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Sonargaon University (SU)
সোনারগাঁও ইউনিভার্সিটি (এসইউ)

Faculty of Engineering
Department of Textile Engineering

Industrial Attachment
On

JOY AUTO GARMENTS

Plot # B/274/1, Enayetnagar
Purbopara, Godnail, Siddirganj
Narayanganj-1430, Bangladesh.

Course Title: Industrial Attachment
Course Code: TEX-442

Submitted By:

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Sonargaon University (SU)
Department of Textile Engineering

Academic Supervised:

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Coordinator & Lecturer
Department of Textile engineering
Sonargaon University (SU).
146 Mohakhali, Wireless Gate. Dhaka.

This report we have presented in partial fulfillment of the requirement for the Degree of Bachelor of Science in Textile Engineering.

Advance in Apparel Manufacturing Technology
Duration: From 1st November 2021 to 1st January 2022

DECLARATION

I hereby declare that, this Industrial Attachment on **Joy Auto Garments LTD.** of Bangladesh is done by me under the supervision of **Kamrul Hassan Bhuiyan, Coordinator & Lecturer,** Department of Textile Engineering, **Sonargaon University (SU),** Dhaka. I also declare that, this Industrial Attachment report has not been submitted anywhere for award, degree or diploma. It is prepared basing upon the date gathered by me during the period of Industrial Training.



Habibur Rahman

TEX-1801013017



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JOY AUTO GARMENTS LTD.
100% Export Oriented Readymade Garments Industry

Ref:.....

Date:.....

Ref: JAGL/INCERT/2022/01

Date: February 1, 2022

To Whom It May Concern

This is to certify that, Habibur Rahman Sifat, (ID: TEX-1801013017) Students of B.S.C in Textile Engineering (Major in Apparel Manufacturing) Sonargaon University, Dhaka, Bangladesh has successfully completed 90 days (From 1st Nov'21 to 1st Jan'22) internship program with us he was found punctual, hardworking & inquisitive.

We wish his every success in life.

Regards



Md. Saiful Islam

Head of HR & Compliance

Joy Auto Garments Ltd.



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LETTER OF APPROVAL

This is to certify that **MD. Habibur Rahman TEX1801013017**, BSC Engineering Textile program, 13A Batch have successfully completed their Industrial Internship on Apparel Manufacturing Technology under my supervision. I do hereby approve their report. I also recommend accepting their report for partial fulfillment of Bachelor of Science in Textile Engineering (BSCTE) Degree.

.....

Kamrul Hassan Bhuiyan
Coordinator & Lecturer
Department of Textile Engineering
Sonargaon University (SU), Dhaka

ACKNOWLEDGEMENTS

All pleasure goes to the Almighty Allah who has given me the ability and strength to complete this project.

I am grateful to” **Kamrul Hassan Bhuiyan**” Coordinator & Lecturer of Sonargaon University(SU), Dhaka. Textile Engineering my Academic Supervisor. As well as to “**Md. Humayun**” G.M of my factory of The **Joy Auto Garments Ltd.**

Being working with them I have not only earned valuable knowledge but was also inspired by their innovativeness which helped to enrich my experience to a greater extent. Their ideas and way of working was truly remarkable. I believe this report could not be finished if they did not help me continuously.

I would like to thanks the Chairman, General Manager, Production Manager, Sample Manager, Finishing Manager, Dyeing Manager, Maintenance Manager, Quality control Manager, Factory Manager & Costing Sr. Manager of Joy Auto Garments Ltd. Who has given us scope for doing industrial attachment in the factory as well as for giving scope to work in their respective section. We also would like to give special thanks to **Senior Merchandiser “Mohammad Saroar”** and **Merchandiser “Md. Eliyas Ali”** for their proper management & guideline regarding my industrial training.

I am also very much grateful to Joy Auto Garments Ltd. Authority/Management for giving me opportunity to do my internship work in their factory. Last but not the least, thanks go to all the workers, supervisors, Line Chief and Floor in charge who have assisted, helped and inspired me to complete this task at various stages.

ABSTRACT

For any technical education, practical experience is almost equal important in association with the theoretical knowledge. By means of practical knowledge it's not possible to apply the theoretical knowledge in the practical field.

Industrial attachment is the first step to professional life of student, especially of technical side. It's an indispensable part of study a practically running processing technology of an industrial unit for a student. University education provides us vast theoretical knowledge as well as more practical attachment, in despite of all these industrial attachment helps us to be familiar with technical support of modern machinery and skills about various processing stages.

This internship provides me sufficient practical knowledge about production management, efficiency, industrial management, Dyeing, Finishing, Costing, purchasing, inventory control, utility and maintenance of machineries and their operation techniques etc. which cannot be achieved successfully by means of theoretical knowledge only.

We were able to study on their different sections and their activities practically. Due to some limitation of the factory, we have found store section, finishing section and maintenance section, costing section dyeing section. Here we have also found the sample section but this section isn't fully operational as here only the Development sample, size set and production samples are produced.

During my internship I got the opportunity to study on some orders, from order receive to the delivery of the order. With the help of my supervisor, I have acquired the knowledge of handling an order, the production procedure and the inspection procedure to maintain the quality of these orders. We have also learnt about the office management of this factory.

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CHAPTER-01

Background of Industrial Attachment

1.0: Objective:

A student's academic curriculum must include an industrial attachment or internship. It usually lasts around three months. A student should be affiliated with a firm or organization that provides services relating to their field of study.

"It is an organized, credit-bearing work experience in which the student uses and gains knowledge and skills in a professional work situation." It entails putting taught abilities to use in a company that is connected to the students' major. An Industrial Attachment should push students to think about the ideals of the business they're working with and to evaluate their own education in relation to the experience."

For many students, schooling may be rather theoretical, and an internship is their first chance to apply what they've learned in the classroom to real-world situations. Working on real projects for a real business will not only help you build the skills you need to work in your profession; it will also offer you the interpersonal skills you need to work well with people — and confidence in your own abilities.

Objective:

The following is a summary of some of the goals that the industrial attachment might help students and organizations achieve:

- Increase the student's knowledge of public services
- Give students the option to work in the field of their choice
- Give students in-service orientation to a career area they may want to pursue
- Enhance student's understanding of organizational and group processes
- To expose students to the behavior of organizations both in the internal and external environment and encourage them to be productive while developing future worker
- To build the strength, teamwork spirit and self-confidence in student's life.
- To enhance the ability to improve student's creativity skills and sharing ideas.

- To build a good communication skill with group of workers and learn to learn proper behavior of corporate life in industrial sector.
- The student will be able instilled with good moral values such as responsibility , commitment and trustworthy during their training.

1.1: Methodology:

In order to achieve the objectives of my filed attachment, I embarked on the following methods of learning.

Guidance: Our supervisor has guided us in order to complete the attachment following the standard procedure. How we choose our topics, how to arrange them, organize them, even what will be our final approach about the attachment. He check it thoroughly and guided us if there is somethings missing or we should add somethings to make it stand out. The method he teaches us also help me to acquire knowledge from different other field.

Observation: This method was implored during the first week on attachment in order to see how activities were run in the office and factory. What are the sequence of getting order to complete shipment.

Data Gathering: After preparing the structure for an in-depth interview that will require supporting information, data will be gathered. Two or three high-ranking executives from each division and the Loon department will be interviewed.

Data Processing: After conducting the research it will be justify the findings and will be mitten in the form of a report.

Data Analysis: Analysis will be performed from the collected data and findings and recommendation will make from the results.

Organize Data: Organize collective and analysis data in a standard manner. Establish consistent and clear naming practices. Keep file titles short. Avoid symbols.

1.2: Limitation:

- Above few time for industrial attachment is not enough time to property complete industrial attachment. If I get more time I will know lot and complete it more effectively.
- The washing section is not part of the Joy Auto Garments Ltd. This is one of the major limitation.
- Some operation are controlled of garments section by corporate office. Like Buyer coordination section, with CAD Marker & Pattern section & Merchandising.
- Not all operators can provide complete or accurate information because he works beyond the limits.
- It is not possible to reporting full information for some limitation. So, I try our best to summarize all the information.



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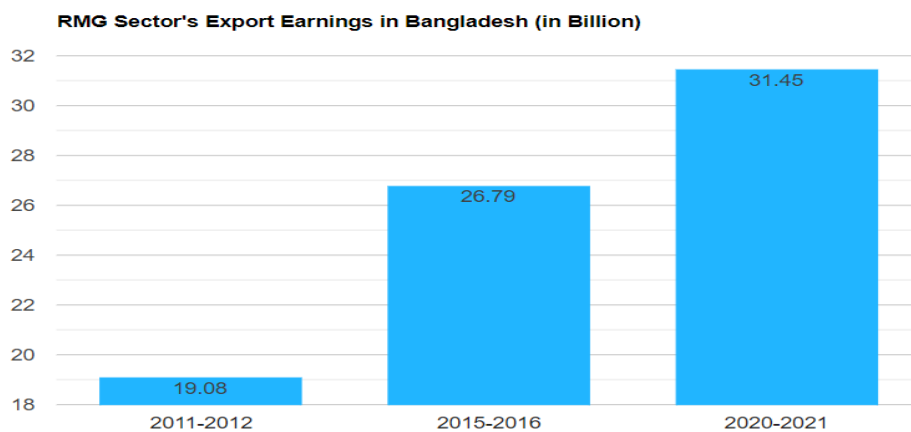
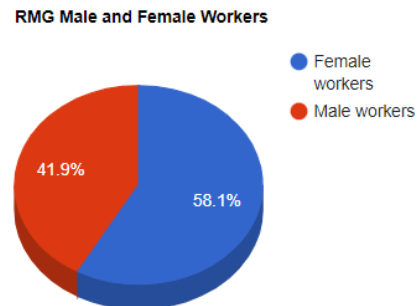
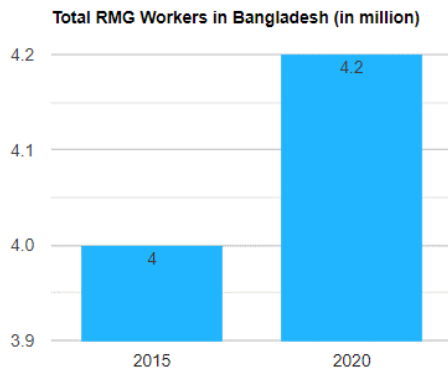
CHAPTER-02

Progress of RMG Sector in Bangladesh

1.3: Details Description of Progress:

Bangladesh's Ready-made Garment (RMG) sector, which began four decades ago, is now the country's economic engine. This industry accounts for over 80% of Bangladesh's total export revenues. Bangladesh gained 31.45 billion dollars from RMG exports in fiscal year 2020-21.

This industry not only contributes to foreign money generation, but it also employs millions of people in the country. In 2015, Bangladesh had over 4 million RMG workers; by 2020, that number will have risen to over 4.2 million. Male employees account for almost 1.8 million, while female workers account for 2.5 million.



The Reasons for the Increase

Developed countries began outsourcing from underdeveloped countries in the 1970s. As a result, prominent retailers in the EU and the United States continue to place orders with Bangladeshi businesses who fulfill specific export requirements.

Low-cost labor

Because Bangladesh is a developing nation, labor costs in the manufacturing and industrial sectors are cheaper. Bangladesh, in particular, has a significant workforce of unskilled people. Bangladeshi clothes may be purchased at a reasonable price due to reduced production expenses. As a result, Bangladesh has built a competitive market with countries such as India, Vietnam, and China, despite having a large garment production capacity. One of the main reasons why global shops choose to purchase goods from Bangladesh is because of this.

Low-cost investment

International purchasers aided the RMG business in a number of ways, including providing technological and marketing support. For example, they help Bangladeshi exporters manage their working capital concerns by providing back-to-back LC (letter of credit) services. This allows exporters to set up factories in the nation with a modest initial expenditure. Bangladeshi entrepreneurs, on the other hand, are intrigued since overseas purchasers are in charge of marketing, and garments are a low-investment, low-tech business.

Back-to-back LC cannot be more than 80% of mother LC, according to the amended Import Act of 1993. This indicates that the foreign currency needed to buy Intermediate RMG Manufacturing Materials in order to export goods cannot exceed 70% of export revenues. Net foreign exchange earnings account for 30% of total export volume as a result of this.

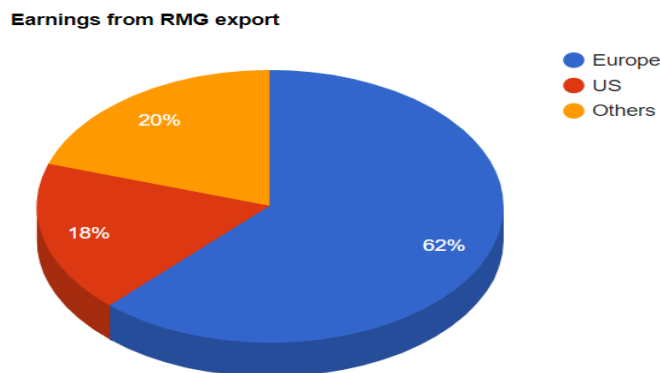
Initiatives by the government

In the 1980s, the Bangladeshi government created an import strategy for the development of the RMG sector, offering bonded storage facilities instead of a duty drawback system for 100% export-oriented garment companies.

The purpose of the duty drawback system was to reimburse duty fees and taxes paid on imported items that were later re-exported as unused or completed goods. 100% export-oriented garment manufacturers, on the other hand, may readily import key fabrics and accessories utilizing the bonded storage facility system in a duty-free manner. In addition, the RMG industry's competitiveness has been boosted by a reduction in manufacturing delays and a significant reduction in bureaucratic complexity.

Exporting to a Wide Range of Countries

Diversification of export destinations has been one of the reasons for the RMG sector's success in Bangladesh during the previous decade. However, European nations account for 62 percent of Bangladesh's RMG exports, while the United States accounts for 18 percent. As a result, Bangladesh's reliance on the American market is reducing, while non-traditional market exports are increasing. It is conceivable to preserve Bangladesh's RMG sector growth if the country's garment items can continue to export to these new markets.





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CHAPTER-03

Information About the Company

1.4: Company Overview:

JOY AUTO GARMENTS LIMITED (JAGL) is a 100% Export oriented Readymade Garments Industry (Woven Bottom Garments) situated in Enayetnagar Purbopara, Godnail, Siddirganj, Narayanganj, Bangladesh. It is a sister concern of Knit Concern Group which is a pioneer knit composite textile & garments industry in Bangladesh established in 1990. The Company has full vertical set-up like- knitting, dyeing, yarn dyeing, embroidery, washing, pigment dye, cutting, sewing & finishing etc. The Company is situated in Narayanganj area. The yearly export turnover of the knit Garments is 3.5 Million pieces and its value is around 10.00 million U.S. Dollar. The Group has very exclusive printing industry in Narayanganj area with all upgraded machinery's for garments printing like- Pigment, Rubber, Foil, High-density, Discharge, Puff, Flock, Glitter, Sublimation, Photo Print, Sticker Print, Label Print, Hangtag Print etc. The Group also has an exclusive washing plant with Italian & china brand Machineries of TONELLO, TRIVENETA GRANDI IMPIANT, SHUTLICK & SU-STAR etc. Also have all over print & lingerie project.





1.5: Company Profile:

JOY AUTO GARMENTS LIMITED (JAGL) is newly set-up with all new and upgraded EUROPEAN/JAPAN/CHINA Brand Automatic Ma chineries of JUKI, KANSAI, NISHO, IMA, CUTEX, Keenigizer, VEIT, WINDA, YKK, LOCK, HASHIMA etc to satisfy buyer needs and maintaining all the compliance & safety issues according to current standard requirement for EU, USA & AUSTRALIAN market.

1.5.1: General Information:

Name of the Organization	: JOY AUTO GARMENTS LIMITED	
BGMEA Reg. No.	: 5968	BKMEA Reg. No.: 985
Year of Establishment	: 2014	
Legal Aspects of the Organization:	A Private Limited Company	
Factory Address	: Plot # 274/1, Enayetnagar, Purbopara, Godnail, Siddirganj Narayanganj-1430, Bangladesh.	
Factory Location	: 20 Km from Airport / 10Km from Hotel Sonargaon, Dhaka.	
Telephone	: (+88 0671) 7672412, 7672413	

Contact Email : sohel@kcpu-bd.com, sohel@joyauto-bd.com
Mobile : +88 01797101155
Advising Bank : Dutch Bangla Bank Limited, B.B. Road Branch, B.B. Road,
Narayangonj, Bangladesh.

1.5.2: Technical Information:

Floor Space for Joy Auto : 18,000 Square Feet each floor. Production Floor
90,000 Sft. Utility, Store, Go down, Others 43,870 Sft.
and Total 1,33,870 Sft.

Number of Floor : 7 Floors including Roof Top with Gov't approved and
Roof Top full open.

Nature of Product : Woven Bottoms (Denim/jeans, Twill, Canvas, Rib
stop, Poplin etc).

Product Type Woven : All type of long Pant, Cargo Pant, Shorts, Cargo
Shorts, Trousers, Overall, Skirts, Swim wear etc.

Total Manpower : 1600 Persons.

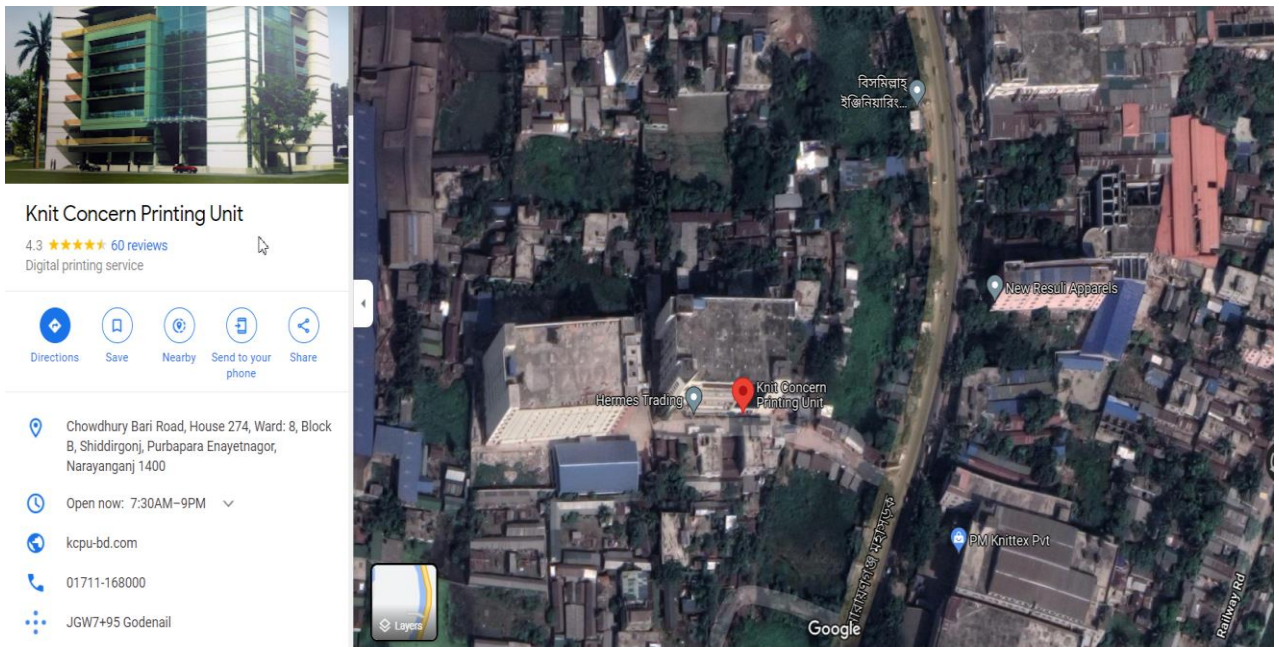
Total Sewing Line : Available 12 Lines & 09 lines under development.

Production Capacity : Current Capacity is 11500 Pcs per day and 300,000
Pcs per month.

Main Fabrics to use : 100% Cotton Denim/Jeans, Stretch Twill/Denim,
Twill, Canvas, Rib stop, 100% Polyester, Poplin,
Heavy/Light weight Fabric etc.

Our current Customer / Buyer : H&M, OKAIDI, CAMEU, JULES, OKAIBI etc for knit items and same is under development for woven items.

1.6: Site Direction Of Joy Auto Garments Ltd:



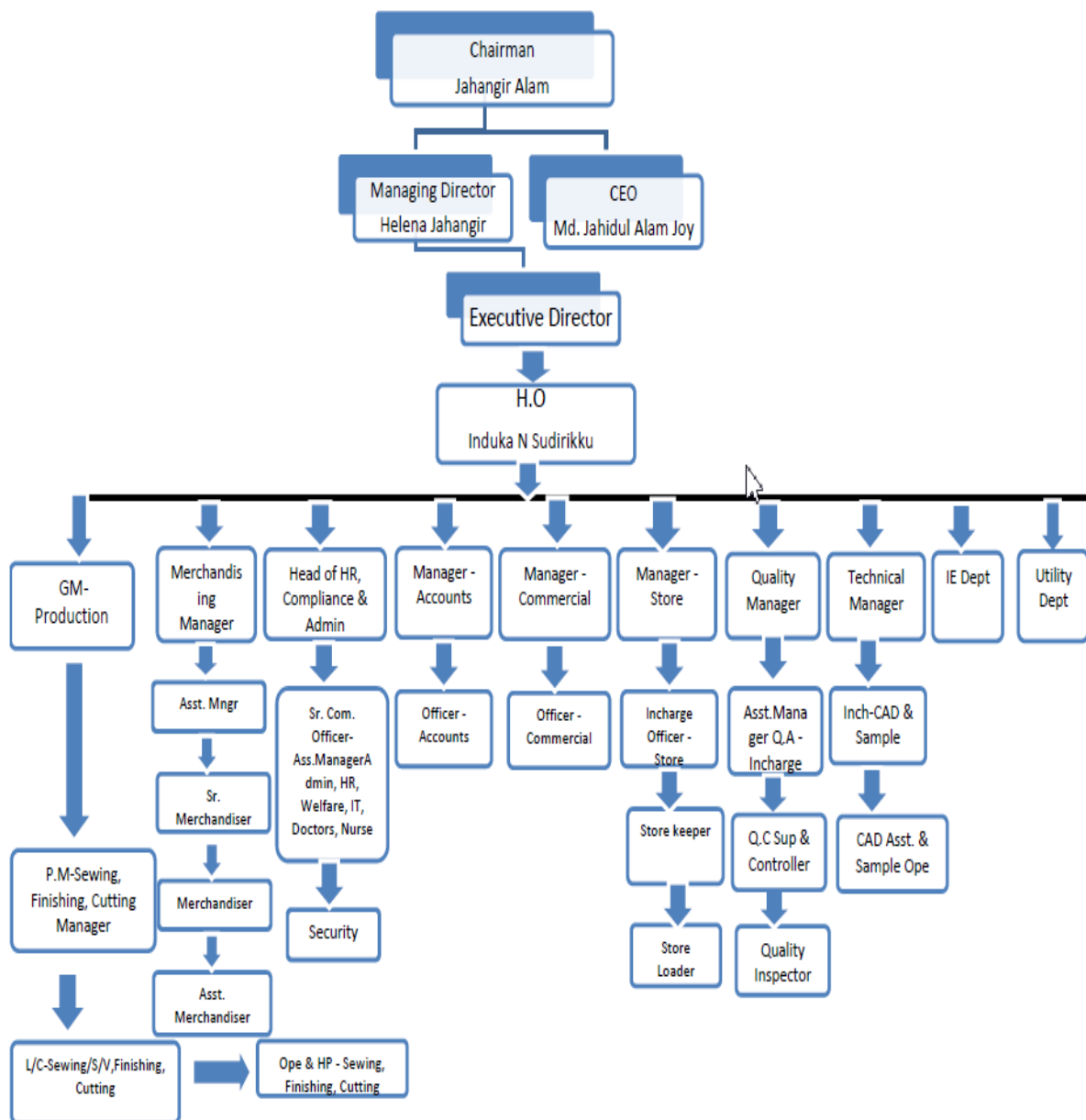
1.7: Clients:





1.8: Organogram Of Joy Auto Garments Ltd:

Organogram of Joy Auto Garments Limited



1.9: Nature of Business:

Joy Auto Garments Ltd. Is mainly export woven based garments. It could be woven shirt, denim pant, denim jacketed, denim kids item etc. A team of professional personnel are available to look after the production to meet buyer's ultimate delivery. We believe in quality and trust worthy relationship to grow up mutually.

1.9.1: Woven:

Woven textiles are created by interlacing two or more sets of yarn at right angles to one another. Weaving creates a lot of variation. Fabrics that are woven are more durable. They are easy to cut into various shapes and are useful for creating clothing designs. Raw edges, on the other hand, ravel or fray readily and must be covered. Fabrics with a higher fabric count (number of warp and weft yarns) hold their form better. Low-count textiles are flimsier and more likely to snag or stretch.

Depending on the ultimate application, woven textiles come in a variety of widths. Fabrics for garments typically have a width of 90 cm. Sheeting materials are often manufactured in widths of 160 cm/140 cms and 150 cm/180 cms. The woven division started production 1984, the company can handle various light weight fabric (Ex. 190T taffeta) to heavy weight fabric (Ex: 14.40 Oz Denim, wool, fleece etc.) State of the art machineries to make different woven products.

1.9.2: Woven Products:

- 5 Pocket Jeans pant
- 2 Pocket Jeans Jacket
- Cargo Pant
- Chino Pant
- Casual Shirt
- Functional Jacket



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2.0: Company Mission:

To provide customer best satisfaction and value for their money facilitating them with one-stop woven & knitwear sourcing services.

2.1: Company Vision:

The vision is to emerge as a premier manufacturer and exporter of woven & knitwear in world market.

2.2: Shifting:

There is one shift in the industry. So, the shifts are changed at every 8 hours. Shift Change/ for worker of Security:

General shift 08:30 am– 05:30 pm

2.3: Different Section of The Company:

- Merchandising
- Sample Section
- CAD Section
- Inventory Store
- Cutting Section
- Industrial Engineering
- Sewing Section
- Washing Department
- Quality Section
- Finishing Section
- Compliance



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CHAPTER-04

Merchandising

2.4: Merchandising:

The BRIDGE between the industry and the buyer is the merchandiser. He is responsible for all tasks, including purchasing the raw materials needed to complete the product, sewing the garment, finishing the garment, completing the documentation, and lastly shipping. He is the one who is in charge of creating the product. A garment export unit often contains several departments, including stores, cutting, production, packaging, and checking, among others, with the Merchandising department serving as a link between them all. A merchandiser's task is to coordinate with the entire office department as well as the customers. The merchandiser is in charge of establishing a positive relationship between the exporter and the buyer.

2.5: Definition of Merchandising:

Everything you do to advertise and sell your items after a potential consumer enters your business is referred to as merchandising. When we talk about merchandise, we're referring to items that are available for purchase, usually at a store.

Because the buying process frequently begins with the eyes, marketing usually entails displaying things in a visually appealing manner in order to drive purchases.



2.6: Types and Functions of Merchandising:

Two type of merchandising done in garment exports:

1. .Marketing merchandising.
2. .Product merchandising.

Marketing merchandising:

The main function of marketing merchandising is

1. Product Development
2. Costing
3. Ordering Marketing merchandising is to bring orders costly products development and it has direct contact with the buyer.

Product merchandising

Product merchandising is done in the unit. This includes all the responsibilities from sourcing to finishing i.e. first sample onwards, the products merchandising work start and ends till shipment.

2.7: Responsibility:

- A Merchandisers key responsibility is as follows:
- Product Development
- Market and Product Analysis
- Selling the concept
- Booking orders
- Confirming Deliveries
- Designing and Sampling
- Costing

- Raw Material
- Flow Monitoring
- Production Follow Ups
- Payments Follow
- Internal & external communication,
- Sampling
- Lab dips
- Accessories & Trims
- Preparing internal order sheets
- Preparing purchase orders
- Advising and assisting production,
- Advising quality department about the quality level
- Mediating production and quality departments
- Giving shipping instructions and the following shipping,
- Helping documentation department
- Taking responsibility for inspections and
- Following up the shipment.

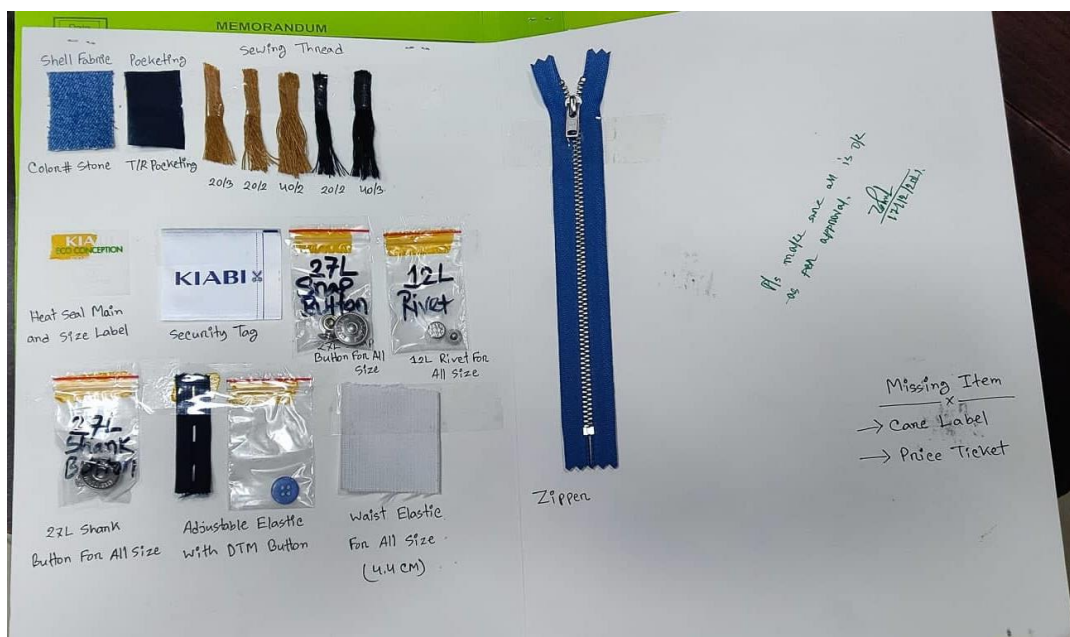




Fig: Trims Card



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CHAPTER-04

Sample Section

2.8: Sample:

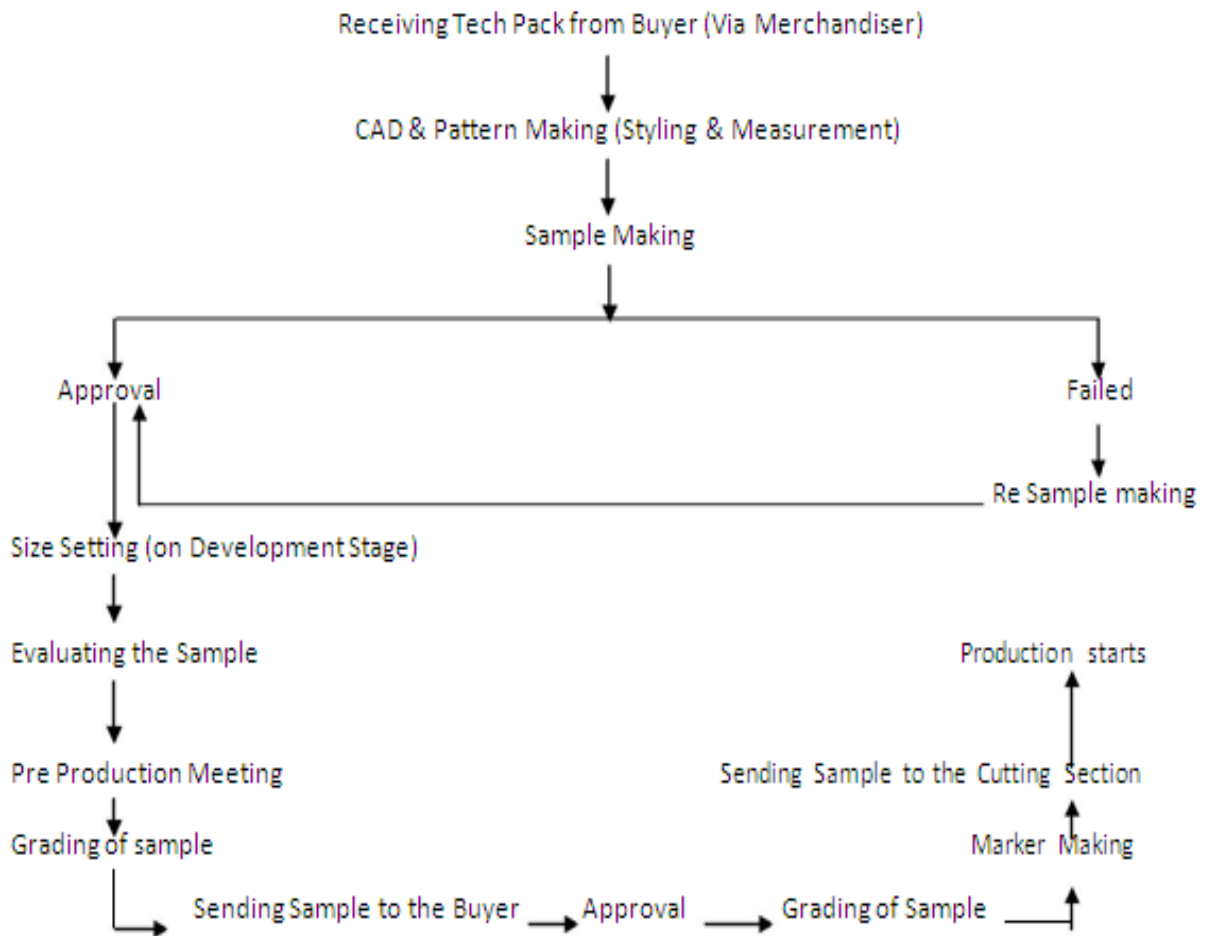
The importance of a sample garment in the readymade garment industry cannot be overstated. Any individual may comprehend the manufacturing, characteristics, and performance of the complete garment export order by looking at a sample. In the sample room, the sample is created according to the buyer's specifications. It may guarantee the pre- and post-condition of the clothing bought to both the buyer and the client. The sample is also employed to gather the necessary market ideas for that order's business marketing.



2.9: Organogram of Sample Section:



3.0: Process Flow Chart of Sample Section:



3.1: Types of Sample:

The different types of samples made by the apparel manufacturers are listed below:

- Proto sample /First sample
- Fit sample
- Size set sample
- Salesman sample

- Photo shoot sample
- Development sample
- PP sample
- TOP sample
- Counter sample
- Shipment sample
- Showroom sample
- GPT sample
- Gold seal sample /sealed sample
- Red tag sample
- Digital Garment Sample

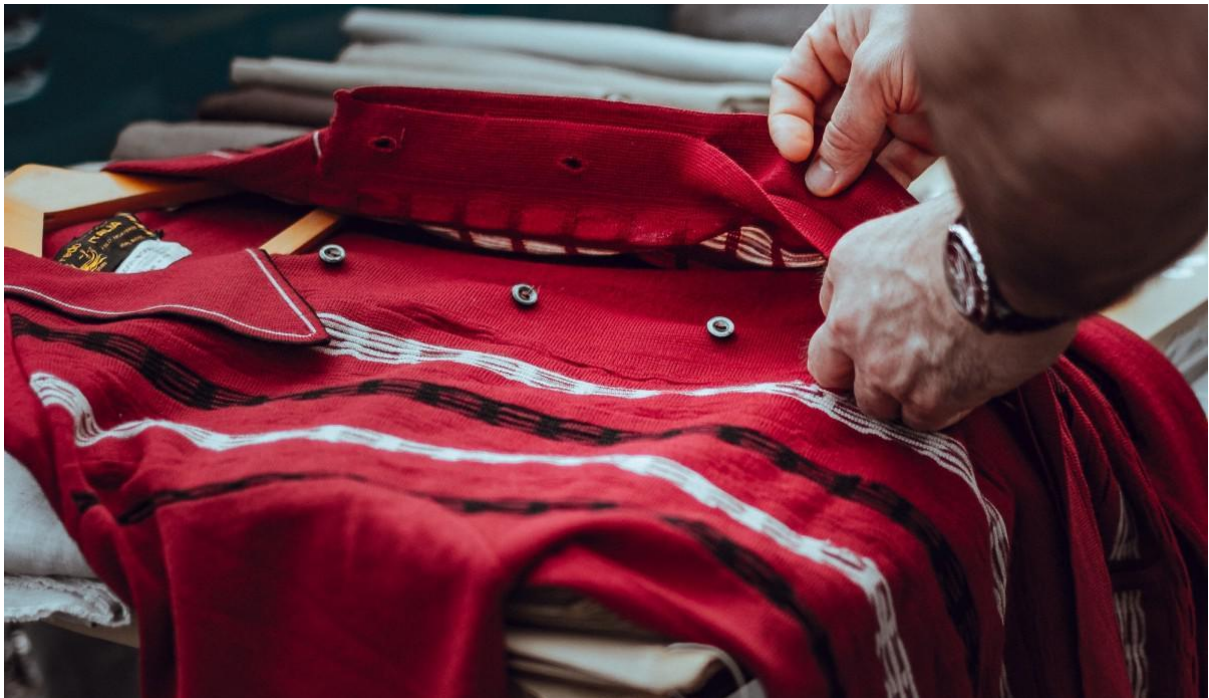


Fig: PP Sample



Fig: Top Sample



Fig: Shipment Sample



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Fig: Size Set Sample



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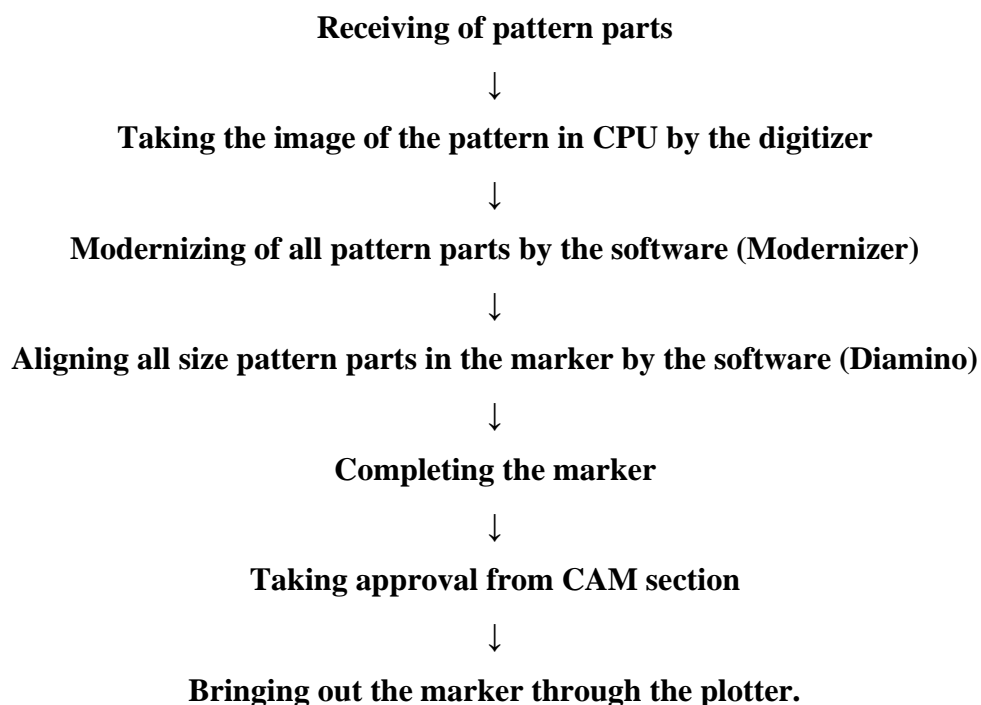
CHAPTER-06

CAD Section

3.2: CAD:

The abbreviation CAD stands for Computer-Aided Design. To various persons involved in design, production, and mechanical engineering, this phrase denotes different things. In the textile sector, particularly in the garment industry, CAD (Computer-Aided Design) has ushered in a revolution. CAD has simplified the time-consuming and inconvenient process of textile design. Textile designers and producers may now access creative and inventive designs with the touch of a mouse.

3.3: Working Sequence Of CAD



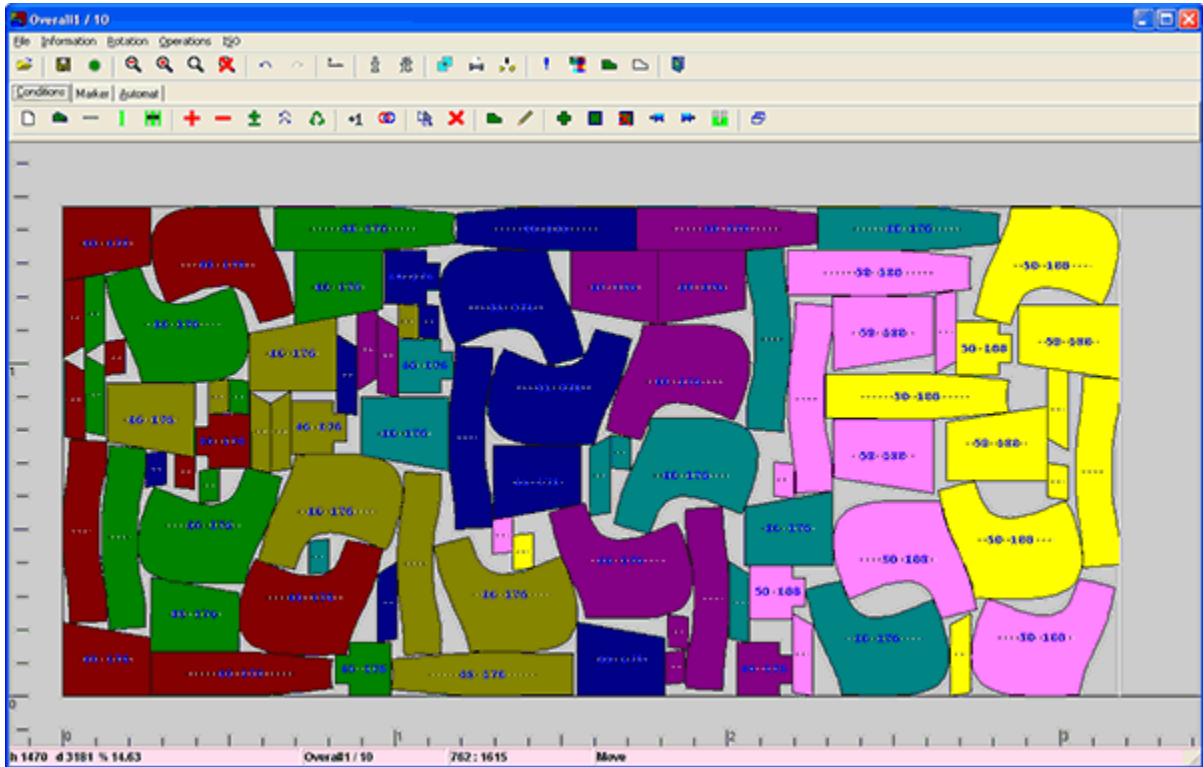


Fig: Marker Making



Fig: Pattern Making Machine



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CHAPTER-07

Inventory Store

3.4: Inventory:

Raw materials, component or finished components, and finished items stored in storage awaiting sale or in the manufacturing process are all examples of inventory. Inventory control refers to the exact computation and data of all raw materials, spare parts, and completed items in the store at any one moment. A store is a location where all types of raw materials, spare parts, and completed items are organized. Inventory control is crucial for the manufacturing to function smoothly.



3.5: Fabric Inventory:



3.6: Fabric Inspection Report:

Joy Auto Garments Ltd.
 Plot # 424/22, Block-05, Road # 01, SACZI, Shantaganj, Fashid, Narayanganj-1403, Phone: 7872145, 7872413

FABRIC QUALITY CONTROL INSPECTION REPORT (10% CHECK)

Buyer: CENTEX
 Fabric Description: 100% COTTON DENIM FABRIC
 Fabric Supplier: NO DENIM LIMITED
 Date of Inspection: 07-12-2021
 Purchase Order No.: PO = 0812-1
 Style No.: LACOS-098-S-21
 Lot No.: 2-87-607
 Fab Width: 65" Rqm: _____

Total Rolls Received: 20 TL YDS: 5998 Yds
 Total Rolls: (18+2) = 20 Rolls
 Total Rolls Inspection: 05 TL YDS / MTR: 19 Yds
 Total Penalty Points: 160 Points
 Points 100 Yds: 20.00 (Avg)
 Color: Light Blue
 Delivery Date: 07-06-2021

TOTAL POINTS: 36 (100) Points Per 100 Yards
 TOTAL LENGTH: 5998 Yards
 Note: Up to 28 points per 100 yard is acceptable defect rate.
4 POINTS INSPECTION SYSTEM

DEFECTS PENALTY
 0" - 8" = 1
 8" - 12" = 2
 12" - 18" = 3
 18" - 24" = 4

Sl. No.	Roll	Length	Width	Actual Length	Actual Width	Knitting / Weaving / Yarn Mixing				Sub / Knots / Thick Yarn				Dirty / Stain / Spot				Foreign Matter / other Defect				Hole (H Point)	Total Point	Per 100 Yds	Remarks
						1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
1	8319	160	65"	160	65"	1				1												24	11.76%		
2	6768	199	65"	199	65"	1				1												46	19.09%		
3	8821	70	65"	70	65"	1				1												18	11.43%		
4	8245	184	65"	184	65"	1				1												36	10.75%	JOINT	
5	6777	112	65"	112	65"	1				1												26	14.85%		
6																									
7																									
8																									
9																									
10																									

Comments: USE HAIR BOUND, KNOT, SLUB, HOLE, SPOT, MISSING YARN, STOP MARK, LINE MARK AND SCRE TO MIDDLE SHADING IN THIS FABRIC INSPECTION.

Checked By: [Signature] C.O.C / Inch: _____ Cutting / Inch: _____ Cutt. Mang: [Signature] FM: _____ AGM/GM: _____



3.7: Fabric Shrinkage Report:

Joy Auto Garments Ltd.
 Plot # 424-427, Block-II, Road # 01, BSCIC, Shaohongon, Fulubh, Narayanganj-1400.

Shrinkage Report

Description: 100% COTTON DENIM FABRIC
 Supplier: CHITTAGONG DENIM MILLS LTD.
 No. 770
 Standard: CRUMBLE
 Date: 01.10.21

# No	Yds	Colour	Before Wash		After Wash		Shrinkage %		Remarks
			Length	Width	Length	Width	Length	Width	
140	120	DENIM	50 cm	50 cm	47.5	50	-5%	0%	
145	120	BLEACH	"	"	48	50	-4%	0%	
147	120	"	"	"	47.5	49.5	-5%	-1%	
148	120	"	"	"	48	49.5	-4%	-1%	
149	120	"	"	"	48	49.5	-4%	-1%	

Avg: LENGTH WISE = $(-4\%) \rightarrow -4\% \text{ to } -5\%$
 Avg: WIDTH WISE = $(-1\%) \rightarrow -1\% \text{ to } 0\%$

#0 CRUMBLE

Q. INC CUT INC QM TEC.M MER

3.8: Accessories Inventory:



3.9: Accessories Inventory Items:

There are lot of accessories item that used in a woven garments which need to be inventory at a right time. Some of the items are following:

3.9.1: Label:



3.9.2: Sewing Thread:



3.9.3: Button:



3.9.4: Zipper:



3.9.5: Interlining:



3.9.6: Drawcord:



3.9.7: Hand tag:



3.9.8: Leather Patch:





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CHAPTER-08

Cutting Section

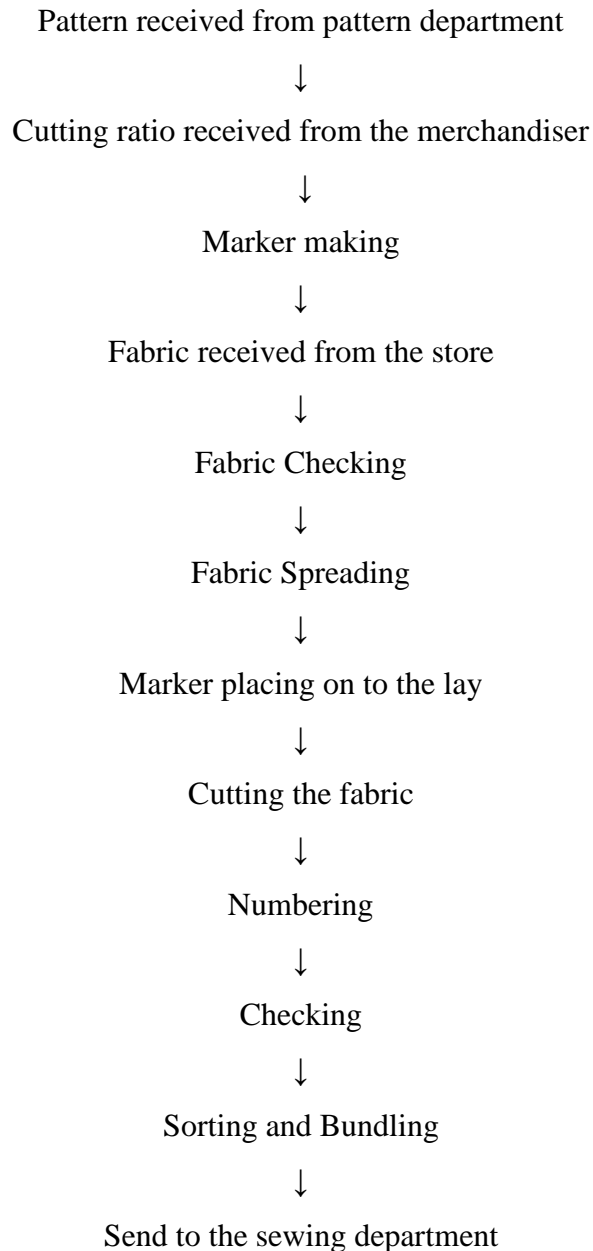
4.0: Cutting:

Fabric cutting is the process of cutting out pattern parts of garment components from a fabric lay according to the pattern's exact dimensions. It's not like ordinary cutting, where the particular dimensions aren't taken into mind.

The cutting process is the first step in the creation of clothing. Fabric is cut into components (forms or patterns of different garment pieces, such as front, back, sleeve, and collar shapes) during this operation. Multiple layers of textiles are put out on a table in mass manufacturing, and a huge number of garments are cut at once. The term "lay" refers to the fabric stack that has been set out.



4.1: Process Flow Chart of Cutting Section:



4.2: Machine Used in Cutting Section:

- Automatic spreading machine
- Automatic cutting machine
- Manual cutting with straight knife
- Round knife cutting machine
- Band knife cutting machine
- Die Cutting machine
- Computerized automatic cutting machine



Fig: Manual cutting with straight knife



Fig: Fusing Machine



Fig: Band knife cutting machine



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CHAPTER-09

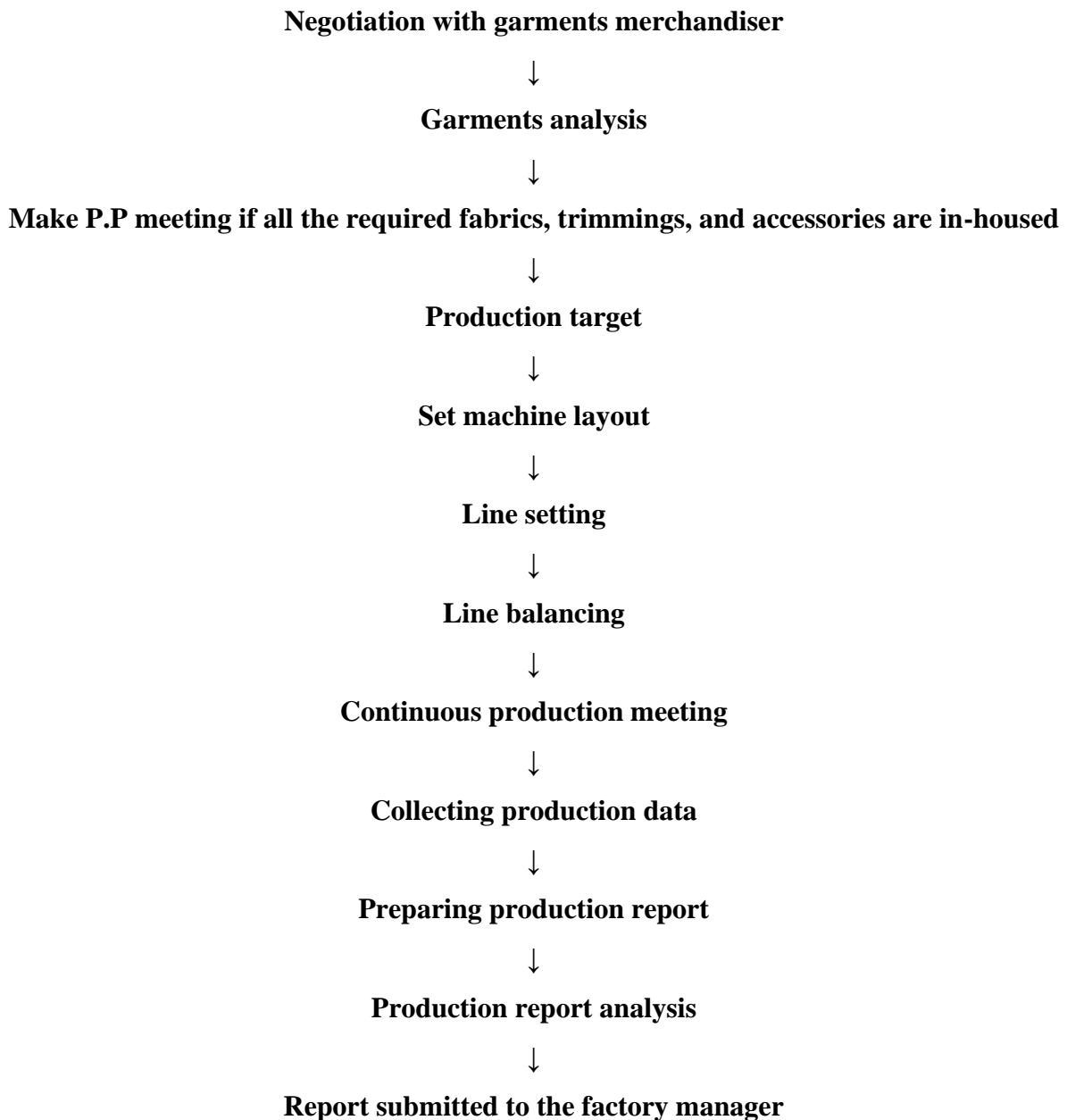
Industrial Engineering

4.3: Industrial Engineering:

In the garment and textile industries, industrial engineering is a crucial area. Its major goal was to develop strategies for enhancing operations and lowering production costs. It also trains programmers in order to cut expenses. In the garment business, IE encompasses the supply chain, process, operation, cost and value, quality, planning, and so on.



4.4: Process Flow Chart Of IE:



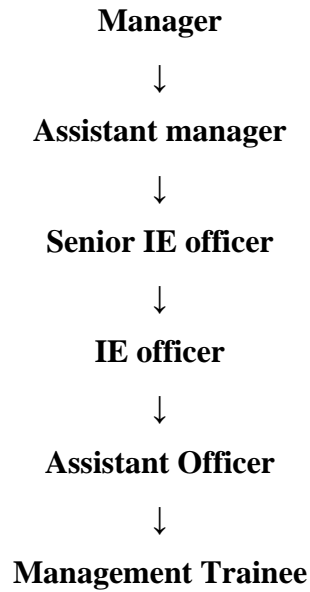
4.5: Importance:

- Prepare existing manpower and machine report for the best use of resources
- Accurate SMV calculation by time study
- List up operator's skill summary to do layout smoothly
- Train up production staffs regularly to improve efficiency.
- Improving productivity through a complete analysis of the process by process
- Helping to launch TQM (Total quality management) system in a factory
- Implement traffic light system on the floor and reduce sewing defect percentage
- Check fabric, accessories and thread consumption before insert into production line to erase hassle
- Before insert into production line, IE people should analysis developed samples to identify obstacles and make easier sewing process
- Provide actual material requirement before insert into production line so that supply chain management can procure shortage materials quickly
- Emphasize on process-wise operator skill development
- Time study, motion study for the betterment of production process
- 5S implementation, training, and auditing to reduce wastage
- Work on 7 QC tools to minimize defects
- Nonproductive time (Loss time) count properly and minimize
- Hourly production monitoring and achieve the line target
- Taking the capacity study of full-line and line balancing for clean up bottleneck area
- Methods development and analysis to increase product quality and quantity
- Should have a sound idea on quality methods to keep product quality




- **Manpower budget plannin**
- **Capacity study**
- **PDCA cycle**
- **Statistical analysis for continuous quality improvement**
- **Production planning and control to chase production targets**
- **Line cost calculation, floor capacity calculation**
- **Follow up KPI (key performance indicator) and report to seniors**
- **7 wastage reduce**
- **Production study**
- **CPM, CM calculation**
- **Inventory control in all section**
- **SPM, EPM, PCL calculation**
- **Reduce WIP (work in progress)**
- **Operator, line and floor efficiency calculation**
- **Manpower requisition and set up**
- **Eliminating excess manpower**
- **Prepare operation break down, operation bulletin or layout to get output quickly**
- **Follow up the low performing operators and deliver proper guideline to improve efficiency**
- **38) Implementation of lean manufacturing tools and six-sigma**
- **39) Select skill workers and provide incentives to operators and production staffs to get inspired**
- **40) Co-ordination with merchandisers, review upcoming samples to make easy sewing process**
- **41) Continuous research, analysis, and development to reduce costs. Do innovation to increase productivity**
- **42) Work simultaneously with the quality department as well as merchant team to increase productivity and product quality**

4.6: Organogram of IE:



4.7: Sewing Operator Skill Study:


Joy Auto Garments Ltd.
IE DEPARTMENT
Sewing Operator Skill Study
13320

NAME	UMAR FARUK	DATE	17-Nov-21
ID NUMBER	13320	JOINING	
FLOOR	3rd	EXPERIENCE	08 Years
LINE	4A	SERVICES	
APP. No.	01971625660	AVG EFF	72%

SL. NO	M/C TYPE	ITEM	NAME OF OPERATION	S.M.V	TGT	CAPACITY	EFF%
01	K/S	PANT	W/B JOIN TO BODY-(S-FOLDER)	0.55	109	80	73%
02	K/S	PANT	W/B JOIN TO BODY-(D-FOLDER)	0.60	100	65	65%
03	K/S	PANT	W/B T/S	0.42	143	110	77%
04							
05							
06							
07							



4.8: Operator's Capacity Study:

JOY AUTO GARMENTS LTD.
 Plot # 42/427, Road # 01, Block # 01, Shantiganj, Jhalakati, Dist. # Sonargaon

CAPACITY STUDY

NO	OPERATION	MC TYPE	OPERATOR NAME	OP ID NO	CYCLE TIME					TTL CYCLE TIME	AVG	AVG24	B/B*AVG	CAPACITY
					1	2	3	4	5					
FRONT PART														
1	S/FLY OL & FR. RISE OL WITH S/FLY JOIN	OL	HAMIDA	13016	25	24	25	26	24	124	24.8	0.41	0.44	136 Pcs
2	ZIPPER JOIN TO S/FLY	SN	SHAPLA	13035	35	36	32	34	35	172	34.4	0.57	0.61	98 Pcs
3	COIN PKT ROLLING	SN	HASINA	13155	19	20	19	21	20	99	19.8	0.33	0.35	170 Pcs
4	COIN PKT JOIN	DN	SUBI	13032	31	27	30	30	30	148	29.6	0.49	0.53	114 Pcs
5	SEAMFACING AND D FLY OVL	OL	MAJEUR	13083	30	32	31	32	32	157	31.4	0.52	0.56	107 Pcs
6	L STITCH WITH MARK	DN	SHARMIN	12997	29	31	30	29	29	146	29.6	0.49	0.53	114 Pcs
7	D FLY JOIN & TWO PART ATTACH	SN	FARIDA	11301	33	34	32	30	31	160	32	0.53	0.57	105 Pcs
8	SEAM JOIN TO PKTING	SN	SAHANAJ	13173	29	28	29	30	29	145	29	0.48	0.52	116 Pcs
9	FACING JOIN TO PKTING	SN	SHABANA	12999	17	18	18	17	16	84	16.8	0.28	0.30	200 Pcs
10	FRONT PKT JOIN	SN	SHILA	11530	30	30	30	31	29	150	30	0.50	0.54	112 Pcs
11	FRPKT MOUTH STAY STITCH	SN	AYSHA	13041	24	22	23	23	21	113	22.6	0.36	0.40	149 Pcs
12	CLOSE PKT BAG	OL	RTTU	12460	23	22	22	24	23	114	22.8	0.36	0.41	148 Pcs
13	IS PKT BAG	SN	LAIZU	10637	32	28	29	33	30	152	30.4	0.51	0.54	111 Pcs
14	IB TACK	SN	ANWARA	12570	17	18	17	16	18	86	17.2	0.29	0.31	196 Pcs
15	IB IS	DN	ANIS	12055	17	17	17	17	17	85	17	0.28	0.30	198 Pcs
BACK PART														
16	THAI PKT ROLLING	DN	SAMUNNAHAR	11345	16	17	15	16	16	80	16	0.27	0.29	210 Pcs
17	THAI COIN PKT ROLLING	DN	SAMUNNAHAR	11345	14	15	13	14	13	69	13.8	0.23	0.25	244 Pcs
18	THAI COIN PKT JOIN	SN	TAMANNA	12214	26	28	29	28	27	138	27.6	0.46	0.49	122 Pcs
19	THAI COIN PKT I/L	SN	MAHINUR	10874	17	15	18	19	18	87	17.4	0.29	0.31	193 Pcs
20	THAI INNER PKT JOIN	SN	SEPALI	12354	60	53	57	56	58	274	54.8	0.91	0.98	61 Pcs
21	DO	SN	HALIMA	11123	83	84	89	85	88	420	85.8	1.43	1.59	39 Pcs
22	THAI INNER PKT I/L	SN	FATIMA	13037	25	25	24	25	25	124	24.8	0.41	0.44	136 Pcs
23	THAI PKT JOIN	SN	RUNU	12882	89	89	90	89	88	445	89	1.48	1.59	38 Pcs
24	DO	SN	POLY	11048	68	62	64	63	64	321	64.2	1.07	1.29	52 Pcs
25	BACK PKT ROLLING	SN/S	MINA	12268	40	40	39	44	40	203	40.6	0.68	0.72	83 Pcs
26	BACK PKT OVL EDGE	OL	MITA	12699	22	20	24	22	23	111	22.2	0.37	0.40	152 Pcs
27	DOUBLE FLY OVL	OL	MITA	12699	10	9	10	10	10	49	9.8	0.16	0.17	343 Pcs
28	BACK PKT & THAI PKT PLACEMENT MARK	HS PK	ALEYA	21206	48	50	48	52	48	246	49.2	0.82	0.88	73 Pcs

30	DO	SN	AMBHA	12532	52	53	54	55	54	268	53.6	0.89	0.96	63 Pcs	
31	BACK PKT I/L	SN	AMBHA	12574	64	62	65	63	65	319	63.8	0.77	0.28	56 Pcs	
32	DO	SN	MONI	12645	45	44	45	46	45	225	45	0.75	0.80	75 Pcs	
ASSEMBLY															
34	SIDE SEAM JOIN (1 side)	OL	ANAMEL	10622	26	28	27	30	28	139	27.8	0.23	0.25	121 Pcs	
35	SIDE SEAM JOIN (1 side)	OL	MAHABUB	12981	38	40	39	37	39	193	38.6	0.32	0.34	87 Pcs	
36	SIDE SEAM SAFETY STITCH	SN	IRIN	12841	40	42	43	42	42	209	41.8	0.70	0.75	80 Pcs	
37	BRAND LBL JOIN TO SIDE SEAM	SN	MUKTA	11901	24	24	23	23	24	118	23.6	0.39	0.42	145 Pcs	
38	SIDE IS	HS	ELIAS	12488	44	45	45	44	45	223	44.6	0.74	0.80	75 Pcs	
39	LOOP MAKE-CUT & MATCHING	PK	RASEL	20973	24	25	24	26	25	124	24.8	0.41	0.44	136 Pcs	
40	LOOP JOIN WITH SHARING (-7)	SN	MIRAJ	12901	50	51	50	50	50	251	50.2	0.84	0.90	67 Pcs	
40	LBL TACK TO WAIST	SN	RASIDA	11880	25	24	22	24	23	118	23.6	0.39	0.42	143 Pcs	
41	WAIST BELT JOIN	KS	HASIB	12994	32	34	30	33	34	163	32.6	0.54	0.58	103 Pcs	
42	MOUTH CLOSE - (IN)	SN	JESMIN	12118	40	40	39	38	38	195	39	0.65	0.70	86 Pcs	
43	MOUTH CLOSE - (TOP)	SN	SAJEDA	13108	40	37	36	37	38	188	37.6	0.63	0.67	89 Pcs	
44	LOOP TACK	SN	AMBHA	12574	41	39	40	38	40	198	39.6	0.66	0.71	85 Pcs	
45	LOOP CLOSE	SN	FARDAUSI	11661	39	38	38	38	39	192	38.4	0.64	0.68	88 Pcs	
46	IN SEAM JOIN - (folder)	PSA	KALAM	13114	36	35	37	37	36	181	36.2	0.60	0.65	93 Pcs	
47	BOTTOM HEM	SN	NAZMA	12843	37	36	36	35	38	182	36.4	0.61	0.65	92 Pcs	
48	LOOP + BK PKT BTK	BT	YOUNIS	12114	53	52	57	55	56	273	54.6	0.91	0.97	62 Pcs	
49	BODY BTK	BT	RIPA	11735	40	44	43	45	42	214	42.8	0.71	0.76	79 Pcs	
											25.06	0.82	0.88	73 Pcs	
											26.82				
											0.55				
											110 Pcs				
MACHINES QTY SUMMARY															
NO	NAME OF MACHINE	QTY													
01	SN	29													
02	SNCS	1													
03	DN	5													
04	DNCS	0													
05	OL	7													
06	FS	1													
07	APW	8													
08	SDA	2													
09	KS	1													
10	BT	2													
11	EYE LET	0													
12	WROKE	0													
		TOTAL MC QTY	49 Pcs												
IRON & HELPER QTY SUMMARY															
NO	HELPER & IRON	QTY													
01	HELPER	1													
02	IRON	0													
		TOTAL HELPER & IRON QTY	1 Pcs												



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CHAPTER-10

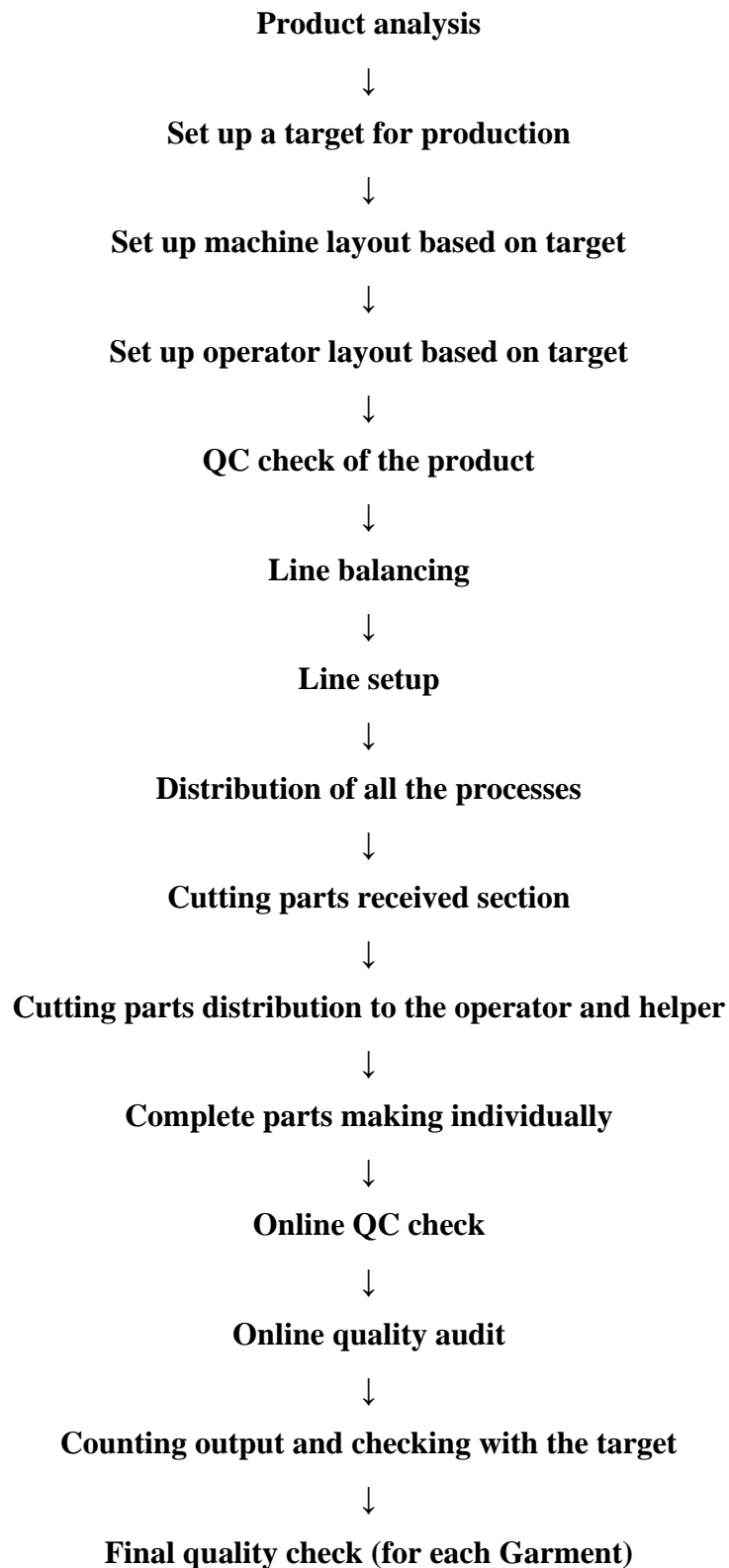
Sewing Section

4.9: Sewing:

Sewing is the process of attaching various components of the cut pieces together. Many operators labor in this environment, each doing a specific task. All of these factors influence which pieces of the garment may be stitched at that particular station. The most important department in the garment business is the sewing portion. Joy Auto Garments had started with 12 (Twelve) no's of sewing lines and arranging another 9 (nine) lines within very short time in the same building. We are using all upgraded machines and mostly are automatic thread teamer with LED light which brands are JUKI, KANSAI, NISHO etc. We have some JUKI Brand special machines for Pocket setter, Loop making & attaching machine, Pocket hemming machine, Welting machine & Bottom Hemming machine etc. Our sewing capacity is around 11500 pcs per day which will be increased pcs more.

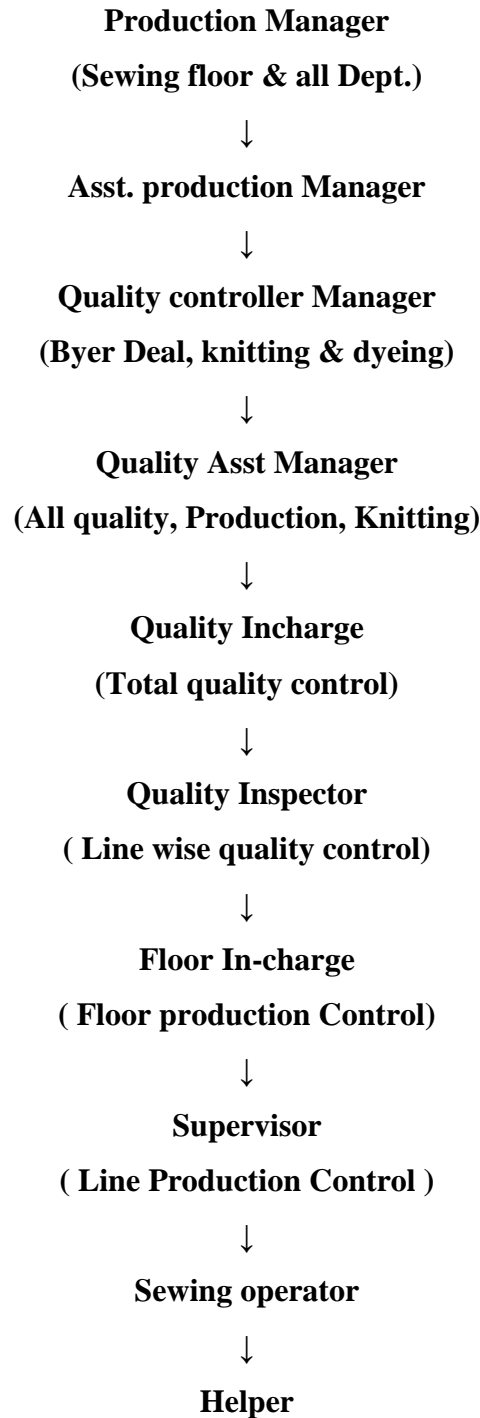


5.0: Process Flow Chart of Sewing Section:





5.1: Organogram of Sewing Section:





5.2: Floor Layout:



5.3: List of Sewing Machine:

SL #	PARTICULARS	BRAND	QUANTITY	UNIT
01	1 needle lockstitch with Auto trimmer sewing machine.	JUKI	160	Set
02	2 needle, needle feed, semi dry head, lockstitch sewing machine with Auto thread trimmer sewing machine.	JUKI	12	Set
03	2 needle, needle feed, semi- dry head, lock stitch organized split needle bar sewing machine with Auto thread trimmer sewing machine.	JUKI	10	Set
04	2 needle 5 threads, 3 looper Over lock /safety stitch machine.	JUKI	30	Set
05	3 Needle Feed-off-the-Arm, double Chain stitch machine.	JUKI	18	Set
06	2 Needle double chain stitch machine	JUKI	6	Set
07	High speed computer controlled Bartaking machine	JUKI	7	Set
08	High speed computer controlled Eyelet hole machine with an integrated needle, looper & GIM thread trimmer.	JUKI	2	Set
09	High speed computer controlled button sewing machine.	JUKI	2	Set
10	High speed computer controlled lock stitch button holing machine.	JUKI	2	Set
11	Semi -dry head, direct drive Computer controlled cycle machine with an input function for topstitching jeans pocket.	JUKI	2	Set
12	1 Needle, Cylinder bed, Needle feed, lock stitch machine with an automatic thread trimmer for trouser bottom hemming.	JUKI	12	Set
13	Computer control High speed Direct drive 1 Needle for semi-Automatic Jeans Pocket setter machine.	JUKI	4	Set
14	2 Needle, Automatic Belt-loop attaching machine.	JUKI	3	Set
15	Semi-dry head, Lock stitch, Automatic welting machine.	JUKI	2	Set
16	High speed, Automatic pocket Hemmer machine.	JUKI	1	Set
17	4 Needle High speed flat bed double chain stitch machine.	KANSAI	5	Set

5.3.1: Introduction of Plain Machine:



5.3.2: Introduction of Overlock Machine:





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CHAPTER-11

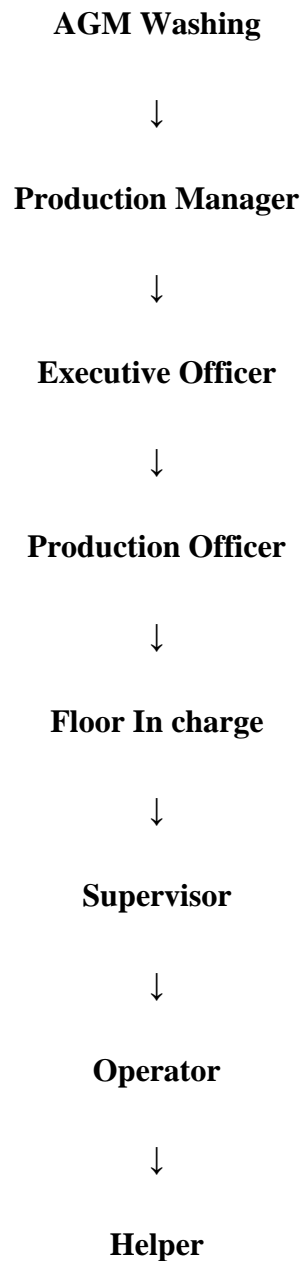
Washing

5.4: Washing:

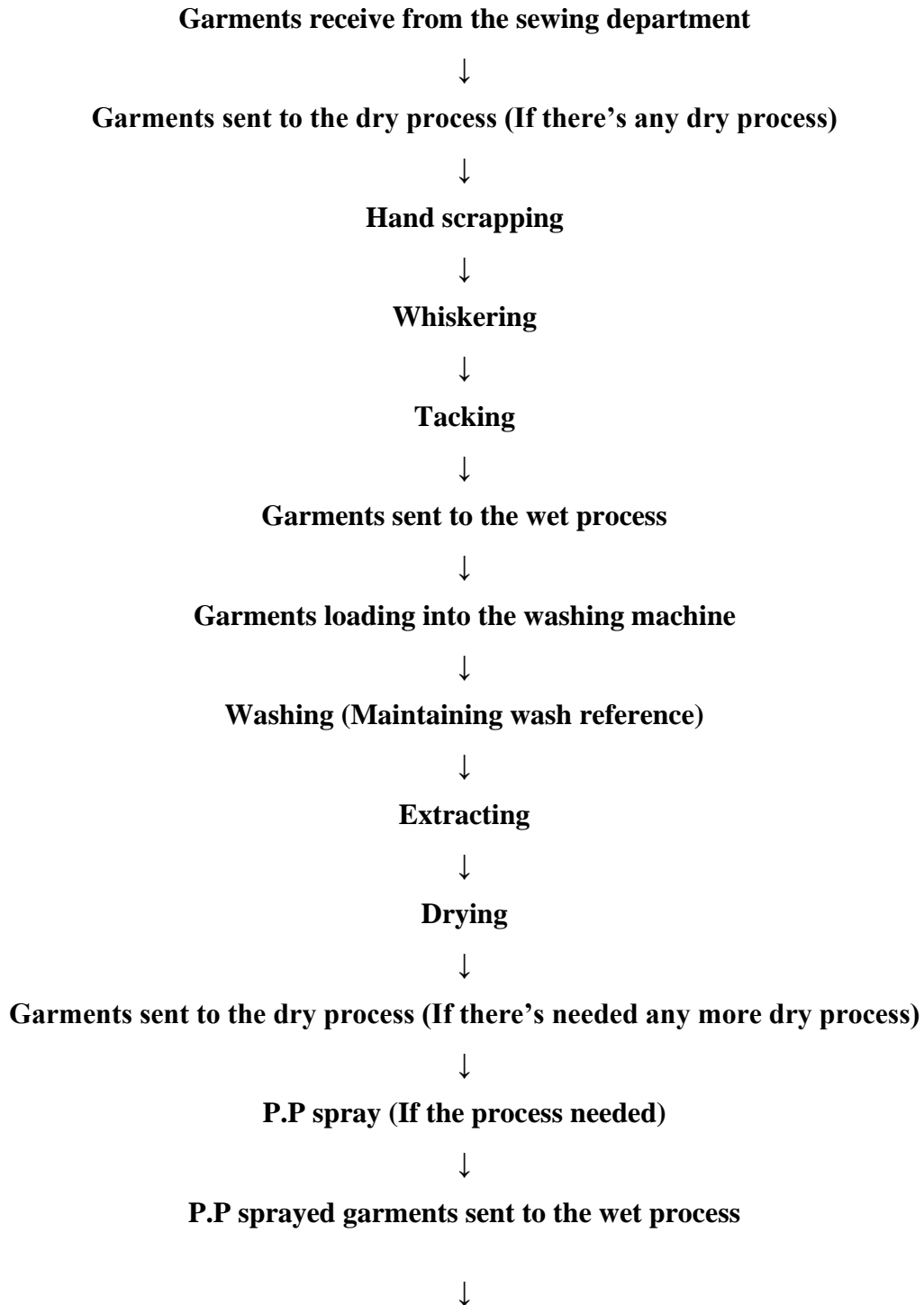
Clothing washing is a technology that is used to change the appearance, fashion, and comfortability of garments. Garments washing is an aesthetic treatment applied to denim fabric to improve its appearance and strength. A process flow chart, which is thoroughly detailed in this article, may be used to wash garments.



5.5: Organogram of Washing Department:



5.6: Process Flow Chart of Washing:





P.P sprayed garments loading into the washing machine



Washing (Completing rest of the wet process)



Extracting



Drying



Garments sent to the dry process (If there's needed any more dry process)



3D (If needed)



Curing



Quality check (Q.C)



Send to the finishing department.

5.7. Types of garments washing:

The different types/methods of washing are mentioned below:
Primarily garments washing are two types.

1. Dry process/ Mechanical process
2. Wet process/ Chemical process

Types of Dry process

- Whisker
- Hands scraping
- Over all wrinkles
- Permanent wrinkle
- Broken and tagging
- Grinding and destroy
- PP spray and PP sponging etc.
- Resin (3D)

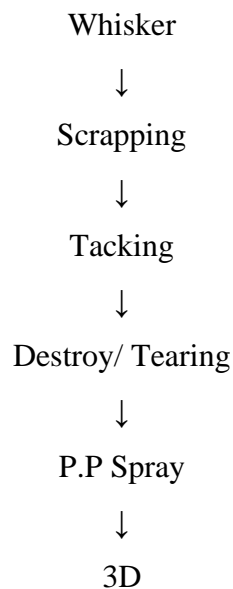
Types of Wet process

- Normal wash/ garment wash/rinse wash.
- Enzyme wash.
- Stone Enzyme wash.
- Bleach wash.
- Tinting (Tie) & Over Dyeing (Dip Dyeing).
- Soft wash.

5.8: Dry Process:

Dry Process, It is an important factor in garment washing. Garments are achieved a more fashionable look by applying dry processes. The dry process is mainly done by hand or mechanically.

5.9: Flow Chart of Dry:



5.9.1: Whisker

Whiskers are one of the most important designs of a used look garment. The idea of whiskers is taken from the worn out lines and impression patterns generated by natural wearing on hips and front thigh area. On old jeans, a number of patterns can be finding consequential to fabric, body shape of user or sitting posture. It is also known as Cat's Whisker.

5.9.2: Hand Scrapping:

To create the impression or visibility of pocketing fabric of any inside materials visibility to the face side of the jeans pants with the help of emery paper is called hand scraping. Emery paper comes in different number generally starts from 40 till 600 and above, higher the number finer the emery paper, lower the coarseness of the paper. In garment industry from 220, 320 & 400 number papers are most popular & widely used.

5.9.3: Tacking:

Tacking is a process which is being done by swift tag machine with the help of plastic or nylon tag pins in rigid form of garment to get very heavy contrast (rigid & washed) on waistband, bottom hems, back pocket & front pocket corners etc. After completing wash cycle, it must be removed from garment before making softening.

5.9.4: Destroy:

Destroyed Denim One of the most popular distressing effects currently, 'Destruction' is an art which makes denim look unique & used. To make destruction pen type of stone tools being used in mid of wash process to apply on desired area. It can also be achieved by cutting it thru knife the warp yarns & keep the weft yarn as is to show white thread. Holes also can be made by cutting weft & warp yarn.

5.9.5: P.P Spray:

Potassium permanganate is sprayed in specified areas of the garment to fade the color and give the hand scraped region a dazzling appearance. Denim, Twill, Poplin, and Corduroy materials are frequently used. After the first wash, it's finished. The hue of liquid potassium permanganate is pink, but when applied to a garment, it dries to a muddy brown or grey tint. To boost the potency of the acid, it is sometimes combined with acetic or phosphoric acid. The neutralization with Na-meta by sulphate or other neutralizing agents is always performed thereafter. The amount of potassium permanganate in the solution determines the brightness or impact.



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CHAPTER-12

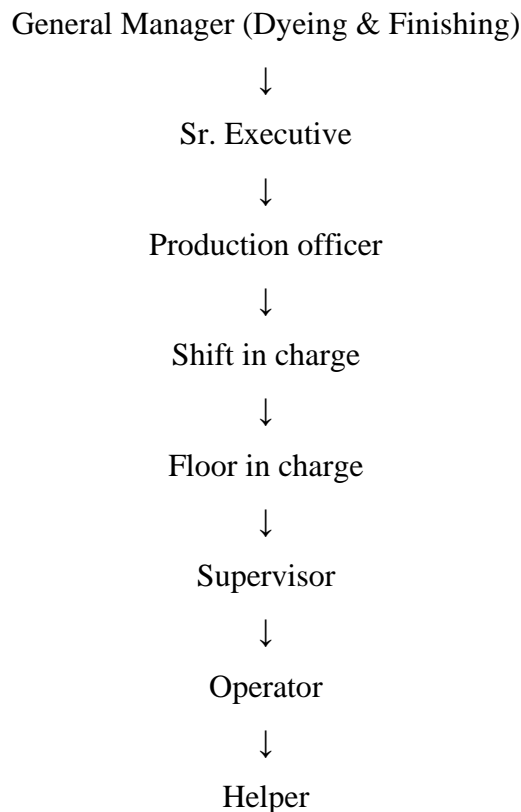
Finishing Section

6.0: Finishing:

Finishing is the final procedure of preparing packaged clothing for sale. As a result, it is a critical stage in the entire garment production process. The finishing division of the garment business is responsible for garment cleaning, checking, final inspection, pressing, and packing, among other things. The quality of the clothes may be enhanced and orders can be sent on time if the finishing procedure is done correctly. Now I'd like to walk you through the processes of the garment finishing procedure.



6.1: Organogram of Finishing Section:



6.2: Garments Finishing:

All of the apparel items are finalized before being sent to buyers. Tailoring shops can even complete fitted shirts and slacks. So, what exactly happens during the garment finishing stage? Here's a quick rundown of garment finishing methods. Pressing is the process of removing undesired creases and crinkles from a clothing in order to improve its smoothness, brightness, and beauty. In the garments industries it is called ironing. This procedure is critical in increasing the appeal of a product to potential purchasers.



6.2.1: Machine Used in Garments Finishing:

- Mattel Detector
- Blow air machine
- Sucking machine
- Tag machine
- Sewing machine
- Button Attaching machine
- Eyehole machine
- Iron etc



Fig: Metal Detector Machine



Fig: Tag Machine



Fig: Sewing Machine

6.2.2: Materials Used in Garments Finishing:

- Neck board
- Back board
- Full Board
- Hand Tag
- Tag pin
- Tissue paper
- Al pin
- Ball pin
- Elastic Clip
- Hanger
- Poly bag
- Size Sticker
- Jucker
- Gun tap
- Inner box
- Pp belt
- Blister



Fig: Hand Tag



6.3: Process Flow Chart of Finishing:

Sewn garments received in finishing section



Initial quality check



Spot removing if there's any spot



Ironing or pressing



Inspection



Hangtag attaching



Folding



Polybag



Metal check



Packaging or cartooning



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CHAPTER-13

Compliance

6.4: Compliance:

Compliance is defined as carrying out actions or developing procedures or policies in compliance with the standards or expectations of an external body, such as the International Labour Organization (ILO), a human rights organization, or international purchasing regulations, among others. The increasing expectations from regulatory agencies aiming at enhancing patient and consumer safety have had a positive influence on product quality. It is critical for management to take the lead in adopting compliance measures in order to encourage compliance.

Since 1978, Bangladesh has been a major player in the RMG (Ready Made Garment) industry. Textiles and garments make for over 85% of Bangladesh's total export revenues.

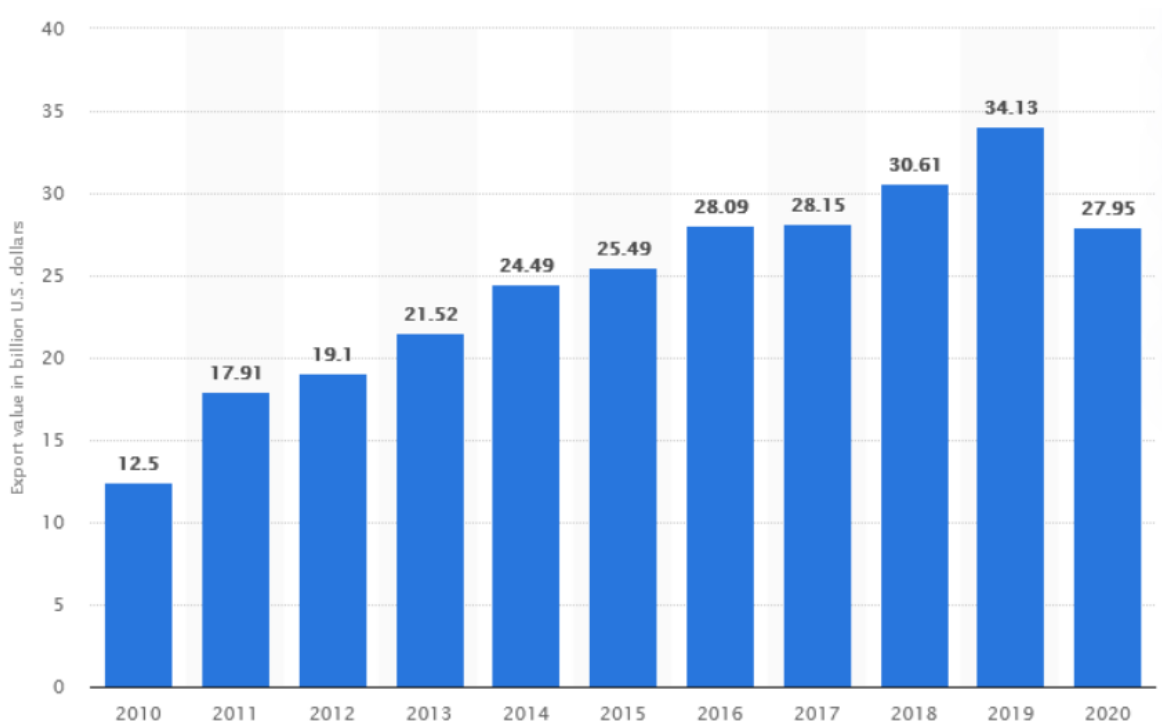


Fig: RMG export of Bangladesh throughout the last decade

The workforce, which includes sewing operators, assistants, cutting masters, pattern creators, and finishers, is critical in the garment business. Bangladesh has a large and inexpensive labor supply that can be readily trained and converted into semi-skilled and skilled workers.

Due to the lack of expertise and knowledge of garment makers involved in the trade, the quality of items exported from Bangladesh has long been questioned by foreign purchasers. In order to export readymade garments, not only are quality parameters important for acceptance of the product as intended end use, but also the working environment in which the garments are to be produced is equally important to ensure that the sweatshop concept is completely avoided and the code of conduct is stretched to achieve the goals of social compliance issues.

The key elements of social accountability are founded on international human rights principles, as well as local culture and tradition. The system's main goal is to defend human rights in the ready-made clothing industry.

6.5: Social Accountability:

In today's fast-changing global market, merchants and manufacturers value not just the quality of clothing, but also the working conditions of the organizations where the items are created. These are equally crucial in order to develop and strengthen customer confidence as well as to establish more trustworthy vendor partnerships. To put it another way, a specific code of conduct that safeguards the basic human rights of trade workers must be followed in order to please customers and give social value to the product. Understanding and monitoring the compliance portion of social responsibility in maintaining the image of a particular brand of goods requires a basic understanding of social accountability.

In order to accomplish so, reputable and leading market participants in the garment trade have made it a condition of the export contract for the linked factories to meet those goals. In the case of non-compliance with such concerns, shipments were either withheld or terminated abroad.

6.6: Code of Conduct (COC):

International organizations such as the Fair Labor Association (FLA), Worldwide Responsible Apparel Production (WRAP), Council on Economic Priorities Accreditation Agency (CEPAA), The Ethical Trading Initiative (ETI), and Business for Social Responsibility have developed social accountability standards (BSR).

Several well-known brand purchasers in the vast supply chain have followed the lead from those firms and developed their own COC and acceptance criteria.

COC's main principles are based on international human rights norms outlined in the International Labor Organization Conventions, the United Nations Convention on the Rights of the Child, and the Universal Declaration of Human Rights.

It has nine core areas to be addressed upon. These are as follows:

1. Child labor
2. Forced labor
3. Health and safety
4. Compensation
5. Working hours
6. Discrimination
7. Discipline
8. Free association and collective bargaining
9. Management systems

While meeting the aforementioned requirements is required to get a COC, local culture and government regulations should not be neglected. For example, the maximum working hours and remuneration for overtime may not be the same in many parts of the world. The economic state of the country in question also influences the minimum basic salary. The political context, the maturity level of the workforce, and, above all, the fundamental training of the organization's management all influence the adoption of free association and collective bargaining rights.

Several case studies in Bangladesh have been developed with respect to the information gained through genuine social compliance audits undertaken by senior auditors of globally well-known consumer protection organizations, bearing in mind the complicated context.

The following processes were used to perform social compliance audits based on the COC of different brand purchasers in the United States and Europe:

1. A meeting with the factory's management was held to kick off the project (informed the scope of audit)
2. Tour of the Factory (observed working condition)
3. Review of Documents (payroll, time card, personal file, age documentation etc.
4. Interviews with Employees
5. Meeting with plant managers to conclude (discussed audit findings and recommended necessary improvements).

The following are some of the most common results in various elements of social accountability. In most situations, suggested remedial activities are also listed. As indicated in Plates 1 to 6, some of the non-compliance concerns have also been photographed. This aims to have a better understanding of the current state of social compliance in various RMG enterprises in Bangladesh.

6.6.1. Child Labor:

Child labor was discovered at the plant, which was a violation. It was validated by the employee's appearance and the verification of personal documents. According to the workers' interview, one of them was around 13 years old.

Corrective Action: Any individual under the age of sixteen is considered a kid, according to the Bangladesh labor code's Factory Act of 1968. Article 66 makes it

illegal to hire anybody under the age of fourteen. The factory's management agreed to handle the situation.

The majority of child laborers have been removed from Bangladesh's RMG industry as a result of international pressure, however there are still rare incidents owing to economic reasons.

6.6.2. Forced Labor:

No such cases were found wherein there was use of forced labor in the factories. Direct evidence which indicates personnel shall require to lodge deposits or identity papers upon commencing employment with the company was also not available.

6.6.3. Health and Safety:

Workers at the Dyeing Department's chemical storage room did not use gloves or masks when handling chemicals and colors.

Management must give enough gloves and/or masks to the relevant workers in order to comply with Bangladesh's Factories Act, 1965, Chapters 3 and 4. They must be persuaded to utilize such protective equipment for their own safety through instruction.

Violation: There aren't enough restrooms on the factory floor to accommodate all of the workers.

Corrective Action: The factory must establish a sufficient number of toilets in compliance with Chapters 3 and 4 of the Factories Act of 1965.

There was no soap or towels in all of the manufacturing toilets, which was a violation.

Corrective Action: Soaps and towels should be available in all restrooms.

Fire extinguishers were discovered obstructed and not easily accessible in various locations of the plant, which was a violation.

Corrective Action: Ensure that all fire extinguishers are free of obstructions at all times. Yellow lines should be drawn on the ground in front of fire extinguishers to indicate that the area must be maintained free at all times.

Aisles were not clearly demarcated in different portions of the plant, which was a violation.

Corrective Action: The factory will designate the evacuation pathways on the floor with yellow lines. There was no evacuation plan in place throughout the plant, which was a violation.

Corrective Action: The manufacturer will establish and publish an evacuation plan in several locations across the facility to ensure a seamless evacuation in the event of an emergency.

Drinking water closets were discovered extremely close to the toilets (2-3 feet).

Corrective Action: According to Bangladesh's Factories Act of 1965, factories must keep drinking water closets at least 20 feet away from toilets.

Fabric rolls, boxes, clothes, and other items were found blocking primary/secondary aisles in various parts of the plant. A blocked electrical control panel was also discovered.

Corrective Action: In compliance with Bangladesh's Factories Act, the factory must ensure that all routes and control panels are unobstructed at all times.

Fabric cutting knife workers were not wearing protective hand gloves, which may result in a major accident at any time.

Corrective action: Factory management will provide metal hand gloves to operators and encourage them to wear them as safety equipment.

6.6.4. Non-discrimination:

No person of employee is subject to any discrimination in employment, including hiring, salary, benefits, advancement, discipline, termination or retirement on the basis of gender,

Race, religion, age, disability, sexual orientation, nationality, politically opinion, or social or ethnic origin.

6.6.5. Wages and Benefits:

We are giving high priority to pay employees Salary & overtime within 7th day of the following month to meet their basic needs. We pay salary & overtime on the basis of minimum wage fixed by local government. We also pay other benefits as required by our local law.

6.6.6. Health & Hygiene:

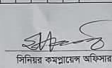
Our factory is lighted well with sufficient Energy saving bulb with reflecting shade and also have tube lights & natural flow of air. All floors are well ventilated and well furnished with sufficient hygienic toilets. Toilets are cleaned and flashing with sufficient quantity of tap water, workers are provided with pure & safe drinking water.

জয় অটো পার্মেন্টস লিঃ

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6.6.7. Doctors Room/Medical Centre/Day Care Centre:

We have all the arrangement for medication to employees. We have recruited trained Medical Officer, trained Nurse and have a Day care Centre with necessary First Aid along with all required emergency medicine. In case of critical/serious issue we are arranging treatment of patient in better hospital.

6.6.8. Safety Facilities/Fire Fighting:

We have two specious stairs where workers can easily move the factory. Besides, we are arranging 'Fire Door' for both of the exits according to current standard requirements. We also have full range of Fire fighting equipments and training people. Aisles are properly marked and always keeping clear to move easily.





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CHAPTER-14

Conclusion

6.7: Conclusion:

Finally, the student profited greatly from the field attachment in that he or she was able to put theoretical academic knowledge into reality through the numerous activities/tasks/assignments that the intern was assigned.

Interpersonal, listening, and presenting abilities increased, as did behaving freely around people, typing skills, accounting, recording, presentation, typing, dispute resolution, and organizing skills, to name a few. The student learned a variety of skills, such as how to calculate cost of a garments from start to end and how to work in a team atmosphere. The student gained varied perspectives from other persons (workers) within the organization, as well as by engaging with other interns, which greatly enhanced his or her education and experience.

By the grace of Almighty Allah, I have finished my industrial attachment successfully. I projected practical life destiny will be determined by our industrial affiliation. After two months of industrial attachment at Joy Auto Garments, we have the sense that the facility is one of Bangladesh's most advanced export-oriented woven garments manufacturing facilities. Despite the fact that it was just founded a few years ago, it has gained "extremely strong repute" for outperforming many other export-oriented textile factories.