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**THE GARMENT INDUSTRY OF BANGLADESH**

**A Comparison between Bangladesh and Finland Denim Business**

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**ABSTRACT**

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<p>The main aim of this thesis was to make a comparison between Bangladesh and Finland's denim business. Several kinds of literature and theories were reviewed when collecting secondary information to complement the study. Questionnaires were also used in the collection of data. Therefore, both primary and secondary data collection methods were applied in this thesis.</p> <p>The research found out that a great disparity exists in the denim business in Bangladesh and Finland. For instance, while technological use in the denim sector is considered to cause unemployment in Finland, Bangladesh thinks otherwise. Besides, the key problems facing the denim sector in Bangladesh and Finland differ. However, certain features are similar between the two countries such as the demographics of the employees in the sector. In both countries, it is the women that make up the majority of the employed.</p> <p>Recommendations made at the end of this thesis could assist garment industries across the globe to identify future challenges and ways to overcome them. Some of the recommendations given at the end of the thesis include the need for training employers and employees on business ethics and communication skills. Conclusions were then drawn to sum up the whole thesis.</p>		

<p><b>Keywords</b> Artificial intelligence, denim business, garment industry</p>
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## **CONCEPT DEFINITIONS**

**RMG** – Ready Made Garment

**MFA** - Multi-Fiber Arrangement

**SFGE** – SF Guest Editorial

**AI** - Artificial Intelligence

**VR** - Virtual Reality

**ABSTRACT**  
**CONCEPT DEFINITIONS**  
**CONTENTS**

<b>1 INTRODUCTION.....</b>	<b>1</b>
<b>2 THE DENIM MARKET.....</b>	<b>4</b>
2.1 Overview of the denim business.....	4
2.2 Denim business in Bangladesh.....	6
2.3 Challenges and opportunities in denim business in Bangladesh.....	8
2.4 Denim industry in Finland.....	9
2.5 Challenges and opportunities in denim business in Finland.....	10
<b>3 RESEARCH METHODOLOGY.....</b>	<b>12</b>
3.1 Research design.....	12
3.2 Research strategies.....	13
3.3 Research sample and sampling procedures.....	13
3.3.1 Research sample size.....	15
3.3.2 Data collection methods and research schedule.....	15
3.3.3 Development of the questionnaire.....	16
3.4 The pilot survey.....	17
3.4.1 Validity of the research instrument.....	17
3.4.2 Analysis of the reliability of the instrument of survey.....	18
3.5 Administration of the questionnaires.....	18
3.6 Response rate and return rate.....	19
<b>4 EMPIRICAL RESEARCH ANALYSIS.....</b>	<b>20</b>
4.1 Information from employees in the denim sector.....	20
4.1.1 Gender composition among denim employees.....	20
4.1.2 Nationality of employees in the denim business.....	21
4.1.3 Lever of education of employees.....	22
4.1.4 Knowledge about employment opening.....	23
4.1.5 Absenteeism at the workplace and factors leading to absenteeism.....	24
4.1.6 Job security.....	26
4.2 Information from employers in the denim sector.....	27
4.2.1 Insurance for employees.....	27
4.2.2 Employer and employee relationship.....	28
4.2.3 State of the factors that determine the status of denim business.....	29
4.2.4 Three most available raw materials for the denim industry.....	30
4.2.5 Effects of technological adoption in the denim sector.....	31
<b>5 RECOMMENDATION AND SUMMARY OF RESEARCH FINDINGS.....</b>	<b>35</b>
5.1 Recommendations.....	35
5.2 Summary and discussion of research findings.....	37
<b>6 CONCLUSIONS.....</b>	<b>39</b>
<b>REFERENCES.....</b>	<b>42</b>
<b>APPENDICES</b>	
<b>GRAPHS, TABLES AND FIGURES</b>	

## **FIGURES**

FIGURE 1. Gender composition among denim employees.....	21
FIGURE 2. Nationality of employees in the denim business.....	22
FIGURE 3. Lever of Education of Employees.....	23
FIGURE 4. Knowledge about employment opening.....	24
FIGURE 5. Absenteeism at the workplace and factors leading to absenteeism.....	25
FIGURE 6. Job security.....	26
FIGURE 7. Insurance for employees.....	27
FIGURE 8. Three most available raw materials for the denim industry.....	31

## **TABLES**

TABLE 1. Bangladesh feedback on employer and employee relationship.....	28
TABLE 2. Finnish feedback on employer and employee relationship.....	28
TABLE 3. Bangladesh feedback on the state of the factors that determine status of denim business...29	
TABLE 4. Finnish feedback on the state of the factors that determine the status of denim business....30	
TABLE 5. Bangladesh feedback on the effects of technological adoption in the denim sector.....32	
TABLE 6. Finland response to the effects of technological adoption in the denim sector.....33	

## 1 INTRODUCTION

The globalization of denim production began early in the 1970s and has so far spread to many countries. The garment organizations have shifted their blue-collar production activities from superior-wage regions to low-expense production areas in industrializing nations. The enhancement of the communication system together with networking has played a critical role in this growth. The garment industry in Bangladesh is considered a very prospecting sector in the country. Locally made apparel used in the making of garments has enabled the industry to thrive and do well in terms of exporting. (Von Broembsen 2018.)

Bangladesh earns approximately \$7 billion annually from exports of textile products, mainly to America and Europe. The ready-made garment (RMG) industry has about 4,000 units across Bangladesh, employing 2.5 million workers, 90% of whom are women from poor backgrounds and households. The garment industry in Bangladesh currently dominates the contemporary economy in export earnings, employment production, and secondary influence. (Hobson 2013.)

Finland boasts of a long history in the clothing and textile industry. The initial industrially produced garments were knitwear and tricot, where the first tricot factors were established in 1740 (Hobson 2013, 317). The knitting machine had already been invented by the late 16th century, two centuries before the weaving machine. By the end of the 19th century, various specialty machines had been developed, and slowly garment factories emerged in Finland. Garment exports increased rapidly and were huge compared to importation in 1965. By the '80s, the export of clothes and textiles in Finland was four times the quantity of imports.

Overall, the Finnish garment sector employs about 22,100 individuals of whom 44% work in retail (Hobson 2013, 317). Furthermore, there are about 3,600 textile and fashion organizations, 23% of which work in manufacturing and about 70% in retail and wholesale (Von Broembsen 2018). The garment industry in Finland is dominated by small businesses, where 9% of them produce 60% of the total revenue of the whole sector (Muthu 2017). The success of the Finnish garment industry is firmly influenced by economic cycles, the activity of the industries of the garments, demand for local or imported services and products, and consumer behavior (Muthu 2017).

Unlike Bangladesh which currently thrives from the manufacture of denim garments, Finland imports most of its clothing from other nations such as Russia, China, Sweden, among others. The denim sub-segment accounts for about two-thirds of Eurozone jeans imports which is valued at €4.63 billion, while the local and technical textile portions account for €4.1 billion and €1.3 billion, respectively. (Hobson 2013, 318.)

Both Bangladesh and Finland are still manufacturing the main apparel products. Therefore, to enter into the value-added products, particularly in denim products, these nations need more patronization and encouragement of study, innovation, and development (Hobson 2013, 318). In today's tech-founded society, consumer behaviors transform rapidly and move to new products.

Bangladesh has a vast chance to develop in the RMG export markets. However, there are a few challenges for Bangladesh to capture more global denim market share. Individuals from the growing sector cite that some of the difficulties experienced in the denim business market include the price of fabrics and getting utility services such as electricity and gas which prevent new investments. (Von Broembsen 2018.)

On the other hand, Finland happens to have a rather modest denim industry today. Similar to the Bangladesh denim market, Finland's denim market also faces a few challenges that tend to hinder denim marketing organizations from succeeding. Recently, most Finnish organizations dealing in denim apparel have had a vision of being in a specific location without really considering the time distinctions with the country. Another challenge faced by the Finnish denim business is finding new offices. (Hobson 2013, 319.)

Lately, there has been fierce competition in the garment industry, particularly the fashion industry. This means that denim production is also facing stiff competition and must, therefore, stay ahead of the competition. Bangladesh is doing quite well in maintaining a competitive edge in this regard, and Finland needs to catch up.

The main aim of this thesis is to compare Bangladesh denim industry to that of Finland. It also aims at highlighting the challenges and opportunities in the denim industry in both countries.

The following objectives guide this study:

- To determine the status of the denim business/market in Bangladesh and Finland
- To discuss the challenges and opportunities in the denim market in Finland and Bangladesh
- To determine the demographics of those employed in the garment manufacturing factories
- To establish the relationship between technological advances and denim business success

The thesis aims at comparing the denim business in Bangladesh and Finland. This information may enable the Bangladesh government and business organizations sponsored by the Finnish government to consider promoting their products internationally, while at the same time encouraging more men to find employment in the denim manufacturing industry. The thesis will create more awareness of different denim products to a fashion-sensitive, 21st century generation present in Bangladesh and Finland.

The distance between the two nations was an issue for the researcher, which prompted the researcher to use the services of a facilitator to get questionnaires to the respondents. Additionally, finding time where all the respondents were available to fill the questionnaires was also quite hard, especially given the time difference between the nations. This led to the researcher allocating more time for data collection.

The thesis is structured into six main chapters, the first one being the introduction constituting the background information, statement of the problem, the aim of the thesis, objectives of the thesis, research questions, significance of the research, and the limitations of the research. Chapter two is an overview of the denim business, comparing the industry in Bangladesh to that of Finland. Discussions presented in chapter two are based on secondary data which include existing literature on the garment industry in Bangladesh and Finland. Chapter three constitutes the research methodology, research design, target population, sample size and sampling procedures, and data collection methods and tools. The fourth chapter constitutes data analysis, presentation, and interpretation based on primary data collected by the researcher while chapter five is the summary of findings and recommendations. Chapter six is the conclusion of the thesis.

## **2 THE DENIM MARKET**

This chapter provides information on research carried out in both Bangladesh and Finland regarding the denim business and market. The review presented here is quite significant because it lays out the main aim of the thesis, reveals what is to be attained and what is yet to be achieved. An overview of the denim business and industry both in Bangladesh and Finland will be provided in this particular chapter in addition to challenges and opportunities existing in the industry.

### **2.1 Overview of the Denim Business**

Given that denim is an in-demand and versatile fabric, its organization can be equally flexible and in demand, considering all the alternatives denim presents to consumers and designers (Chowdhury & Akter 2018). The designer's imagination only restricts the market for custom jackets, denim accessories such as handbags, and jeans. Considered as a mainstream wardrobe staple, the humble jean is still among the most unrepresentative complicated and unexplained garments of all time. It can establish an emotional link with the wearer in the sense that each wear pattern is unique to the person. The jean is also something that one can wear over time and molds to the individual's body, taking on the character (Goodman 2019).

Levi Strauss, a German immigrant, and businessman is recognized as the co-founder of the blue jean, introduced in 1873 in the stir of the California gold rush that had occurred a few years earlier (SF Guest Editorial, 2014). The Bavarian-born co-founder relocated to San Francisco in 1853 from New York to launch a comprehensive dry goods business. It is here that he was approached by one of his tailor customers, Jacob Davis, a tailor who was searching for a business associate to copyright a trouser design constituting fastener located at points of tension to make them long-lasting. The copyright was approved to Jacob Davis and Levi Strauss & Company in 1873, establishing a new group of workwear and marking the origin of the blue jean. (Chowdhury & Akter 2018.)

The clothing's main ingredient, denim, is believed to have originated in the French town of Nimes, with its name an Americanization of its domestic name, Serge de Nimes (Serge from Nimes) (Goodman 2019). Distinguished by an inherent and indigo warp and weft, the vigorous yarn twill fabric in the 19<sup>th</sup> century was employed in making trousers worn by sailors from Italy, regarded by some as the forerunner of the jean, with the French word for Genoa, Genes, having inspired the word jean (SFGE 2014).

Denim was initially employed in garments worn by employees because of its superior durability. It then gained popularity in the 1930s when Hollywood began making cowboy films in which protagonists wore jeans. At the start of the Second World War, the manufacture of the jeans declined, but the world met denim when American soldiers started wearing them while on leave. Soon after the war, other organizations that manufactured denim started emerging, such as Wrangler and Lee. Young adults began wearing denim in the '50s as a means of revolt. Hollywood also inspired the fashion in Marlon Brando's 1953 film, *'The Wild One'* and James Dean's *'Rebel Without a Cause'* in 1955. (SFGE 2014.)

During this period, some public, academic institutions forbade jeans because of what they represented. Denim crossed from counterculture to fashion between the '60s and '70s when producers began making distinct styles of jeans (Chowdhury & Akter 2018). The first denim was tinted from plant *Indigofera tinctorial* while contemporary denim is tinted with artificial indigo (Goodman 2019). The 21<sup>st</sup> century business has seen denim coming in numerous distinct styles, with the inclusion of khakis, chinos, combat, carpenters, and sportswear (SFGE 2014). It is also widely available in different colors, ranging from blue and white, to black and brown. A few years back, it was foretold by American Fabrics magazine that the denim would eventually revolutionize the fashion sector in the future. This prediction has so far come true as it is now considered the most preferred choice of garment for millions of individuals from across the globe.

It is expected that the global denim market will increase following the entrance of western lifestyle and fashion in the form of casualization of garments across the world (Chowdhury & Akter 2018). This factor has increased the use of casual fashion garments such as dresses, shirts, casual shirts, tees, and denim. Presently, the transforming view of formal wear in business and increased preference of western wear among the younger generation are some of the factors driving the sales worldwide (SFGE 2014). Notably, the denim market is grouped into consumer type, distribution avenue, product, and segment. Jeans is presently the pioneering product in the worldwide market that had brought in an estimated \$40 billion by 2016 (Goodman 2019). The preference of denim pants among the younger generations and adults, particular in Bangladesh and Finland is identified as the main reason for its more extensive market, in comparison to other garments (Chowdhury & Akter 2018).

Among the segments, the global market is anticipated to continually account for substantial market gains until 2023 (Muthu 2017). Among all consumer kinds, male category resulted in the denim market gaining revenue of \$27 billion by 2016 (Chowdhury & Akter 2018). As a worldwide trend,

males today, are more interested in casual denim compared to formal wear. This has been attributed to the developing fashion consciousness among them. Given the rising welcoming of fast fashion wear such as shirts, jackets, and jeans for males in business or commercial settings, its demand for males is forecasted to remain ahead to that of females (SFGE 2014).

Among all the distribution avenues, specialty stores have proven to hold the largest share in the worldwide gains of the denim market, something anticipated to reach over \$20 billion by 2023 (Muthu 2017). These stores concentrate on particular products about one product line. With regards to denim, the specialty stores offer a wide choice of garments to their customers. Moreover, the price and quality of denim in these stores are superiorly competitive compared to other distribution avenues (Goodman 2019).

The preference of western lifestyle, particularly in Bangladesh and Finland, has greatly augmented the casualization of garments across the world. It has also enhanced the trend of sporting casual wear garments such as tees, casual shirts, and dresses in nonworking and working segments of the society (Chowdhury & Akter 2018). Notably, an increase in the supply chain is also witnessed in the denim business following increased westernization. The strategies being taken up by denim vendors to raise the degree of coordination among westernization and rising consumer demand is founded on well-linked and stressed supply chain avenues (Muthu 2017).

The current denim sector is superiorly competitive with players coming up with different plans to reach their consumers most efficiently and effectively. Some of the leading players operating in this particular sector include Kering, Gap Inc., VF Corporation, and H&M. (Chowdhury & Akter 2018.)

## **2.2 Denim Industry in Bangladesh**

Bangladesh's denim makers have, in the recent past, enjoyed a healthy rise in export of denim products, particularly in the markets of the European Union and America, surpassing its biggest rival China as the globe's second-largest economy recorded an average growth (Chowdhury & Akter 2018). Commerce evaluators and the individuals in the denim sector cited that the reason for Bangladesh's stable development in export earnings is due to improved technology in fabric production, the commerce battle between America and China, and improvement of security standards in the garment

sector (Muthu 2017). Recently, Bangladesh has witnessed the creation of state-of-the-art denim fabric production plants, which has raised production capability (Goodman 2019).

Bangladesh is fast becoming one of the fastest-growing sites for denim garment manufacturing and export around the globe, with many small and large clothing units. Furthermore, the nation is the world's most compact set of clothing manufacturing with a majority of the units centered on or in the urban Dhaka and some around Chittagong (SFGE 2014). Presently, over 400 textile and garment producers in Bangladesh are exporting an estimated 180 million pieces of denim jeans to the world market annually. Robust Bangladesh's denim sector is generally driven by its high production capability and low manufacturing expense. (Chowdhury & Akter 2018.)

Given the increasing demand for denim garments both locally and internationally, Bangladesh wants to reinforce. Further, its pioneering status in the worldwide denim market and its anticipation to raise its market share to 11% by 2021, from its current 7% has made the nation put efforts to develop its infrastructure and lure international investment. Denim items are considered to be quite significant in terms of export products among the exportable textiles from the emergence of the textile sector in Bangladesh. (Goodman 2019.) Through the increase of demand for denim garment in a worldwide market, a novel opportunity has been established in this nation.

Interestingly, without denim clothing, fashion is somewhat incomplete among the younger generations. Currently, there are about 25 denim manufacturing factories in Bangladesh, totaling an investment of over USD834 million (Goodman 2019). The triumph of denim products and denim was recently broadly covered in the media during the Bangladesh denim expo where reports of superior growth and market shares of the nation's denim garments in important export locations of Europe and North America have raised hope (SFGE 2014).

Bangladesh manufactures 100% cotton denim fabrics, contrary to the blended denim which is widely demanded, worldwide. Nowadays, there is more than the traditional 100% coarse cotton fabric sewn usually with the indigo-dyed warp. Combining with stretch-tolerant threads of artificial fibers that have transformed the features of denim fabric, the performance of the clothing made from denim, and the entire denim business has recently seen an improvement in demand and sales. (Woodward & Miller 2007, 336.)

The waste which remains from Bangladesh's knitwear products is utilized as raw materials for weaving the inherently dyed weft threads since denim requires threads of lower count produced from cotton of shorter staple length (Smith 2018).

Apart from taking in the medium and short-term supply reality check of blended denim fabrics, Bangladesh denim business should consider the rising worldwide market options for blended denim. From what has been observed, stretch and slim fit jeans are the most popular form of casual wear of females and males in the west where Bangladesh's exports go. The fashion trend is moving towards more body contour, the simplicity of wearing and flexibility, lightness and breathability of the fabric (Woodward & Miller 2007, 342). That is why those thinking of investing in the manufacture of denim fabrics should incorporate blended denim in their product line.

### **2.3 Challenges and Opportunities in the Denim Business in Bangladesh**

According to recent studies, about 70% of individuals in Latin America and Europe recline wearing denim, closely followed by 69% in America, 58% in China, and 57% in Japan. To cater to the increasing demand for denim garment to the foreign market, the domestic mills are enrobing on advanced machinery, especially on the weaving and manufacturing part, in addition to setting up large factories in the nation. In 2017, Bangladesh was superiorly dependent on imported denim garments. Today, the country can cater to about half of the demand domestically and are also exporting to several worldwide recognized purchasers. (SFGE 2014.)

Together with opportunities, the Bangladesh denim market also experiences a few challenges, such as infrastructure. Poor road and rail networks, electricity and gas crisis, the need for a deep-sea port, and effectiveness in ports are just some of the few main challenges for the Bangladesh denim sector. Secondly, dependence on outside sources for garments is another challenge, since the nation still imports half of the denim garments. The challenge for the denim sector is adding more value to denim products via design discovery and development. (Chowdhury & Akter 2018.)

Branding and marketing are considered necessary to lure purchasers. Bangladesh faces a massive challenge of doing this effectively. Furthermore, their denim factories lack proper communication and thus need to learn how to engage in foreign affairs. Proper communication can be possible through promotional materials and preparation (Lee 2007). Disagreements between employees and owners, inadequate port facility, lead time complications, shortage of electricity and gas, and advancing rivals in the quota liberal foreign market are but a few of the challenges posing a massive threat to its survival (Chowdhury & Akter 2018.) The availability of competent and trained workforce, weak backward connection, and strong supply chain have also become a huge concern for the RMG sector.

The constant tight monetary policy tends to bring about the superior cost of production. Furthermore, the withholding tax of 1% also influences the production negatively (Woodward & Miller 2007, 345). Lately, Bangladesh RMG exporters have been experiencing serious competition in the foreign market following superior service charges together with interest on the bank loan. Notably, an ordinary denim producing plant requires about BDT 1,000 million first investments (Smith 2018). This is quite high compared to other investments in Bangladesh. That is why a majority of investors want to guarantee that the return is worth it before investing in this kind of business.

Concerning opportunities, the future of Bangladesh's denim business is quite bright as worldwide importers have acknowledged that the nation is not only competitive in price but can only produce superior fashion denim (Muthu 2017). Bangladesh's denim business is anticipated to enter a different period with significant expansion and significant upgradation boosted by the confidence of worldwide purchasers.

## **2.4 Denim Industry in Finland**

Following the fall of the Soviet Union during the early '90s, the Finnish garment industry has been on the decline. The clothing retail stores, on the other hand, are doing quite well. Regardless of the economic crisis, consumers are still purchasing garments, and new retail stores are entering the market (Goodman 2019). As already mentioned, the Finnish garment sector is rather versatile, and organizations are manufacturing garments for different purposes. Notably, the garment industry tends to concentrate on the design of the product. Unlike Bangladesh, Finland imports most of its denim product because the nation's production lines have been closed following superior manufacturing expenses (SFGE 2014). Whatever little is manufactured happens to be of excellent quality.

To compete against athleisure, denim jeans producers in Finland are taking up and discovering consumer needs. The influence of athleisure on denim has brought about fabric discovery and a shift towards a new sustainable manufacturing process (SFGE 2014). Increased consumer demand for comfort has prompted denim brands to explore fabric technology. Interestingly, all Northern European nations have a blend of European and Asian denim suppliers, apart from Finland, where about 93% of denim imports are gotten from other European countries (Lee 2007).

## **2.5 Challenges and Opportunities in the Denim business in Finland**

The denim business in Finland is presently experiencing much pressure. The extreme superior end of the denim jeans market indeed stays vigorous, but the whole market for the product across the globe has slowed down. Another challenge facing the denim business in Finland is synthetic fibers (Goodman 2019). To minimize the cost of mass-market denim jeans manufacturer, most producers have replaced cotton with polyester. Concerning trends, a regular decline in summative denim capability in Finland is possible over the coming years, as ineffective mills are dismantled (SFGE 2014).

Europe, generally, is mainly a net-importer of denim garments. It also boasts of a modest denim sector presently, but the current capability is centered primarily in Italy. Notably, it is not just authenticity that affects the denim market in Finland. Economics also plays a part. Once fabric organizations saw a chance to sell more inexpensive materials, they transformed the ingredients from indigo cotton to combine with synthetic fibers (Chowdhury & Akter 2018). As already indicated, the chance for mass denim jeans manufacture saw producers substitute costly cotton with polyester and stretch.

Additionally, Finnish garment organizations and mills rushed to find better economically priced fibers for utilization in their denim, preparing to cater to the demand for cheap superior street jeans (Goodman 2019). An increase in demand for genuine product and innovation has returned demand for genuine product and smaller brands. Today's denim business advantage is in the increased flow of products together with the integration of transportation modes and networks (Woodward & Miller 2007). The improved sea, road, air, and rail links via and within Finland establishes a unique business setting for delivery hubs and logistics services (Smith 2018).

Similar to the situation in Bangladesh, the demand for super premium and premium denim is on the increase in Finland. Premium consumers prefer purchasing garments with a narrative, those that are sustainable and authentic (Muthu 2017). In the nation, jeans are mostly made from dark or raw denim, but a majority are cured or cleaned to give a variety of colors ranging from light to dark blue. Apart from the blue denim, there are other color jeans such as red, white, green or black, printed denim, coated denim, or printed denim (Woodward & Miller 2007, 348). The leading styles for Finnish females' jeans include slim fit, high waist, and tapered jeans. The males' styles include skinny jeans, straight, and slim jeans (Smith 2018).

In the last ten years, Finland has witnessed an increasing trend in mobile and online shopping. This has, in turn, provided growing opportunities for straightforward customer sales for denim products across the globe. While it is quite challenging to establish and market a new product, the rising significance of online sales and marketing has eased the process than before. Notably, fast fashion brands such as denim jeans increasingly depend on social media to drive their sales (Muthu 2017). Digital avenues no longer only serve to give pre-buying information. They also serve as standalone deal platforms.

### **3 RESEARCH METHODOLOGY**

In this chapter, the research methodology will be provided that shows the methods used by the research to meet the objectives of the research. The first three sections describe the research design, which is followed by the research approach and lastly the target population. The target population will also be identified. The proceeding parts describe the sample and the procedure used in selecting the sample. The last part discusses the questionnaire design and data collection instrument.

#### **3.1 Research Design**

This thesis is aimed at providing a comparative analysis of the denim business in Bangladesh and Finland. This section provides an overall strategy that allows the integration of various components that enables the researcher to address the objectives of the research as outlined in chapter one. Research design encompasses a blueprint that allows the research to select data collection methods, measure variables and analyze and analyze findings (Creswell & Creswell 2017).

The research objectives determine the method to be used in carrying out research (Marczyk, DeMatteo & Festinger, 2017). Two common research methods exist; qualitative and quantitative methods. Quantitative research design utilizes observations and numerical data to explain and examine the reflection of observation. On the other hand, qualitative research design uses observation and non-numerical data to explain the meaning and organization of relationships (Kratochwill 2013). In this thesis, quantitative research methods were appropriate because they enabled the researcher to sample the research population before data collection and use questionnaires in collecting data from respondents by use of facilitators.

The thesis had four objectives; the first objective was to determine the status of the denim business in Bangladesh and Finland. The second objective was to discuss the challenges and opportunities in the denim market in Finland and Bangladesh. The third and fourth objectives were to determine the demographics of those employed in the garment manufacturing factories and to establish the relationship between technological advances and denim business success consecutively. Analysis of primary data will be carried out later on.

### **3.2 Research Strategies**

A research strategy guides the researcher in answering the research objectives (Kratochwill 2013). Therefore, the research objectives determine the strategy that the researcher will employ. However, other than the objectives of the research, other factors determine the research strategy, and they include philosophical underpinnings, time available to conduct research, and the extent of existing knowledge (Cresswell 2014). This thesis made use of a survey research strategy and used questionnaires to collect data from the study population.

The reason for choosing this method is because survey enables the researcher to gather a large amount of data from the population under study (Cresswell 2014). Another reason for choosing survey method is because it enables the researcher to gather information from respondents by use of questionnaires without necessarily having to be present in the field to collect the information. Additionally, survey method was appropriate because the study population, which is comprised of employees and employers in the denim sector in both Bangladesh and Finland is large hence a need to select a sample to represent the general study population.

For any researcher, the researcher needs to outline the unit of analysis. In this thesis, the collection of data and analysis was done at an individual level. Therefore, the individual was the unit of analysis. The individuals that will take part in this research include employers in the denim sector in both Bangladesh and Finland and employees in the denim sector in both Bangladesh and Finland. This sample is appropriate for the research because the thesis compared the denim business in Bangladesh and Finland. Besides, the objectives of the research have a close relationship with officials, professionals, and stakeholders in the denim sector, who can recognize the prevailing situation of the denim industry.

### **3.1 Research Sample and Sample Procedures**

Any research that involves human beings ought to have a clearly defined study population. Consequently, it is important to define the research population because it helps in determining individuals who are eligible to take part in the research. Outlining the research population is also useful in assuring the overall validity of the results found from the research (Creswell & Creswell

2017). The research population is a large collection of individuals or objects put under study. Large sizes of the population always lead to the researchers failing to test every individual in the population. This is because large sizes consume a lot of time and are costly. Creswell & Creswell (2017) are of the view that targeting the appropriate population that will answer research questions is important.

A sample is a subset of the population that is used as a representation of the whole population (Baran & Jones 2016). Sampling is important in this research because the number of people involved is too large hence the researcher may not be able to survey the entire population. Therefore, this research selected samples of a given population and used their feedback to generalize on the entire population. The researcher was cautious and ensured that the selected sample represented the entire target population that includes employers and employees of denim products in both Bangladesh and Finland. It was, therefore, possible for the researcher to generalize the outcomes of the research from the sample.

According to Baran & Jones (2016), there are two categories of sampling that include probability sampling and non-probability sampling. Both probability and non-probability sampling techniques select participants randomly. However, unlike non-probability sampling, probability sampling makes use of computers to generate random numbers. By using computers, the computer program is programmed to procedure or process different units in a population. This ensures that different units in a population have equal chances of being selected. In non-probability sampling, on the other hand, the technique, not all objects in the population have equal chances of being selected to serve as the sample population. The researcher's judgment and accessibility of the study population is, therefore, the main determinant for the choice of the sample population. In this thesis, large non-probability sampling was used because it gives more reliable results than a small sample size. Besides, the use of facilitators in the field to disseminate questionnaires to participants led to the researcher opting for non-probability sampling to enable the facilitator to disseminate questionnaires based on the availability of respondents and willingness to fill the questionnaires.

In the research, simple random sampling technique was used in selecting participants. The technique is appropriate for the thesis because it gives every total sampling unit of the populace a balanced and recognized nonzero probability of being chosen. Random sampling is guaranteed by using the lottery technique or the utilization of a table of random numbers. The lottery technique was used to choose the sample size.

### **3.1.1 Research Sample Size**

This thesis sample size was chosen based on the guide by Ronald Conroy on how to choose samples. The minimum sample size should be 100 while the maximum size should be 1000 (Baran & Jones 2016). Baran and Jones also recommend that, in an instance where the population is less than 100, all of them should be surveyed.

The target sample population for this research, therefore, constituted a total of 200 participants. 100 participants were from Bangladesh while the other 100 were from Finland. The researcher targeted the areas in Bangladesh and Finland that have the most denim businesses. The research focused on Dhaka because it has the highest number of denim businesses. In Finland, the researcher targeted Helsinki. The main reason for choosing the capital city is because it has many denim businesses. Besides, some entrepreneurs have abandoned their denim businesses in the two research areas, hence there was a need to know why they would do so.

In Bangladesh, 40 respondents were owners of denim businesses in Dhaka and 60 other respondents were employees in the denim industry in both Bangladesh. The remaining 100 participants were from Finland. 60 employees in the denim sector in Finland were put in the sample. The respondents were aged between 40 years and 68 years old and worked at garment factories within Helsinki. Additionally, the Finnish respondent sample constituted 40 employers owning denim businesses.

### **3.3.2 Data Collection Methods and Research Schedules**

Data collection is the process through which information is collected from different sources to help in meeting objectives set by a researcher (Gill, Stewart, Treasure & Chadwick 2008, 291). Different methods of data collection exist. However, the methods are primarily divided into primary methods, secondary methods and mosaic information. Primary data collection methods entail the collection of all kinds of information obtained from first-hand experience. Such data is usually collected from the field instead of books or other written materials. Conversely, three methods of data collection can be employed to obtain primary data. One of the methods is by using a questionnaire. The use of questionnaire is most common because of its simplicity which involves simply asking questions to an already selected sample of respondents. In this thesis, questions were asked using the survey method. Another method of collecting primary data is by observation. Observation entails looking at respondents in their natural setting and record behavioral patterns. In this thesis, observation method was not used because it was the facilitators that were in the field and not the researcher. Besides,

observation method is commonly used when the sample population is small (Johnson & Turner 2003, 306).

The collection of quantitative data can be done through two methods; the use of questionnaires and the use of structured interviews. The researcher is guided by the objectives of the research and the type of data to collect in choosing the quantitative data collection method to use. In this thesis, the use of questionnaires to collect data was chosen and applied by the researcher. The main reason for opting for questionnaires is because it is quantitative in nature thereby leading to collection of first-hand information. Besides, questionnaires are ideal when collecting data from a large population. Additionally, the use of questionnaires enables the researcher to collect data from respondents who have a limited time of responding to research questions and are always busy, as is the case with employees. (Bourque & Fielder 2003.)

### **3.3.3 Development of the Questionnaire**

Questionnaires were the main data collection tools in this thesis. A questionnaire is a research instrument that is made up of a series of questions which assist a research in gathering information from research participants and can be carried out in using three ways that include the use of a computer, by telephone, or by face to face interaction (Lyberg, Biemer, Collins, De Leeuw, Dippo, Schwarz & Trewin 2012). Therefore, the questionnaire enables the researcher to collect data from a larger population in a quicker, efficiently and easier way. However, the researcher is supposed to be careful when collecting data from respondents using face to face method because some respondents may lie to look good in the face of the researcher, or to present a positive image of themselves (Lyberg et al 2012).

The research used similar questionnaires for respondents from both Bangladesh and Finland. The main reason for developing similar questionnaires was to come up with a comparative analysis of the denim business in the two countries. Two methods of coming up with questionnaires exist. One of the methods is by freshly developing a questionnaire while the other method is adopting a questionnaire from previously done research (De Vaus & de Vaus 2013). In this thesis, the questionnaires used were freshly developed by the researcher.

### **3.4 The Pilot Survey**

A pilot survey is a research that is conducted by only a smaller segment of the sample of respondents selected by the researcher to test and refine the survey instruments (Arain, Campbell, Cooper & Lancaster 2010, 67). According to Arain et al. (2010, 67), in any survey research, a pilot survey must be conducted to confirm the validity and reliability of questionnaires before the actual research is carried out. Therefore, a pilot survey is essential to get rid of any uncertainties or inconsistencies in the instrument of measurement before administering the instrument of measurement, in this case, the questionnaires to participants to ensure that appropriate responses from the respondents are obtained (Arain et al 2010, 67).

A Pilot survey was conducted between 8th and 22nd June 2019 in Dhaka and Helsinki using 42 questionnaire samples, which is an adequate number according to Arain et al. (2010, 67). Dakar and Bangladesh are the capital cities of both Bangladesh and Finland consecutively hence have many denim businesses, entrepreneurs and customers. The pilot study was carried out before the actual research was conducted primarily to ensure that the questionnaire and data analysis techniques were reliable. Besides, the pilot study was also conducted with a view of evaluating the general feasibility of the study and find out whether the respondents have understood the questions developed in the questionnaires. Therefore, the pilot survey was instrumental in helping the researcher revise the questionnaires that had previously been developed. A pilot survey has two distinct steps that include validating the research instrument as well as testing the reliability of the survey instrument.

#### **3.4.1 Validating the Research Instrument**

In survey research, the validity of the research instrument is conducted to assist in the identification of how efficient the elements presented in the questionnaires are presented and understood by the respondents. Therefore, carrying out content reliability and validity analysis of the research instrument is vital for any survey research. Validity is important as it helps in determining whether research objectives are accessed by the research instruments. (Resnick & Jenkins 2000, 155.)

In this thesis, content validity was carried out by distributing some questionnaire samples to owners and employees of denim businesses, who gave their feedback and judgment on the item suitability used in answering the research objectives. Below are the suggestions, recommendations, and

comments from the pilot survey. The feedback was used to improve the wording and the content of the questionnaires.

First, it was suggested that the numbering of items in the questionnaires should be in a sequence. It was also recommended that it is essential to separate the instruction section from the section with objective questions. Additionally, it was recommended that the demographic questions be asked with a lot of politeness and humbleness because of their nature. Lastly, it was recommended that measurements are written in an assertive manner instead of writing them in a way that gives a directional opinion to the research participants.

### **3.4. 2 Analysis of the Reliability of the Instrument of Survey**

Reliability of the survey instrument is essential because it ensures that data coming from the use of a particular research method are consistent (Martz 2014.) Reliability is also important in survey research because it ensures that the research construct is free from bias and errors. In this thesis, the coefficient alpha was used to measure the internal consistency reliability of the questionnaires. Coefficient alpha ranges between 0.0 to 1.0 and measures participant's consistency in responding to a single set of items. The minimum value to be accepted when measuring reliability is 0.70 (Melchers & Beck 2018).

In this thesis, the researcher distributed 42 questionnaires that had been adjusted to test the reliability of the measurement instrument. 35 questionnaires from the 42 that were distributed were retrieved by the researcher. This represented a response rate of 83% of which four questionnaires retrieved were blank while 31 of the questionnaires were filled. Therefore, the survey instrument scored a coefficient alpha value of 0.833.

### **3.5 Administration of Questionnaires**

Survey method was used in this thesis as the main method of data collection. Consequently, questionnaires were put in use in collecting data from the sample population. The researcher decided to settle on survey method because survey method helps the researcher to divide the research population to different segments for easier understanding even when the population is large. This thesis aimed to provide a comparative analysis of the denim business in Bangladesh and Finland. Questionnaires were,

therefore, designed, tested and modified, with questions that seek to explain the status and relationship between denim business in Bangladesh and Finland.

The thesis used questionnaires that were developed based on the existing literature on denim production in both Bangladesh and Finland. According to Zohrabi (2013), various ways of administering questionnaires to participants exist. However, in this thesis, the researcher made a facilitator in administering questionnaires to participants. The reason for choosing to use facilitators in administering questionnaires is because the researcher was not at the research destination center during data collection period. Questionnaires were sent to the facilitators by use of email, which were then downloaded, printed and distributed to respondents. The researcher attached clear guidelines on how to fill the questionnaires that were read by the facilitators to the respondents before the actual process of filling the questionnaires began.

Data collection exercise took a period of 28 days, beginning from 03rd July to 31st July 2019. Initially, the process was supposed to end on 22th of July 2019 but due to an extension request by the facilitators, the researcher had to extend the research period by a week. During this period, 200 questionnaires were distributed by facilitators to research sample participants. At the end of data collection period, the researcher retrieved 145 questionnaires. 18 questionnaires out of 235 were found black, while some were wrongly filled hence could not be used in the analysis. Therefore, only 127 questionnaires were used in data analysis.

### **3.6 Response Rate and Return Rate**

Calculation the response rate is done by dividing the number of participants that participated in answering a research survey by the number of individuals in the research sample. The return rate, on the other hand, is obtained by dividing the total number of questionnaires that are returned to the researcher after the data collection process by the total number of questionnaires that were distributed to the research sample (Baruch & Holtom 2008, 1143).

In this thesis, 200 questionnaires were distributed to respondents out of which 145 questionnaires were retrieved. This indicates a 72% return rate. Consequently, 127 questionnaires were used in data analysis, thus giving a response rate of 63%. A good response rate usually ranges between 30-40% (Baruch & Holtom 2008, 1146).

## **4 EMPIRICAL RESEARCH ANALYSIS**

This chapter will focus on the analysis of the information collected by the use of questionnaires and present it in graphs, charts, and tables. It also aims to provide a comparative analysis of the present situation in the denim sector in both Bangladesh and Finland through the information provided by the respondents from both nations.

The main aim of this thesis was to look at the status of the denim business in Bangladesh and compare it to Finland. The research looked at the relationship between the working conditions and the challenges faced by the employees. It concentrated on workers and employees from two distinct nations; Bangladesh and Finland.

### **4.1 Information from Employees in the Denim Sector**

This section will present and discuss findings from the research conducted on employees in the denim sector in both Bangladesh and Finland.

#### **4.1.1 Gender Composition among Denim Employees**

The researcher analyzed the gender of employees in the denim sector in both Bangladesh and Finland. From the analysis, it was found out that in Bangladesh, 75% of people employed in the denim sector were females while 25% were Males. In Finland, the males were 44% while females were 66%.

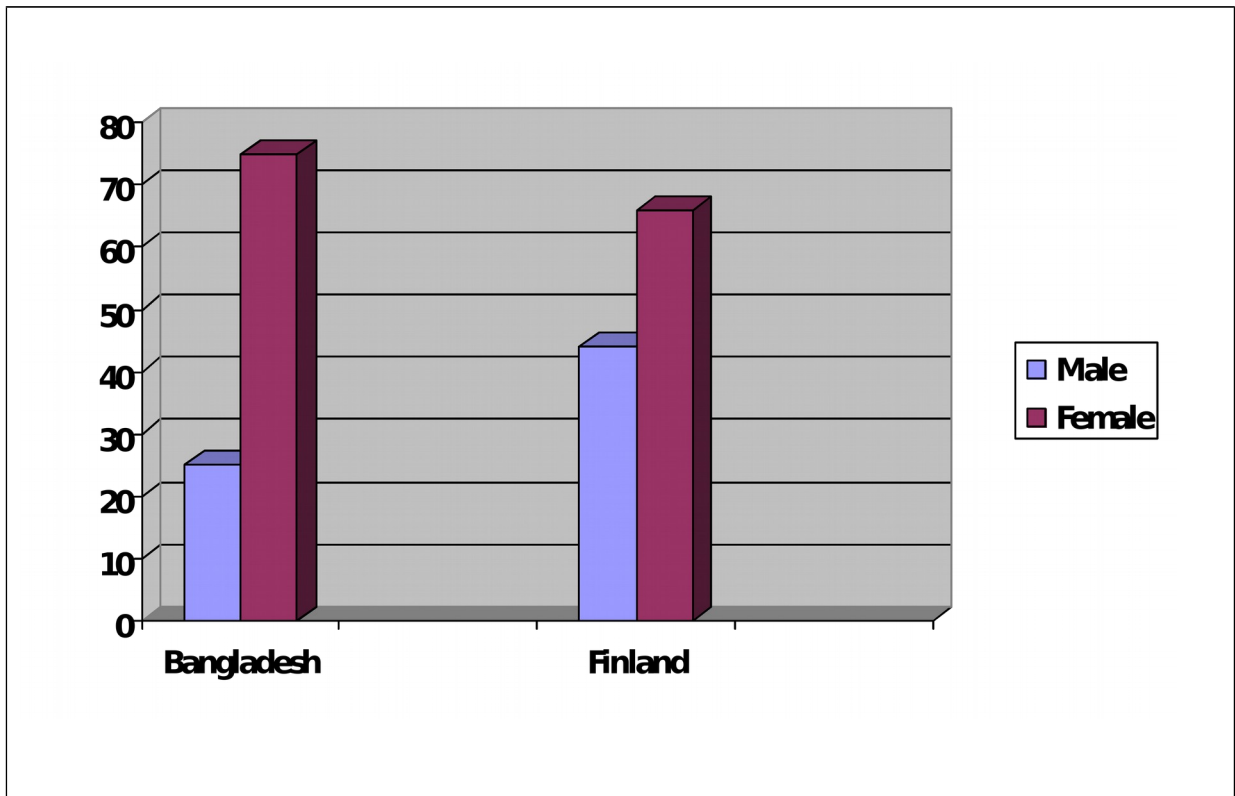


FIGURE 1. Gender composition among denim employees

From figure 1, it is evident that the demographic composition of the working population in Bangladesh and Finland is similar, with a higher number of females employed in the denim sector in both countries. However, in Bangladesh, the male population greatly surpasses the female population as compared to Finland where the difference is slightly smaller.

#### 4.1.2 Nationality of Employees in the Denim Business

The feedback from the field revealed that in Bangladesh, 92 % of employees were from Bangladesh, with 8% of the employees hailing from other countries including India and Myanmar. In Finland, the research revealed that 34% of the employees in the denim sector were Finns while 66% of the employees were from other countries such as Bangladesh, Mexico, and India.

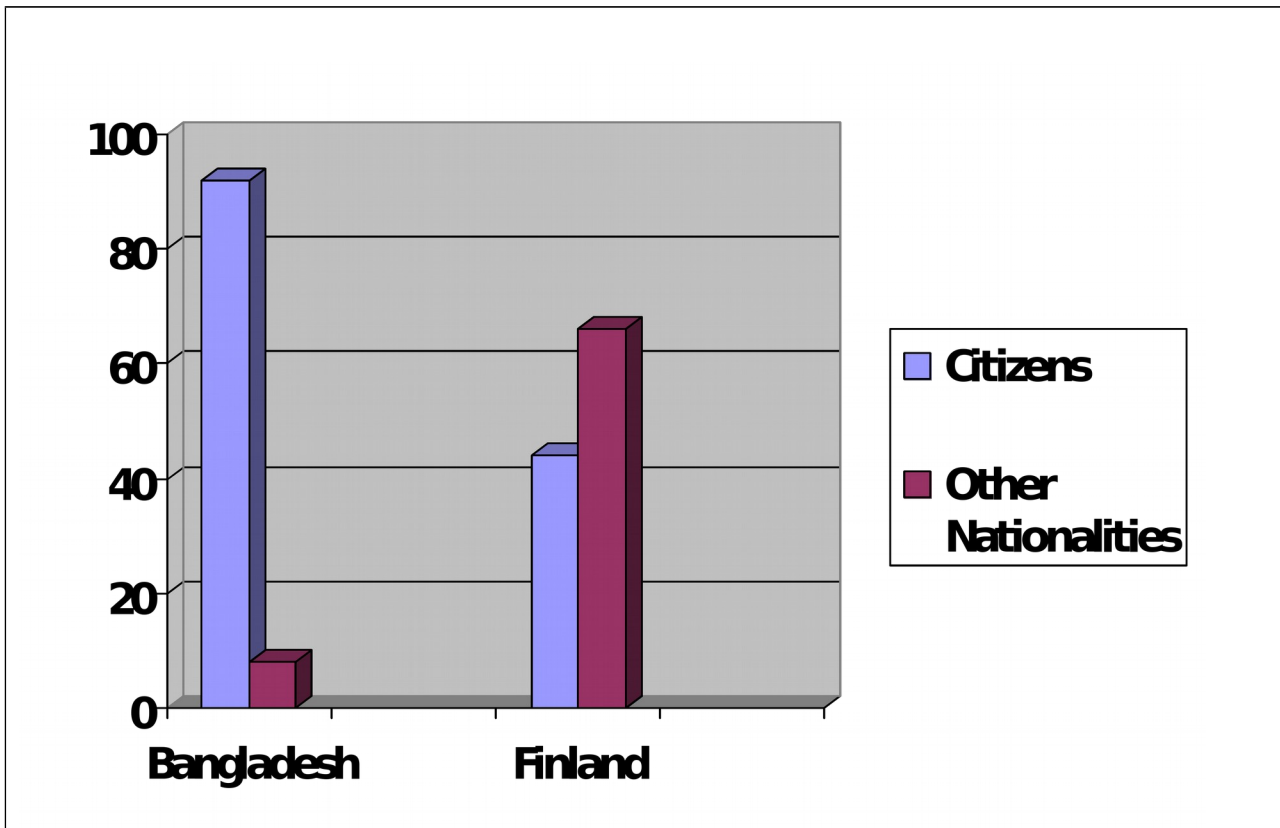


FIGURE 2. Nationality of employees in the denim business

From figure 2, it is evident that in Finland, certain factors attract citizens from other countries to the denim business. In Finland, it is the local inhabitants that dominate the denim employed sector.

#### 4.1.3 Lever of Education of Employees

The research revealed that, in Bangladesh, 83% of respondents employed in quality control, packing and cutting have at least finished their primary education, and 63% had finished their secondary education. However, for sewing, the researcher discovered that 17% of the respondents had never attended school. No respondent had finished undergraduate studies. In Finland, it was only 8% of the respondent, from sewing and packaging that had not attended schooling. 92% of the respondents had finished primary education, while 65% of the respondents had completed their secondary education. 36% of the respondents had at least attained a graduate certificate.

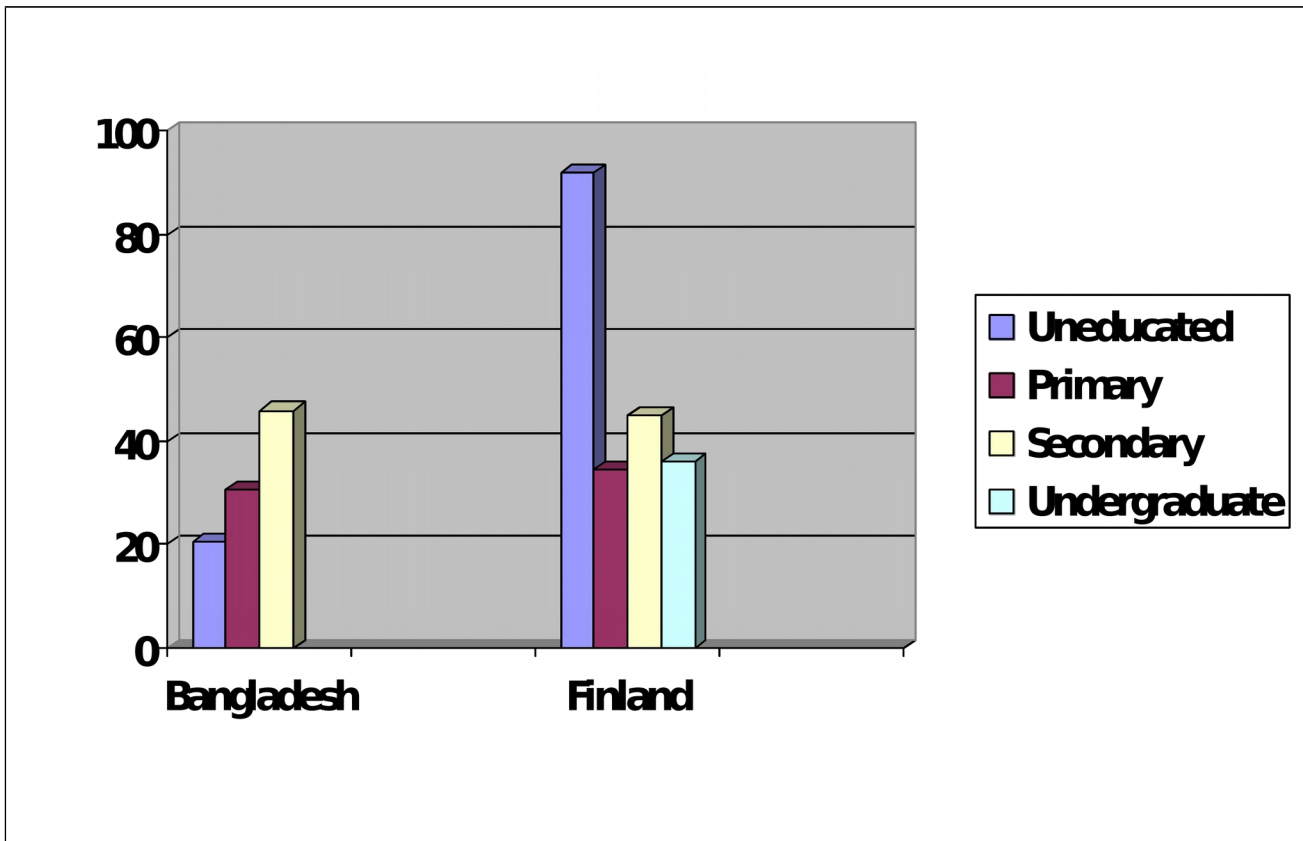


FIGURE 3. Level of Education of Employees

From figure 3, some employees in the denim sector in Finland have attained undergraduate studies. In Bangladesh, employees in the denim sector have only attained primary education. From the research, a majority of employees in the denim sector in both Bangladesh and Finland have attained primary education.

#### 4.1.4 Knowledge about Employment Opening

The research revealed that 53% of employees in Bangladesh got employed through family referrals, 34% through referrals by friends, 8% through Application while the remaining 5% was by self-employment. In Finland, the research found out that 36% of employees in the denim market knew about job openings through family referrals, 32% through referrals by friends, 26% through application and 6% run small scale businesses where they employ themselves.

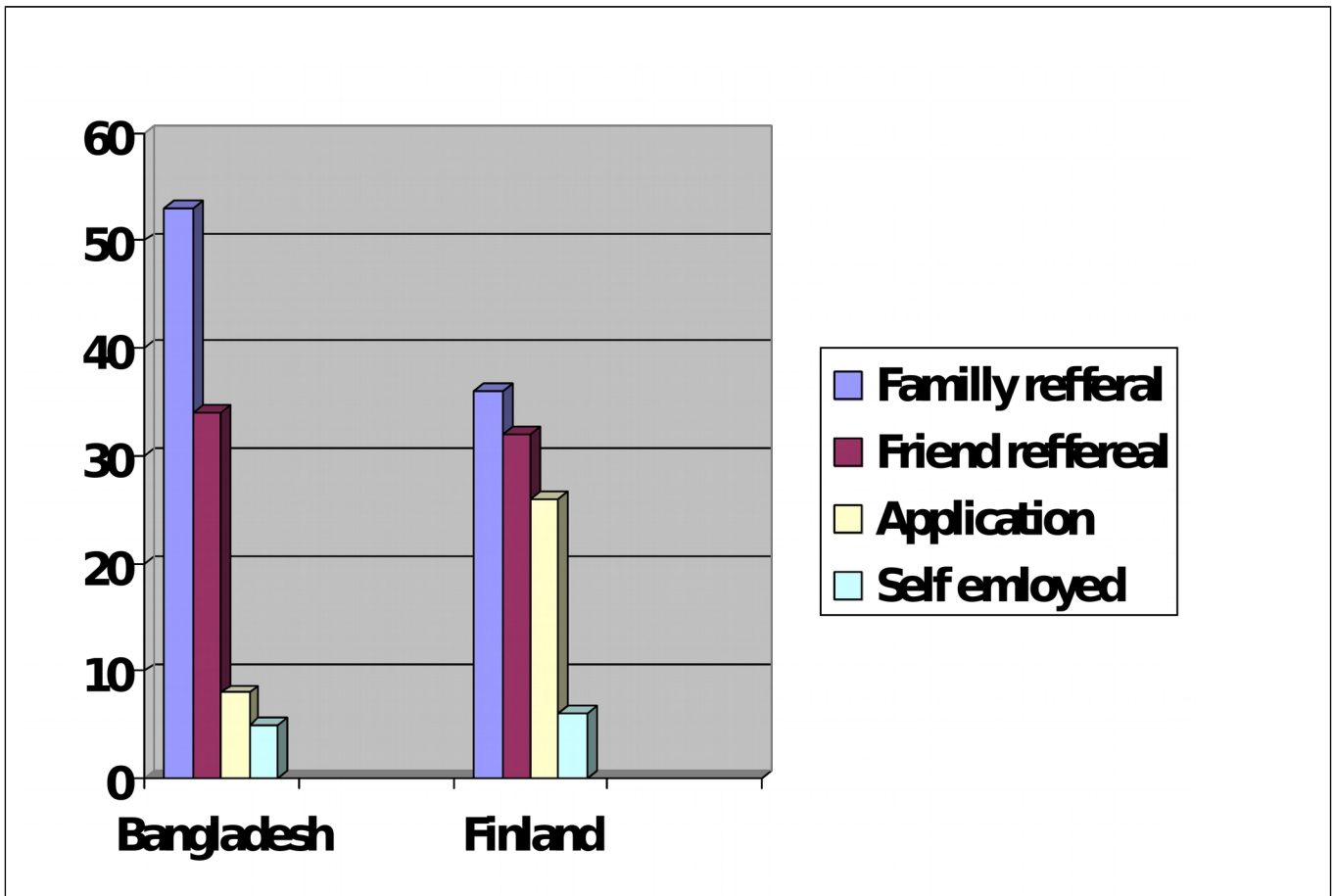


FIGURE 4. Knowledge about employment opening

From figure 4, the majority of employees in the denim sector in both Bangladesh and Finland get to know about job openings by the use of family referrals. Besides, in both countries, family and friend referrals take first and second positions consecutively. Keeping small denim businesses that have only one employee, who is the entrepreneur is low in both countries.

#### 4.1.5 Absenteeism at the Workplace and Factors Leading to Absenteeism

The research revealed that in Bangladesh, 22% of the respondent had been absent from work in the past one month, while in Finland, 18% of the employees reported having been absent at the workplace in the past one month. Based on the absentees, the researcher found out that the major problem leading to absenteeism in Bangladesh was work environment which scored 38%, followed job satisfaction that had 27%, which was followed by transportation at 11%, health-related issues at 10%, wage policies at 8% and lastly stress, which scored 6%. In Finland, the researcher realized that the greatest contributor

for absenteeism was job satisfaction at 36%, followed by wage policies at 23%, which was followed by health-related issues at 18%, then work environment at 10%, then stress at 8%, and lastly transportation scored 5%.

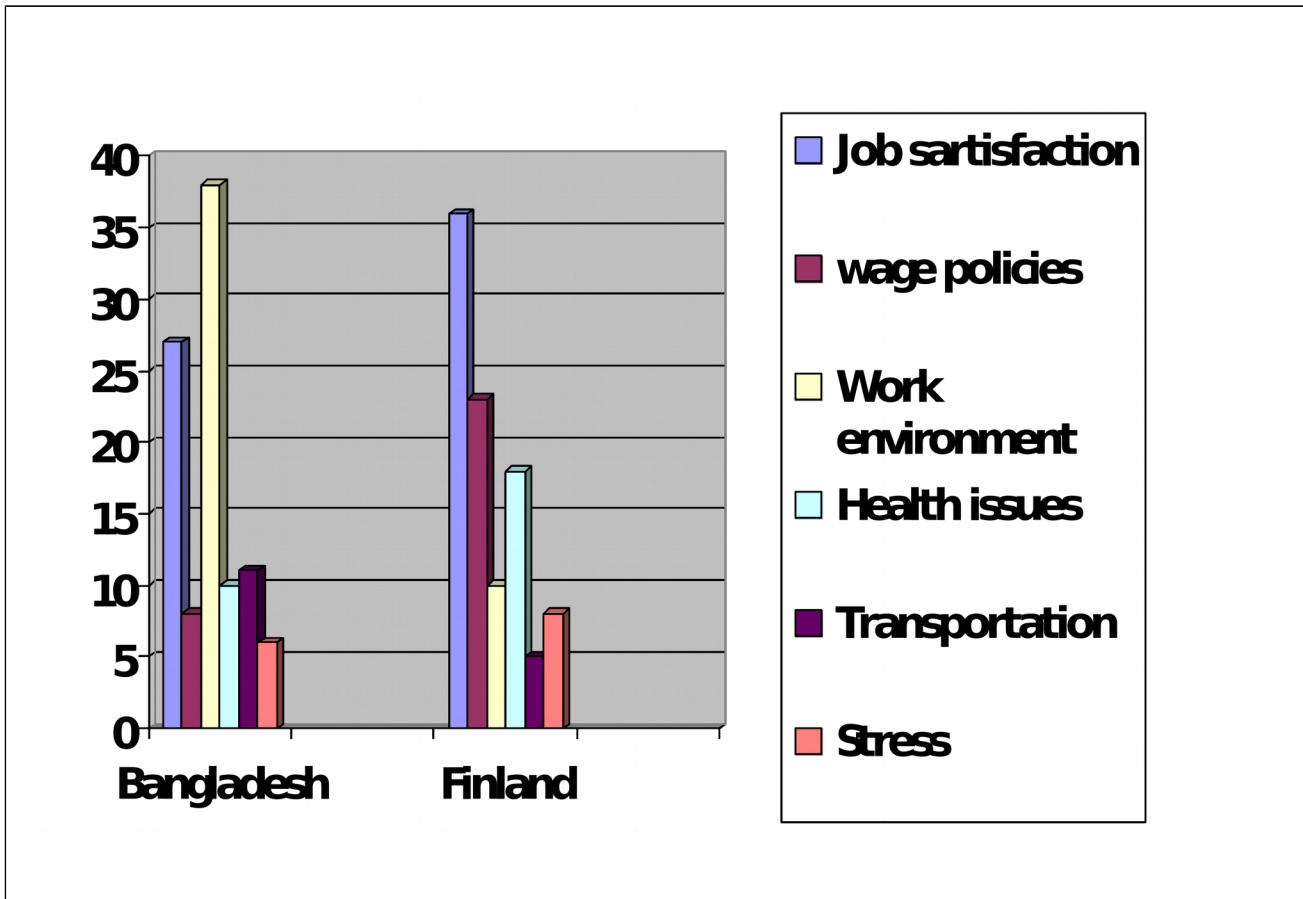


FIGURE 5. Absenteeism at the workplace and factors leading to absenteeism

From figure 5, the kind of problems that face denim employees in Bangladesh and Finland hold different intensities. While in Bangladesh it is the problem of work environment that is felt by most employees, in Finland, it is wage policies. Consequently, in Bangladesh, Stress is the least felt problem by employees in the denim sector, while in Finland it is transportations.

#### 4.1.6 Job Security

The question of job security received different feedback from Bangladesh and Finnish respondents. In Bangladesh, 67% of respondents were satisfied with job security, 23% were not satisfied while 9% of

respondents were unsure. In Finland, the response was different. In Finland, 71% responded to fear to lose their jobs, while 25% of respondents are comfortable with job security. Only 4% of respondents are unsure of how they feel about their job security.

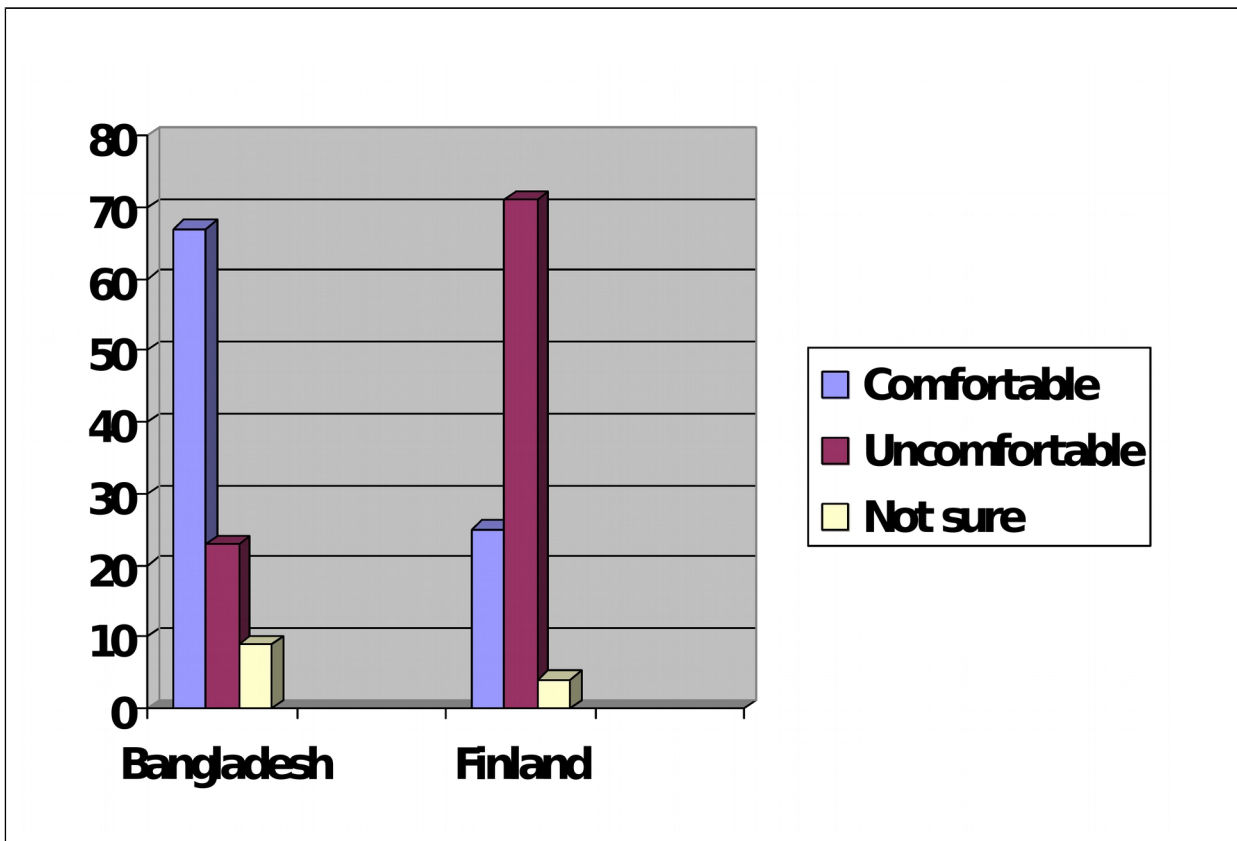


FIGURE 6. Job security

From figure 6, denim employees' feeling on job security also differs between the two countries. In Bangladesh, most employees in the denim sector are comfortable with the security of their jobs. In Finland, it is opposite, whereby a majority of employees in the denim sector fear to lose their jobs.

#### 4.2 Information from Employers in the Denim Sector

The researcher made a comparative analysis of the feedback from employers in the denim business. From the analysis, the researcher found out that employers in the denim sector in Bangladesh and Finland hold different views. The following section provides an analysis based on respondent's feedback, documented in graphs and tables.

### 4.2.1 Insurance for Employees

The question of employee insurance attracted different feedback from employers in the denim sector in Bangladesh and Finland. In Bangladesh, 22% of employers reported that their employees have been insured by one or more insurance agencies, while Finland, 85% of employers reported having employees insured by one or more insurance companies.

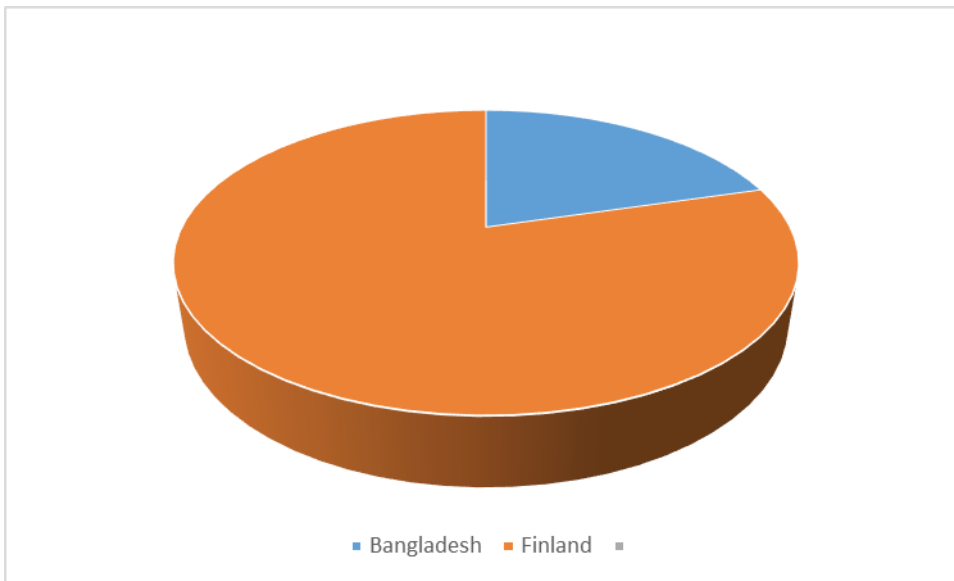


FIGURE 7. Insurance for employees

Figure 7 shows that a very large number of employers in the denim business in Finland consider hiring employees with insurance cover. In Bangladesh, the situation is different. Employers tend to hire employees without having to consider whether they are insured.

### 4.2.2 Employer and Employee Relationship

The relationship between employer and employee in Bangladesh and Finland was analyzed and presented in table 1 and table 2 below. The question was specific to employees working in certain areas within the denim business setting.

TABLE 1. Bangladesh feedback on employer and employee relationship

%	Very bad	Bad	Moderate	Very good	Excellent
Quality Control	0	0	12	38	50
Packing	0	5	57	27	11
Cutting	0	0	17	35	48
Sewing	0	2	14	9	75

Table 1 shows that among different sectors of denim business, there is no very bad employee and employer relationship. Consequently, it is only in packing and sewing that there are bad employer and employee relationship. However, in the two sectors, only 5% and 2% of employers have bad relationships with their employees. Employees' relationship at the sewing section had the best score, with an excellent score of 73% followed by quality control which had 50% of employers having excellent relationships with their employees.

TABLE 2. Finnish feedback on employer and employee relationship

%	Very bad	Bad	Moderate	Very good	Excellent
Quality Control	0	0	8	29	63
Packing	0	12	34	32	22
Cutting	0	3	25	45	27
Sewing	0	0	12	13	73

In Finland, respondents' feedback analyzed and presented in table 2 shows that there was no very bad relationship between employees and employers in the denim business. Unlike in Bangladesh, there is a bad relationship between employees and their employers in the packing and cutting sectors which recorded 12% and 3% of the employer population having bad relationships with their employees. Like in Bangladesh the sewing and quality control sections had the highest percentage, with 73% and 63% of employers having excellent relationships with their employees.

### 4.2.3 State of the Factors that Determine the Status of Denim Business

The factors presented to respondents included access to financial institutions, government investments in terms of giving incentives and promotions, technological availability and speed of the denim product reaching the market. The respondents were to rate the factors depending on how their state is in Bangladesh and Finland.

TABLE 3. Bangladesh feedback on the state of the factors that determine the status of the denim business

%	Very bad	Bad	Moderate	Very good	Excellent
Access to financial institutions	47	49	4	0	0
Government Investment in giving incentives and promotions	22	25	27	26	0
Availability of technology	25	58	12	5	0
Speed-to-market	13	52	13	12	9

In table 3, the Bangladesh employers were of the view that the most appealing factor was speed to market, which had an excellent score, backed by 9% of the employers. Access to financial institutions, availability of technology had the worst rating with the highest number of employers sighting the two to be in a very bad condition by 47% and 25% of the employers consecutively.

TABLE 4. Finnish feedback on the state of the factors that determine the status of the denim business

%	Very bad	Bad	Moderate	Very good	Excellent
Access to financial institutions	26	67	7.0	0	0
Government Investment in giving incentives and promotions	8	15	38	30	7
Availability of technology	9	14	21	52	4
Speed-to-market	12	14	48	16	10

Table 4 is the analysis from Finnish respondents, which shows speed to market and government investment in giving incentives and promotions having an excellent score, with a backing of 10%, 7% and 4% of the employers consecutively. In Finland, as is in Bangladesh, all factors are in a very bad condition, with access to financial institutions having the highest backing of 26% of the employer population.

#### 4.2.4 Three most Available Raw Materials for the Denim Industry

The item on the most available materials for use in the denim business received varied answers in Bangladesh and Finland. In Bangladesh, the three most available raw materials were fabric, trims, and yarn, which had 98%, 90% and 87% of the employers backing them. In Finland fabric, yarn and leather had the highest backing by 92%, 88% and 74% of the employer respondents.

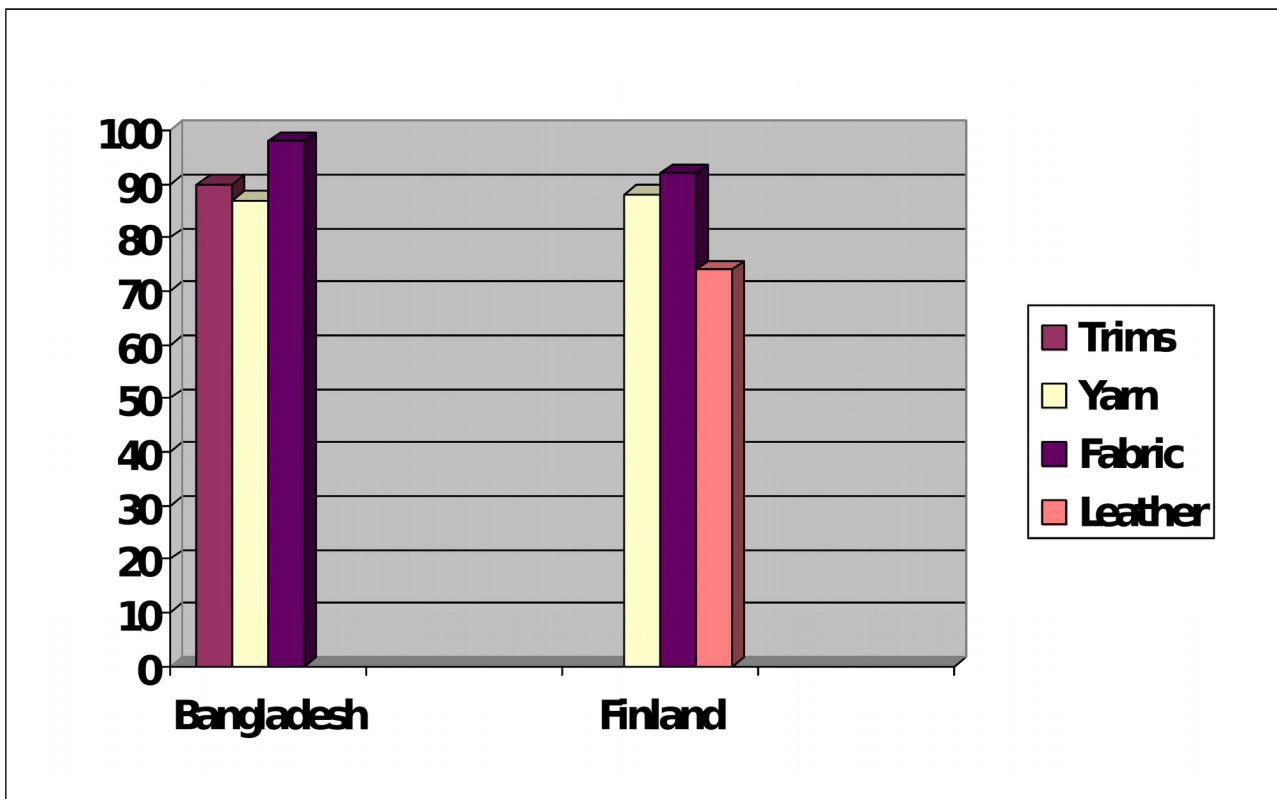


FIGURE 8. Three most available raw materials for the denim industry

FIGURE 8 shows that the availability of raw material for the garment industry for the three most available raw materials higher in Bangladesh than in Finland. From the analysis of respondents' feedback, fabric and yarn are found in large quantities in both Finland and Bangladesh.

#### 4.2.5 Effects of Technological Adoption in Denim Sector

The feedback on the effects of technological adoption greatly differs between Bangladesh and Finland. The feedback is presented in tables 5 and 6.

TABLE 5. Bangladesh feedback on the effects of technological adoption in the denim sector

<b>Technology adoption %</b>	<b>Strongly agree</b>	<b>Strongly disagree</b>	<b>Somewhat agree</b>	<b>Somewhat disagree</b>
The adoption of technology in the industry has sped up the manufacturing and marketing processes	23	36	32	9
Many employees have lost their jobs due to the approval of the technology	22	60	13	5
Most consumers find it easier to shop online than physically going to a mall or clothing store	35	11	38	15
Becoming tech-savvy has increased productivity	56	8	29	11

From table 5, a majority of Bangladesh employers are of the view that technology adoption has not largely affected the denim sector. For instance, more than half of the employers reported having a strong disagreement on the item on many employees losing their jobs due to technological adoption. Also, more than half of Bangladesh employers in the denim industry (56%) strongly agree that becoming tech-savvy has increased productivity.

TABLE 6. Finland response to the effects of technological adoption in the denim sector

<b>Technology adoption</b>	<b>Strongly agree</b>	<b>Strongly disagree</b>	<b>Somewhat agree</b>	<b>Somewhat disagree</b>
The adoption of technology in the industry has sped up the manufacturing and marketing processes	68	5	21	6
Many employees have lost their jobs due to the approval of the technology	61	16	18	5
Most consumers find it easier to shop online than physically going to a mall or clothing store	38	19	31	12
Becoming tech-savvy has increased productivity	68	4	18	10

Table 6 shows that more than half of Finnish employers in the denim industries strongly believe that the adoption of technology in the industry has sped up the manufacturing and marketing processes, many employees have lost their jobs due to the approval of the technology and becoming tech-savvy has increased productivity. However, less than half of the employers strongly believe that most consumers find it easier to shop online than physically going to a mall or clothing store.

A comparative analysis was done, producing different results for Finland and Bangladesh. In Bangladesh, 23% of the population strongly agrees that the adoption of technology in the industry has sped up the manufacturing and marketing processes while 36% of the population strongly disagree. In Finland, 68% of the population strongly agree, while it is only 5% of the population that strongly disagree on the subject.

In Bangladesh, more than half of the population (60%) strongly disagree that many employees have lost their jobs due to the approval of the technology. In Finland, the situation is different, with only 16% of the population strongly disagreeing, while 61% of the population strongly agreeing that many employees have lost their jobs due to the approval of the technology.

The item on shopping online or physically going to a shopping mall also received different responses. However, in both Bangladesh and Finland, less than half of the employers in the denim business are of the view that most consumers find it easier to shop online than physically going to a mall or clothing store. Consequently, in both Bangladesh (38%) and Finland (31%), less than half of the employers in the denim sector somewhat agree that most consumers find it easier to shop online than physically going to a mall or clothing store.

## **5 RECOMMENDATIONS AND SUMMARY OF RESEARCH FINDINGS**

For this particular chapter the findings of the research will not only be summarized but also discussed for a better understanding of the situation presented. A few recommendations about how Bangladesh and Finland can improve on the denim business and market will also be provided after this chapter. Summary of the research and the recommendations provided in this chapter are based on the research feedback as was conducted, analyzed and presented in tables and graphs by the researcher.

### **5.1 Recommendations**

The research recommends that the local government in Bangladesh should consider restructuring the infrastructure to avoid huge traffic and ease the transportation of raw materials to and from the denim manufacturing organizations.

The research also recommends that the government of Bangladesh and various stakeholders engaged in the garment sector, especially the denim sector encourages men to take roles in the denim sector. This will enhance the gender balance that is currently lacking. Finland should also encourage more women to join the denim production workforce.

It is also recommendable that there is increased productivity, particularly in Finland for denim products. This can be achieved through government investment in research and training for increased productivity.

It is also recommendable that the government of Bangladesh and Finland should pass legislation that directs employers to ensure that all persons employed are insured. This will not only protect employees in emergencies and serve as a mitigating factor in the face of losses but may also serve as a saving plan.

To establish a sustainable sector, there must be a reliable infrastructure. It is recommendable that the government of Bangladesh should, therefore, play a significant role in creating better infrastructure via suitable investment in the roads, port facilities, and highways. This will ease the transportation of raw materials and finished denim products from the industries to the market.

Both government of Bangladesh, stakeholders in the denim sector and the general public should be enlightened on the advantages of using the right channels of acquisition of employment that involve formal applications, as the present levels of family referrals, are skyrocketing. Too many family referrals may lead to chaos, especially when one section of the population feels secluded.

Stakeholders in the garment sector, especially in the denim sector in Bangladesh should improve working conditions in the stalls and factories as this would greatly reduce absenteeism at the workplace. In Finland, the majority of respondents are not satisfied with working in the denim sector. Besides, most of them complained about unfavorable policies. Therefore, it is recommendable that the government and various stakeholders in Finland act fast in improving garment production policies, a move that is likely to lead to a reduction in employee absenteeism in the country.

Another recommendation is for employees working in the denim sector, especially in the packing and sewing sectors in Bangladesh, and cutting and packing sectors in Finland to be provided regular training on employee-employer relationships. Consequently, employers in the denim sector need to take short courses on ethical relationships, and communication skills as this would translate to better handling of employees and reduce employer-employee clashes.

It is also recommendable that the government of Bangladesh promotes international business. This will enable her denim industry to thrive because currently, the country depends much on imported raw materials for the denim sector.

Bangladesh, on the other hand, should change its lending policies to improve on small and medium businesses access to financial resources. Besides, the government and various stakeholders in the denim sector should promote the acquisition and use of technology in denim factories and business joins. This will reduce production costs, increase output and reduce time-consuming mechanical methods presently used.

In Finland, it is recommendable that the government and other stakeholders in the denim sector enlighten employees on the importance of welcoming technology in the denim sector. This will mitigate the current belief among most employees that technology only leads to loss of employment as machines take over human labor.

Consequently, training institutions should be extensively set up and encouraged to enroll personnel for the garment industries in both Bangladesh and Finland, as the countries have not reached the status of China in the garment sector.

## **5.2 Summary and Discussion of Research Findings**

The garment industry is generally categorized into fashion products and the manufacturing of garments. It is concerned with the attainment of optimal outcomes regarding the manufacture, distribution, supplies, and preparation of fashion products. Notably, technological advancements in both Bangladesh and Finland has enabled the denim industry to implement novel techniques and procedures, in addition to increasing productivity while making use of new textiles.

The research found that both Bangladesh and Finland manufacture denim products on a large scale. This particular product has played an essential role in the nation's economic development over the past few years. For both countries, the majority of purchasers of denim products constitute women and children. Several challenges exist for the denim garment industry, but the industry has managed to overcome them and maintain a competitive edge, particularly for the case with Bangladesh.

Additionally, the research also found out that employment in the industry is greatly influenced by family referrals, which the researcher believes may lead to chaos if the trend persists. It is, therefore, the role of the government and various stakeholders to make sure that the trend is eliminated, and that the regular method of job application is followed.

Besides, education is key to the success of any endeavor. Therefore, the thesis believes that if employers and employees are trained, problems such as absenteeism and bad relationship at the workplace may be minimized.

Bangladesh is fast becoming one of the fastest-growing sites for denim garment manufacturing and export around the globe, with many small and large clothing units. Furthermore, the nation is the world's most compact set of clothing manufacturing with a majority of the units centered on or in the urban Dhaka and some around Chittagong. Presently, over 400 textile and garment producers in Bangladesh are exporting an estimated 180 million pieces of denim jeans to the world market annually. Robust Bangladesh's denim sector is generally driven by its high production capability and low manufacturing expense.

Compared to Bangladesh, Finland imports most of its denim product because the nation's production lines have been closed following superior manufacturing expenses. Whatever little is manufactured happens to be of superior quality. To compete against athleisure, denim jeans producers in Finland are taking up and discovering consumer needs. The influence of athleisure on denim has brought about fabric discovery and a shift towards a new sustainable manufacturing process. -Increased consumer demand for comfort has prompted denim brands to explore fabric technology.

## 6 CONCLUSIONS

The first objective of this thesis was to determine the status of the denim business in Bangladesh and Finland. The second objective was to discuss the challenges and opportunities in the denim business in Finland and Bangladesh. The third objective was to determine the demographics of those employed in the garment manufacturing factories while the fourth objective was to establish the relationship between technological advances and denim business success.

The researcher made use of quantitative data in trying to answer the research objectives. Therefore, primary data was collected. Data collection was by use of Questionnaires. The researcher made use of the services of facilitators who supplied questionnaires to samples of employees and employers in the denim sector. Feedback from the field study was analyzed by the researcher and presented in tables and graphs. It is from the analyzed data that the researcher was able to draw recommendations.

The first objective of the research was achieved through both secondary data and analyzed primary data from questionnaires. About the status of denim business in the two countries, some of the conclusions made were that in Asia, Bangladesh is the second-highest exporter of denim products after China. Additionally, in both countries, women take a higher share in the denim employment sector. Consequently, the researcher found out that employment in the sector in both countries is usually through family and friend referrals. Besides, unlike in Bangladesh, the government in Finland tends to have poor policies for employees, particularly in the denim sector.

The second objective, which was to touch on the challenges and opportunities in the denim business in Finland and Bangladesh was achieved through the use of secondary data. Secondary data used in the thesis includes research journals, books, articles, and magazines from which the researcher extracted information. Some of the challenges realized by the research include poor infrastructure and issues with branding and marketing for the case of Bangladesh. In Finland, the greatest challenge lies in the country having to import the raw materials used in the garment industry.

The third objective, which was to determine the demographics of those employed in the garment manufacturing factories was achieved through the use of primary data. Analysis of collected data revealed that in both countries, women made the majority of employees in the denim sector. The

research also concluded that most employees in the denim sector have only attained secondary education.

The fourth objective was to establish the relationship between technological advances and denim business success. In Bangladesh, it was concluded that technology does not have much influence on the success of the denim sector. However, in Finland, the research concluded that technological adoption in the denim sector has led to the notion that technology leads to unemployment; a notion that is popular among employees in the denim sector.

The researcher faced a few challenges, such as having difficulty in collecting data, especially from Finnish respondents. However, the use of facilitators helped mitigate the challenge. Another challenge faced by the research was needed to extend the time for researching for a week, which the researcher did as requested by the facilitators in the field. Therefore, despite the challenges, the research objectives were achieved.

Conclusively, the researcher did not cover all aspects of comparing the denim industry in Bangladesh and Finland. For instance, the research was not able to go to specifics on the technologies applied in Bangladesh and Finland, and how they affect the denim sector. Therefore, the researcher calls for more researchers to conduct researches to shade more light on ways of improving this very important, but unique sector, by comparing and applying selective learning from the two different countries.

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Work environment			
Wage policies			
Transportation			
Stress			

8. Do you feel your job is secure?

A) Yes

B) No

C) Not sure.

Thank you for taking part in filling the questionnaire.



	Very bad	Bad	Moderate	Very good	Excellent
Access to financial institutions					
Government Investment in giving incentives and promotions					
Availability of technology					
Speed-to-market					

5. Tick on the three most available raw materials for the denim industry

%	Availability
Labels	
Buttons	
Sewing threads	
Fabric	
Hangtag	
Trims	
Yarn	

6. Choose the most appropriate response for the effect of technological adoption in the denim sector.

Technology adoption	Strongly agree	Strongly disagree	Somewhat agree	Somewhat disagree
The adoption of technology in the industry has sped up the manufacturing and marketing processes				
Many employees have lost their jobs due to the approval of the technology				
Most consumers find it easier to shop online than physically going to a mall or clothing store				
Becoming tech-savvy has increased productivity				

Thank you for taking part in filling the questionnaire.