

INTERNSHIP REPORT

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD
OF**

BACHELOR OF SCIENCE – FASHION DESIGN

by

SALONI.M(41105013)



**DEPARTMENT OF FASHION DESIGN
SCHOOL OF BUILDING AND ENVIRONMENT**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with “A++” by NAAC

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI – 600119

JULY 2023

SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT (S105AINT)

2023 – 2024

Name of the Student : SALONI.M

Reg No : 41105013

Semester : V

Batch : 2021-2024



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT (S105AINT)

2023 – 2024

VIVA –VOCE EXAMINATION

This is to certify that the Internship (S105AINT) is the work of SALONI.M - 41105013, during semester V, is a student of Fashion design department had undergone training in WHITE HOUSE INDIA PRIVATE LIMITED has been monitored by the continuous assessment during May 11/05/2023 to June 03/06/2023.

Submitted for Viva Voce examination held on: 06.09.2023

Mentor

Class Coordinator

Internal Examiner

External Examiner

Head of the Department

Head of the Department
Fashion Design
Sathyabama Institute of Science and Technology

DECLARATION

I SALONI.M here by declare that the Internship (S105AINT) for 21 days from May 11/05/2023 to June 03/06/2023 done by me under the guidance of Ms. S.SAVITHIRI, is my original work and is prepared based upon the data and information collected during my internship period is submitted in partial fulfillment of the requirements for the completion of practical training session.

Date: 06.09.2023



Place: CHENNAI

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA INSTITUTOF SCIENCE AND TECHNOLOGY** for their kind encouragement in doing this Internship and completing it successfully. I am grateful to them.

I convey my thanks to **Dr. DEVYANI GANGOPADHYAY** Dean, School of Building and Environment for providing me necessary support and details at the right time during my internship period.

I express my deep sense of gratitude to **Ms. S. KRITHIKA** Head of the Department, Department of Fashion Design, School of Building and Environment, for providing me the assistance and knowledge at the right time during the progressive reviews.

I admire, the great opportunity that has provided to us and all the elements that made a contribution toward my understanding throughout this period I would like to extend my sincere gratitude to **Ms. AHILA** for giving me this wonderful opportunity of an industry internship program.

I would like to express my sincere and deep sense of gratitude to **Ms. S. SAVITHIRI** for her valuable guidance, suggestions and constant encouragement. Paved way for the successful completion of my Training.

Last but not the least, I would also like to thank all my **Family Members**, friends and relatives who shared their support to me during the Internship period.

ABSTRACT

The report is on garment manufacturing process in white house India exports private limited,Guduvanchery.This report is made on practical knowledge on how garment are made,what are the procedure followed etc.This report is made by observing,discussing with related people,taking information from files analysis standard of white house.In this report I discussed about different departments in garment industry, how department are interrelated and what is the work flow etc.So I this report give a complete information on garment manufacturing.

BONAFIDE CERTIFICATE FROM COLLEGE



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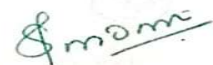
Ref: SHD/2023/04/24/54

24 April, 2023

BONAFIDE CERTIFICATE

This is to certify that **Ms. SALONI M**, Register Number **41105013** is a Bonafide student of our Institution pursuing 2nd year **BACHELOR OF SCIENCE in FASHION DESIGN** during the academic year **2022-2023**. She will be completing the course in the year **2024**.

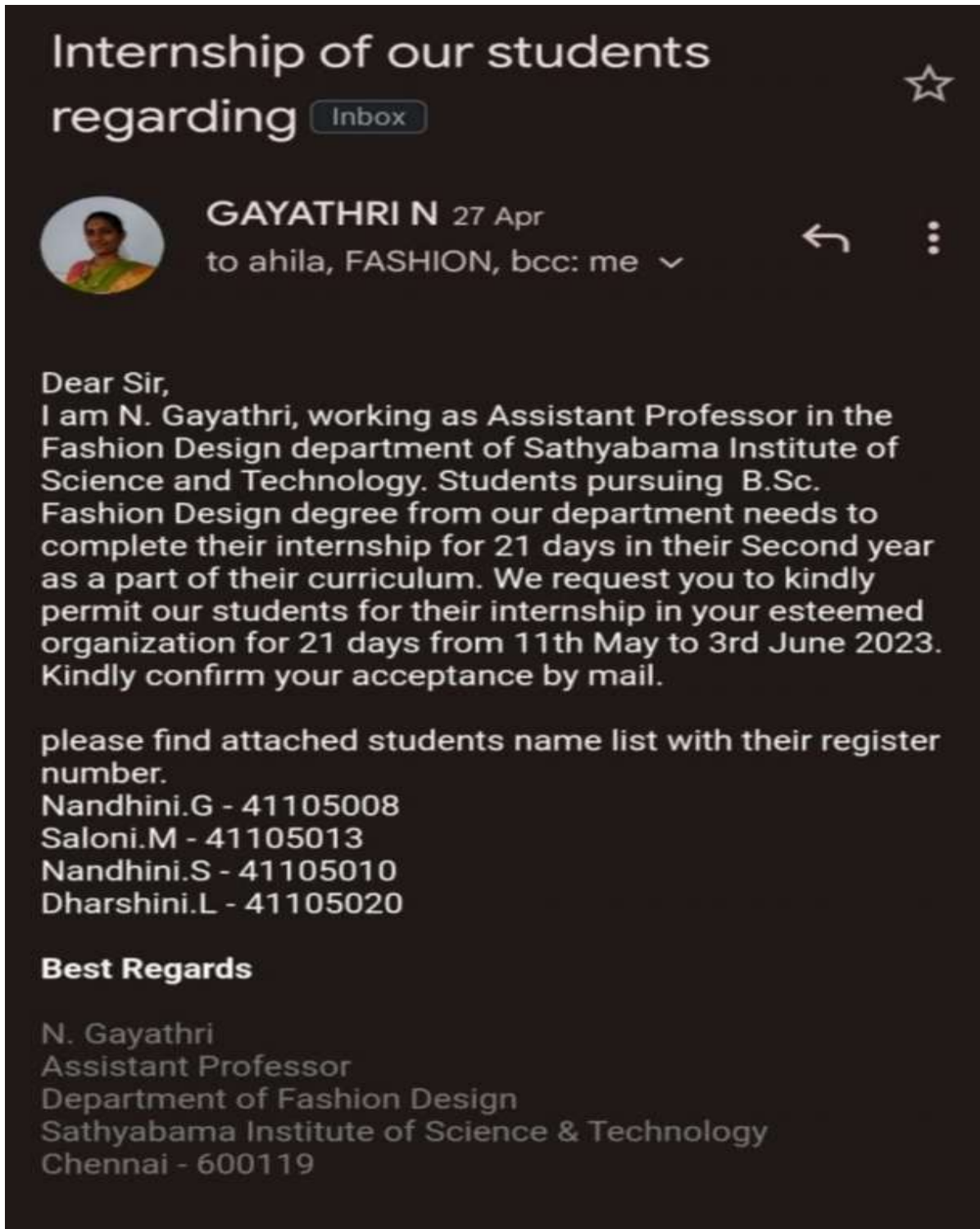
This certificate is issued for the purpose of **Applying INTERNSHIP**.


DEAN (STUDENT AFFAIRS)

**Dr. G. SUNDARI, M.E., Ph.D.,
DEAN (STUDENT AFFAIRS)**

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai – 600 119.

MAIL REQUEST FROM DEPARTMENT TO COMPANY



MAIL ACCEPTANCE FROM COMPANY



GAYATHRI N 27 Apr

Dear Sir/Madam, I am N. Gayathri, working
as Assistant Professor in the Fashion Design



GAYATHRI N 28 Apr

to me, nandhinigajendran693



Best Regards

N.Gayathri
Assistant professor
Department of Fashion Design
Sathyabama Institute of Science and Technology
Chennai - 600119

----- Forwarded message -----

From: Whitehouse India <ahila@whitehouseindia.com>
Date: 27 Apr 2023, 10:06 am
Subject Re: internship of our students regarding
To: GAYATHRI N <gayathri.design@sathyabama.ac.in>
Cc: FASHION HOD <fashionhod@sathyabama.ac.in>

Hello Gayathri,

Good to hear from you on internship program and thank you
for approaching us.

We encourage new generation and support them to learn new
aspects of current market fashion and trends.

Will surely support your student to pursue new learning
opportunities and their dreams.

Thanks & Regards
Ahila
Whitehouse India

PERFORMANCE APPRAISAL

DEPARTMENT OF FASHION DESIGNING

PROFESSIONAL TRAINING REPORT 2023

(continuous progress report of the fashion design trainee for the period of 21 days in the industry to be submitted to HOD by the trainee in charge the organisation

1. Name of the industry : White House India Pvt Ltd
2. Address and contact Number: No:6, GST road village, Nandhivaram, Nandhivaram, Guduvanchery, Tamil Nadu -603202
3. Name of the student: Saloni.M
4. Duration: 11.05.2023 - 03.06.2023
5. Total no of days: 21 days
6. Evaluation of performance criteria shall be on
* Note: kindly grade the student as per her overall performance in the office during the assessment days, which will be converted to the allotted 40 marks by the department.

Description of works	Excellent	Good	Fair	NA
Understanding of the departments	✓			
Participation in the industry	✓			
Handling the given work	✓			
punctuality		✓		
Coordination with other workers	✓			
Attitude	✓			
Overall performance	100% Good Job Done.			

All the best for us career growth!!!
as you wish be a good model in future!

Compliments & suggestions:

Saloni, worked as a Intern in white house during the period of 11/5 to 3/6. She worked well and also good in co-ordinating the work with design team.

Signature of the head of the office:



CERTIFICATE



08/06/2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **MS.M.SALONI (41105013)** Studying B.sc Fashion Design in Sathyabama Institute of Science and Technology, have successfully completed her “ **Internship Training** ” at our organization during the period from 11-05-2023 to 03-06-2023.

During the period her conduct and character was found satisfactory.

For white house
For WHITE HOUSE

Authorised Signatory

(AGM-HR)

WHITE HOUSE
No. 6, G. S. T. ROAD,
NANCHIVARAM VILLAGE,
GUDUVANCHERY-603 202,
TIN : 33169520457

Two Star Export House Certified by the Govt. of India • Approved by the Govt of India for Projects contributing to Sustainable Development in India

Tel : +91 44 25619000
info@whitehouseindia.com
www.whindia.in



INTERNSHIP DETAILS

1. INDUSTRY / ORGANIZATION: White House

Mentor Name : Mr. Saranya

Designation of the mentor: Design Incharge

Contact Number : White house India exports private limited.

Address : No;GST Road,Village,Guduvanchery,Tamilnadu 603202

2. INSTITUTION: SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Mentor Name : Ms. S.Savithiri

Designation of the mentor: Assistant Professor

Student Name : Saloni.M

Department : Fashion Design

Address : Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai- 600119 Tamil Nadu, INDIA.

DAILY REPORT

DATE	REPORT
11/5/2023	Visiting a Company's Showrooms
12/5/2023	Sample Department
15/5/2023	Cutting department
16/5/2023	Printing unit
17/5/2023	Design Department
19/5/2023	Packing Development
20/5/2023	Costing Department
22/5/2023	Design Department
23/5/2023	Surplus Department
24/5/2023	Tech pack
25/5/2023	Stitching department
26/5/2023	Yarn store
27/5/2023	Manual cutting
28/5/2023	Quality checking
29/5/2023	Dyeing unit
30/5/2023	Embroidery unit
31/5/2023	Cad unit
01/6/2023	Merchandising department
02/6/2023	Fabric / trims
03/6/2023	Design department/store room
04/6/2023	Production department

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1.INTRODUCTION

- White House is a manufacturer and exporter of cotton and blended knit garments,since 1985 to the European,UK,US and Australian markets. Currently they supply to world-wide reputed brands,who have their outlets in over 36 countries.They have a vertically integrated set up and all the operation Required for making knit Garments are in - house.They produce wide range of products for men, Women,& children Garments, based on customer specification.
- Though critical and deep study, this report examines the type of production system that is used in Fashion apparel industry. It shows the analysis and comparison of production with respect to cost, Quality and productive. In this efficiency is the most important thing. The sewing system is depending Upon the efficiency and style.
- This is study based on complete operations of casual wear, street wear, sports wear, Active wear, Like T shirt, Henley , polo, sweat shirt, sweat hood, legging.It also focus on the positive and negative Aspects of production system. This company give more important to the customers need and to satisfy Their needs without any negative feedback.

2. COMPANY PROFILE

Company name	White House India Private Limited.
Address	No: 6 , GST Road , Village , Nandhivaram , Tamilnadu ,603202
Phone no	04427469000
Gmail	Ahila@Whitehouseindia.com
Company Category	Company limited by shares
Company Sub Category	Non-govt company
Class of Company	private
Date of Incorporation	17April 2008
Age of Company	15 years, 1month,17days
Company status	Strike off



Figure1

White House India Exports Private Limited is a Private company on 7 April 2008. It is classified as Non - govt company and is registered of companies, Chennai. It is involved in other wholesales [includes specialized wholesale not covered in any one of the previous categories and wholesale in a variety of goods without any particular specialization.]

White House India Exports Private Limiter's Annual general meeting (AGM) was last held on 30 September 2014 and as per record from ministry of corporate Affairs (MCA), its balance sheet was last field on 31 march 2014.

Director of White House India Exports Private Limited are Abdul Barr Abdul Hui, Abdul Thahir, Mohammed Iris, Abdul Wajeed, Mohammed Mukthar and Mohammed Elias.

White house is a manufacturer and export of cotton and blended knit garment, since 1985 to the European, UK, US and Australian markets. Currently we supply to world-wide reputed brand who have their outlet in over 36 countries.

Since 2014, they started manufacturing sustainable fabrics for our garment production using following yarns, importance also given for using sustainable material for trims and packing materials for our garment production.

2.1.COMPANY LOGO:



Figure2

2.2.QUALITY MANAGEMENT:

White house endeavour to exceed customer's expectation on quality standards. White house has exclusive internal quality audit team (IQAT), of QANTAS headed by a quality manager independent to the factory quality team and reports to the top management.

Their goal is to ensure that excellence is inherent in every step of the garment Manufacturing from garment finished stage, All fabric and finished garment inspection are verified and authorized by the IQAT. This team is nominated by some of our customers to conduct final garment inspection on behalf of them.

2.3.BUYER NAME:

- 1.Gant.
- 2.CWF-Boss, Hugo, Kall, DKNY, Timberland.
- 3.POLO
- 4.Lee
- 5.Dickies
- 6.Marc Jacobs
- 7.TBS
- 8.Tom tailor
- 9.Asma
- 10.Decathlon.

2.4.GARMENT:

They have a vertically integrated set up all the operation required for making knit garments are in house. they produce wide range of product for men, women, children garment based on customer specification.

Some of the product types we produce for our customers are:

- 1.T-shirt
- 2.Polo
- 3.Sweat hood
- 4.Sweat shirt
5. Sweat zip
- 6.Cardigans
- 7.Pants
- 8.Shorts
- 9.Tank Top

2.5.FABRIC:

They have a strong R&D department wherein they develop new fabrics for our esteemed customers, some of the grey, mélange and yarn dyed fabric type they produce for our in-house consumption and customers

1. Single jersey
2. Single jersey plated
3. Single jersey popcorn
4. Single jersey quattro
5. Single jersey mini jacquard
6. Pique
7. Honeycomb pique
8. Fleece
9. Rib
10. Interlock
11. Flatback rib
12. 8 lock double knit structures.

2.6.SUSTAINABLE PRODUCT:

Since 2014 they have laid a lot of emphasis on sustainable fabrics, trims and package material for our garment production.

They source following yarns with stringent quality specification to knit various type of fabrics.

1. Organic cotton
2. Organic cotton / recycle polyester blends
3. Organic cotton/recycle cotton blends
4. Organic cotton /hemp blends
5. Organic cotton/bamboo blends
6. Organic cotton /Tencel blends

They have taken steps on sustainability through various measures including.

- 1.Waste minimization
- 2.In -process control
- 3.Adoption of clean technologies

2.7.QUALITY GUARANTEED:

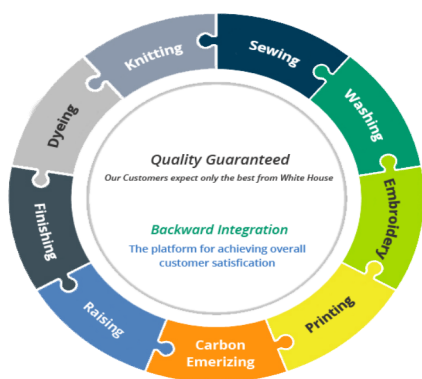


Figure3

2.8.CERTIFICATIONS:



Figure4



Figure5



Figure6



Figure7

3. INDUSTRY MANAGEMENT

3.1. Industry management:

- 1.HR
- 2.welfare
- 3.Finance
- 4.Purchase
- 5.sourcing
- 6.Merchandising
- 7.designing
- 8.Sampling
- 9.Cad
- 10.Printing
- 11.Embroidery.

3.2.HR (Human Resources):

The full form of HR in a company is human resources. Human resources professionals are responsible for defining, building, managing and improving the labour workforce within an organization. They address concerns, provide disciplinary action and improve the workforce to support the organization's overall performance.

The human Resources manager plans a key role in the recruitment, growth and development of the brand's teams. The HR manager will work closely in leadership and human resources teams to help develop and implement talent processes and employee relations practices.

The role will provide support in enhancing business objectives through organization design, learning and development, performance management, and career and succession planning.

HR is known by different names – personal management, personal administration, man power management.

The successfully functioning of apparel industry is determined by the factors like men, material, money and market.

3.3.WELFARE:

Welfare refers to assistance programs sponsored by government for needy individuals and families, including schemes, such as food stamps, health care assistance and unemployment compensation. These welfare

schemes are typically financed through taxation. employee welfare refers to all aspects of a workspace environments that support the well-being of its staff. This includes physical safety, mental health, and stress-management programs. It also encompasses employee benefits such as health insurance, vacation time, retirement plans and other support services.

3.4.FINANCE:

The fashion industry has a particularly long cash-flow cycle and, therefore needs financing to fund the period between production and sales. Fashion involves design, factory contracting, production, logistics and retail sales.

Supply chain finances deals with the funding of long- term purchasing of materials, coordination the preparation of financial plans including budgets, forecasts and headcount analysis based on the published timetable. They monitor actual financial performance against supply chain plans, prepare variance analyses and coordinate the release of KPI and other information.

3.5.PURCHASE:

The purchasing department is similar to the sourcing department but main differences is that the sourcing department works for sourcing the fabrics along while the purchasing department works for sourcing the accessories and trims. The merchandisers give the tech pack and BOM (bill of materials) for a particular style to the purchasing department and the concerned person will start the further process and for costing purposes the in-house price is given like, the cost involved in the production and also the price involved for a unit involved with respect to the complete procedure involved for its production.

3.6.SOURCING:

Sourcing department along with apparel merchandiser plays the vital role to execute and shipment of export order successfully. Merchandiser must make that all approvals related to fabric and trims should be coordinated with the sourcing department in given time frame. Fabric sourcing department is basically engaged in determining how and where its merchandise. Fabric will be obtained within the scheduled time and cost. A sourcing manager must have knowledge about all varieties of fabrics and trims in order to execute their functions effectively

TYPE FABRIC SOURCING	DESCRIPTION
Local Manufacturer	Fabric is manufactured locally, with local infrastructure.
Traditional Export	Local fabric is exported to garment manufacturing countries.
International sourcing	Fabric is made locally, but raw yarn or fibre is sourced from other country.
Global sourcing	Fabrics are made with parts sourced from abroad as part of global sourcing strategy.
Off-shoring	Raw material is exported first yarn or fibre, then fabric is re imported to meet the demand.
Global manufacturing	Fabric is manufactured in other country.

3.7.METHOD OF SOURCING:

Outsourcing: Having suppliers provide goods and services that were previously provided internally.

In sourcing: Delegating a job to someone within the company.

Near sourcing: A business places some operations close to where its products are sold to save time and money.

3.8. INCLUDED SOURCING:

1. Domestic
2. Mail communication
3. Trims
4. Accessories
5. Sewing threads
6. Tags
7. Hand tags
8. Packaging covers.

4. MERCHANDISING

Fashion merchandising can be defined as the planning and promotion of sales by carrying out the right market at the proper time , by carrying out organized, skillful advertising , using attractive displays. Merchandising within fashion retail, refers specifically to the stock planning, management, and control process. Fashion merchandising is a job that is done world-wide.

4.1.FASHION MERCHANDISING:



4.2.VISUAL MERCHANDISING:

It helps to organize the retail space and help customers find what they're looking for easily - thus improving their experience while shopping in your store. Moreover, it helps to attract, engage and inform customers better with carefully designed displays.

4.3.RETAIL MERCHANDISING:

Fashion merchandising may work within retail operation as buyers who select product lines and create promotions to enhance both brand and market share. other work directly for designers and fashion label placing products in store, finding shelf space and managing marketing and promotions.

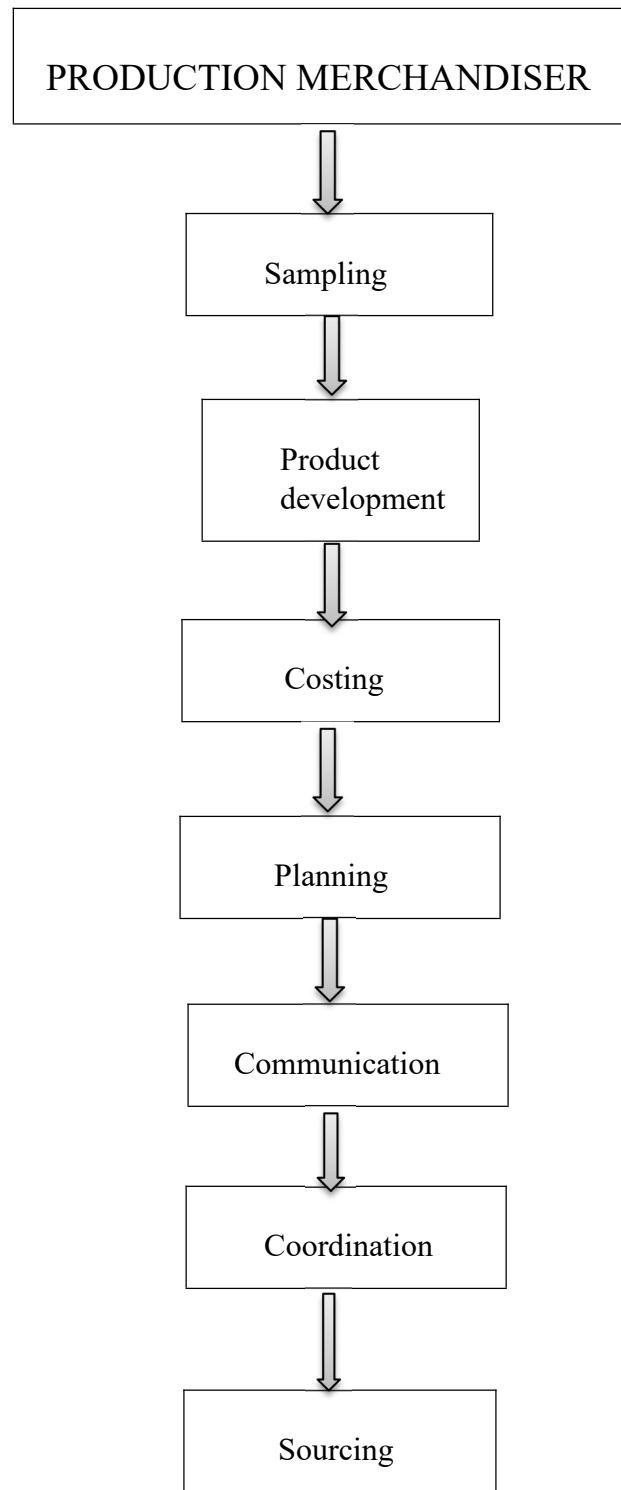
4.4.EXPORT MERCHANDISING:

Export merchandising applies all the principle of product merchandising but in a country separate from the originating business's home territory.

4.5.WHAT FASHION MERCHANDISING DO?

1. Creating promotional campaigns
2. Designing store displays
3. Overseeing marketing and advertising efforts
4. Setting appropriate retail prices
5. Analyzing buying trends

4.6.FUNCTION OF PRODUCTION MERCHANDISER:



5.COSTING

The cost of the garment is calculated by adding the costs of various raw material , the company's operating coats, and the expected profit, It is also necessary to the buyer's pricing expectations.

5.1.MAIN FACTORS THAT AFFECT GARMENT COSTING:

Let's start by defining the key factors that determine the cost of a garments.

1. Fabric type
2. Trims and notions
3. Labels and packaging
4. The cost of making
5. Shipping and logistics
6. Profit of the manufacturing organization
7. Other expense.

1.TRIMS, THREAD, BUTTONS, ZIPPERS AND OTHER ACCESSORIES:

Apart from main fabric garment construction include other materials like trims, button, thread ,zippers, elastics, etc. Their quality and quantity affect the cost of the garment. The size, shape, and material used in trims like zippers, buttons, and labels also sums up the cost of making a garment.

2.FABRIC:

Fabric is generally the most significant factor in the costing of a garment. Fabric accounts for 60 to 70% of the total cost of basic – styled garments.

3.LABELS AND PACKAGING:

The cost of poly bags and cartons used for shipping is highly dependent on thickness, dimension and raw material used. the cost of packaging is equally important as it gives a significant difference when we consider the whole order quantity. Hand tags or price tags are used as packing material, the cost of hand tags are department upon material used, printing on it, MOQ (Minimum Order Quantity.)

4.COST OF MAKING:

The cost of making is based on the total cost per hour multiplied by the number of hours it takes to make the style and divides by the number of units produced if the making is done by a contractor. The contractors adds profits on to this amounts.

5.SHIPPING AND LOGISTICS COST:

The is basically what you earn when you sell your garment. This amount includes your own pay, helps business stay afloat and invest into developing new styles.

5.2.COSTING SHEET:

GARMENT COSTING SHEET			
Product name	tshirt		
Style no	AAA	Date	XXXX
Buyer	BBB	Country	USA
Size range	XL	Season	Autumn/winter
Product description	XXX	Selling price	XXX
Fabric costing	Particulars	Details	Amount
Fabric material	Metre per unit	Cost per metre	Sub-total
Total fabric cost			XXX
Average dyeing cost			XXX

5.3.THEY HAVE A THREE TERM FOR SHIPPING COSTING:

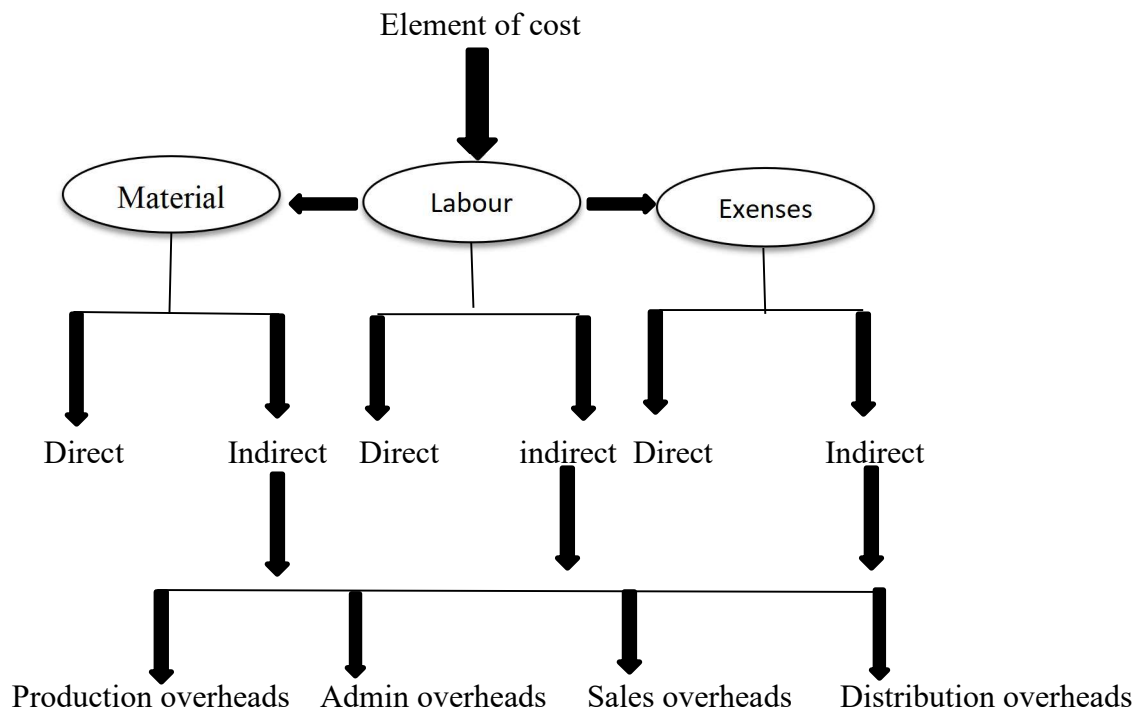
1. INCO TERM: It states that the seller is not only responsible for delivering the goods to the port specified by the buyer, but also bears the transportation cost of the goods destination.
2. DDP TERM: DDP(delivered duty paid) is a delivery agreement whereby the seller assumes all of the responsibility, risk, and costs associated with transporting goods until the buyer receives or transfer them at the destination port.
3. FOB TERM: FOB(free on board) it signifies a transportation term used to indicate that the goods includes delivery at the seller's expense only up to a specified point.

5.4.COSTS TO CONSIDER:

1. Direct cost: Cost of raw material-66%. Cost of size and chemical-4%. Production cost comprising of running the machine, maintenance, power fuel, humidification and other utilities-8% and worker wages and salaries-8% losses incurred due to shrinkage, wastage, grading, and also selling commissions.

2. Indirect cost: Interest on investment, loan, working capital, depreciation, etc. About 7%, overheads and administrative expenses like traveling, telephone, couriers, legal issues, taxes comprising of 7%.

5.5.ELEMENT OF COST:



6.DESIGNING

Forecast colour, trends and designs for export markets. Fashion designers are the creative minds behind original clothing, accessories and footwear. They sketch out design that can be constructed into a variety of products, from fabrications to pattern, with instruction on how they want it done.

They have two collection:

- 1.creative
- 2.commercial collection.

CREATIVE:

A creative designer in fashion industry is professional who is responsible for designing and creative fashion products, such as clothing, accessories .they are the ones who conceptualize and bring to life the idea and trends that drive the fashion world.

COMMERCIAL COLLECTION:

They commercial success of the collection is how well your item sell, how much they are demanded by customers, and not just created to participate in contests or show. They will do it for mass production.

5 STEPS FROM IDEA TO MASS PRODUCTION:

1. Start with a well – research concept
2. Turn the concept into useful 3D CAD model
3. Proper prototyping
4. Test out your product before full production
5. Mass production.

SUPPLY CHAIN MANAGEMENT:

The supply chain management of the flow of goods, data, and finances related to a product or service, from the procurement of raw material to the product at its final destination.

They are five supply chain management:

- 1.supply planning
- 2.production planning
- 3.inventory planning
- 4.capacity planning
- 5.distribution planning.

FASHION SEASON:

1. Spring, Summer – January & April
2. Fall, Winter -July & September
3. Pre spring – January
4. Resort – December
5. Summer – mid June & July
6. Winter – December & July

FASHION FORECAST WEBSITE:

1. Prostyle
2. Style sit
3. F trend
4. Running way
5. WGNS

TRADE SKETCHING:

1. Tech pack
2. Only color sketch
3. Colour pantone
4. Construction
5. Point to measurement
6. Accessories and brand label
7. Embroidery size.

RANGE PLANNING:

1. Present
2. Product range
3. How they are present
4. Create new thing
5. Sourcing
6. Fine is very important.

6.1. Design Department:

The design department can be considered as the research and development department of a clothing factory, because it is in this department that the prototypes of garments are developed and prepared for selling and production. For most factories the process of product development involves seven stages;

- 1.Forecasting
- 2.Designing
- 3.Collection planning
- 4.Pattern Making
- 5.Technology
- 6.Production of sample garments
- 7.Pattern Grading

1. FORECASTING:

Fashion forecasting is information that offers effective and highly accurate trend predictions to the fashion, style and related industries. Fashion intelligence and industry experience shape the reports which are creative, inspiring and highly focused on various product. This provides analysis of current and future fashion trends and a very comprehensive coverage of Colour & trend direction, 18 months in advance of the season followed by design reports for each trend, 12 months ahead.

2. DESIGNING:

The designers work in different ways. Some sketch their ideas on paper, while others drape fabric on a dress form and some others use computerized design system. These systems are becoming widely used and provide the designer with a highly versatile and flexible tool for creating new designs in the shortest time. The designer with the help of forecasting trends of style, colour and fabrics develops the illustrations/sketches for haute couture or ready made or mass market.

3. COLLECTION PLANNING:

This process is in effect the pre production phase of sampling and the objectives are to set out in detail the styles, fabrics and colors which will represent the company's proposals for the forth-coming season. The designer works in close co-operation with the marketing department and together they attempt to determine the best possible style, fabric and price combinations. Using the sketches of core collection, various alternatives and approaches will be examined:

- 1.Developing the variations from the core designs,
- 2.Trying the same cloth on a number of different designs,
- 3.Modifying some of the ideas to make garments more acceptable to a wider range of customers,
- 4.Addition of 'fill-in' type garments for which there may be a steady demand throughout the season.
- 5.Inclusion of garments which some of the larger buyers have indicated an interest.
- 6.Balancing the contents of the collection so that it contains the optimum style and price combinations.

4. PATTERN MAKING:

Pattern making may be done manually by a trained patter maker with a paper and measuring tools or by using an auto CAD or by draping fabric directly onto the dress form. The resulting pattern pieces are used to construct the garment in required size. Various shapes and sizes of pattern pieces can be produced for various styles of garments.

5. TECHNOLOGY:

Technological innovations in the garment industry have been tremendous. Each and every department of the apparel industry has the scope of highly efficient machines. Use of sophisticated and advance ,machine improves the quality of the product and maximizes the profits of the company.

6. PRODUCTION OF SAMPLE GARMENT:

Sampling unit within the industry makes sample garments supervised by the pattern maker or the designer. Sampling is a continual process during the development of new product. A sample needs to conform to the design, fabric and color trends along with the perfect fit analysis. Cost of each sample must be accurately calculated in order to determine the cost price and then the selling price.

7. PATTERN GRADING:

Pattern sizing and grading done on computer or manually is link between pattern design and generation and preparatory stages of cutting in different sizes. It is the process where patterns of different sizes are produced from the original master pattern.

6.2.Design department activities:

Apparel design department is responsible for product development. They focus on developing garment designs in similar product categories the company does its business. Designers develop new design collection every season. Designers make designs as per the latest trends and buyers test. For big manufacturers, the designing department plays an important role in retaining customers by showing new designs to their buyers in every season. Designers develop a library for fabrics, trims and accessories, and for garments. Apparel retailers and brands those have own manufacturing set-up, normally set up the design department for developing new designs.

7. SAMPLING

Sampling is very important for garment manufacturing process in a textile industry. For confirming an export order, sampling plays an important role. Buyers require different types of sample from different stages of the order process.

7.1.SAMPLING FLOWCHART:

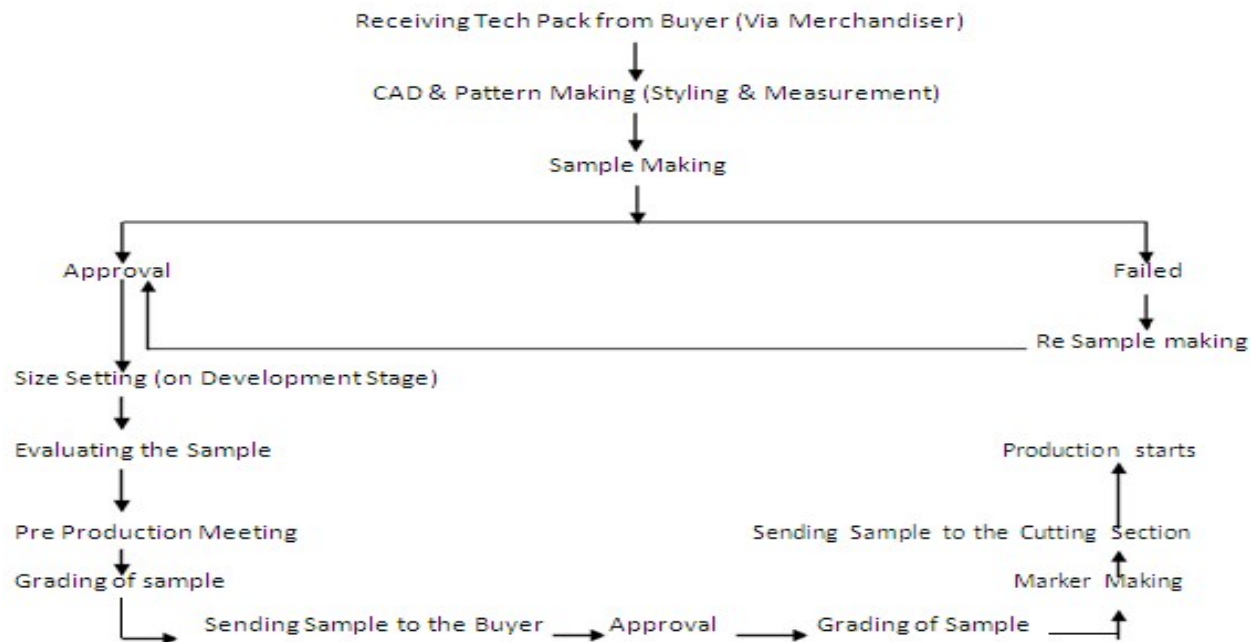


Figure8

7.2.TECH PACK:

A Tech Pack, also known as specification sheets, is a set of documents created by designers to explain their design to a manufacturer so that they can turn this information into a finished garment.

Tech-pack generally includes flat sketches, Cads (computer aided designs), colour-ways, sizing information, reference images, labeling and packing information, as well as a bill of materials.

7.3.CAD&PATTERN MAKING:

The main function of CAD in the cutting room is for marker making which can be done manually or automatically through a powerful algorithm providing the highest material utilization.

7.4.SAMPLE MAKING:

Sampling is a process of making a product pro to-type prior to starting bulk production. The same process is applied to garment sampling. In mass garment manufacturing, where apparel brands source garments in bulk quantity, sample making is an essential step before placing the bulk order.

1. Fabric store
2. Cutting section
3. Sewing floor
4. Embroidery section
5. Printing section
6. Finishing section
7. Quality checking
8. Packing section
9. Shipping.

7.5.SAMPLE MAKING STEP AND STEP:

- 1.Receive spec sheet of garments from buyer.
- 2.Make pattern as per measurement.
- 3.Check the pattern which has made.
- 4.If necessary Check shrinkage, twisting, bowing before patter making,cutting fabric.
- 5.Collect accessories.
- 6.Start sewing.
- 7.M/C specified.
- 8.Check the sample to ensure it, OK.
- 9.Actual size required.
- 10.Actual fabric construction.
11. Send it to buyer for approval.

OPERATION BREAKDOWN OF HOODIES:

s.no	Body part	Operation
1.	Hood	Hood upper two part stitch.
2.	Hood	Hood upper topstitch.
3.	Hood	Hood liner two part join.
4.	Hood	Hood upper n liner two part join.
5.	Hood	Bluff stitch hood join seam.
6.	Hood	Hood mark n make hole.
7.	Hood	Eyelets attach at hood.
8.	Hood	Hood channel make.
9.	Hood	Hood middle tack.
10.	Hood	Hood lower edge close.
11.	Hood	Hood crotch tack.
12.	Pocketing	Pocket position mark.
13.	Pocketing	Pocket hem kangaroo pocket.
14.	Pocketing	Pocketing edge press.
15.	Pocketing	Pocket attach and edge close.
16.	Pocketing	Pocket excess raw-edge cut.
17.	Pocketing	Pocket opening secure X4.
18.	Assembly	Front n back part match.
19.	Assembly	Shoulder join with/without tape.
20.	Sleeve	Sleeve n body match.
21.	Sleeve	Insert sleeves in hoodies.
22.	Sleeve	Armhole topstitch.
23.	Label	Care label make.
24.	Label	Flag label tack at side.
25.	Assembly	Side seam ins care label.
26.	Cuff	Cuff join as a circleX2.
27.	Cuff	Cuff fold into half.
28.	Cuff	Cuffs attach at sleeve opening.
29.	Hood	Hood n body match n mark.
30.	Assembly	Hood tack at neck.
31.	Hood	Hood attach to body.
32.	Assembly	Front neck topstich.
33.	Neck	Tape attach at back neck.
34.	Neck	Back neck top stitch.
35.	Label	Label make.
36.	Label	Attach main label at back neck.

8.CAD DEPARTMENT

Computers are helping to design, analyse and manufacture the product with short span of time in engineering applications. A computer is a fast and accurate data manipulating system that is designed to automatically accept and store input data. Process them and produce output results under the directions of a stored program

8.1.CAD:

Computer-aided design (CAD) is the use of computer systems to assist in the creation, modification, analysis, or optimization of a design.

- CAD software is used to increase the productivity of the designer, improve the quality of design, improve communications through documentation, and to create a database for manufacturing
- CAD output is often in the form of electronic file for print, machining, or other manufacturing operations.

USES OF CAD:

CAD software is used in the textile industry:

- Helps designers draw accurately.
- You can see the products in 3D.
- You can rotate the design and view it from all angles.
- To make changes and modifications quickly and easily
- To experiment with different patterns, textures and colour ways.
- To develop basic or standardized designs.

8.2.CAD IN CUTTING:

Cutting machine automatically cuts out the pieces following the lay plan. It cuts the fabric quickly and accurately using vertical knives, high pressure water jets or lasers. Many layers can be cut out at once which means less labour costs and more efficiency . Quick, accurate set-up and self-adjusting which allow operators to start cutting faster and with greater efficiency. Less time consuming & increase production



Figure9

9. PRINTING

Fashion Prints are the prints which are not woven into the fabric but are applied over the fabric. It is an applied form of print which is done by using various techniques. We will be talking more about digital print. It is described as an ink jet based method of printing colorants onto the fabric.

TYPES OF PRINTING:

1. Pigment printing.
2. Non-PVC printing.
3. Discharge printing.
4. Glitter printing.
5. Foil printing.
6. Puff printing.
7. High density printing.
8. Flock printing.
9. Silicon printing.
10. CMYK photo printing.
11. Mould printing.
12. Digital printing.

PIGMENT PRINTING:

Pigment printing is the process of transferring pigment dyestuff to the fabric by direct printing and abrasion printing method, which is generally applied to polyester knitted and woven fabrics, but can also be applied to natural fibers.



Figure10



Figure11

NON -PVC PRINTING:

At face value, non-PVC means there is no vinyl (polyvinyl chloride) in the product.

NON -PVC:

Non PVC print can be appropriately applied to cotton, Lycra and polyester fabrics. It can be unanimously applied to natural as well as synthetic fibers.



Figure12

PVC:

PVC coated fabric is strong and durable, making it ideal for use in a variety of applications. It is resistant to many chemicals and weather conditions, making it ideal for outdoor use.



Figure13

DISCHARGE PRINTING:

Method of applying a design to dyed fabric by printing a colour-destroying agent, such as chlorine or hydro sulfate, to bleach out a white or light pattern on the darker coloured ground.



Figure14

GLITTER PRINTING:

Primitively, glitter printing is a type of a transfer printing process. Glitter print makes use of the glittering granules called the glitter powder that after print are easily visible on the fabric.



Figure15

FOIL PRINTING:

Foiling printing also known as foil stamping is a process that involves a foil (think ink) and a metal dye which will have the image to be printed etched into it.



Figure16

PUFF PRINTING:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec luctus nibh sit amet.



Figure17

HIGH DENSITY PRINTING:

The High-Density Screen Printing Process of printing a T-shirt is the process in which we use a thick layer of emulsion to create a higher print.



Figure18

FLOCK PRINTING:

Flock Screen printing, also known as flocking, is the method of adding dye, adhesive, and countless tiny fiber particles (called flock) to the surface of a t-shirt or garment.



Figure19

MOULD PRINTING:

In-mould labeling - the application of labels to containers or bottles during the manufacturing process, places the printed label (paper or foil) inside the mould or containers before starting the moulding process. This fuses the product with the label and eliminates the need for labeling post production.



Figure20

PRINTING UNIT:

White house printing division has an annual printing capacity of 6 million impression. the unit equipped with a 6/9/12/14/16 color automatic printing machines and flock printing system. We are fully equipped with a pres printing setup wherein all screens required for all kinds of prints are internally prepared, screen coated, auto set, production. They have technical expertise for computerized color separation and film making .

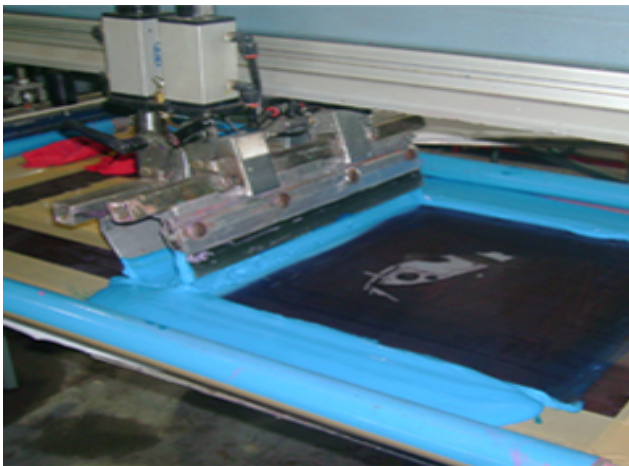


Figure21



Figure22

10 .EMBROIDERY

10.1.EMBROIDERY UNITS:

White house embroidery division has an annual embroidery capacity for 450 million stitches.it has state-of-art automated 9 Barbuda multi-head embroidery machines from Japan with 164 heads which can embroider up to 9 color. Exclusive 4 head embroidery machines for sampling. 2GMI laser cutter are connected to 80 embroidery heads for seamless and high quality applique embroidery. they have house expertise to create complication.



Figure23



Figure24



Figure25



Figure26

10.2.TYPES OF EMBROIDERY:

1. Satin stitch
2. Tatami stitch
3. Motif stitch
4. Program stitches
5. Photo embroidery
6. 3D embroidery
7. Applique work.
8. Split satin stitch.

9. Lurex thread filling embroidery.
10. Twill patch embroidery.

SATIN STITCH:

The satin stitch is a widely used embroidery technique worked in close, parallel rows. They are used to fill in or part of a design.



Figure27

TATAMI STITCH:

Tatami fill stitch consists of rows of run stitches and is suitable for filling large, irregular shapes. stitches are laid in row going back and forth across the shapes.



Figure28

MOTIFS STITCH:

A motif is a repeated design or image in embroidery that can be used as foundation for other stitches and patterns.



Figure29

PROGRAM STITCHES:

Embroidery software is software that helps users create embroidery design. while a large majority of embroidery software is specific to machine embroidery.



Figure30

PHOTO EMBROIDERY:

Embroidery is a time -intensive practice using heavy thread and varying stitches to construct an image. The combination of photographic imagery and needlework can be a good way of making image for artists interested in using image and textile.



Figure31

3D EMBROIDERY:

3D embroidery, also known as puff or foam embroidery, is a technique of garment decoration where the surface of a design is raised up off the fabric in order to give it a 3D look.



Figure32

APPLIQUE EMBROIDERY:

Applique is ornamental in which pieces or patches of fabric in different shapes and patterns are sewn or stuck onto a large piece to form picture or pattern.



Figure33

11. PRODUCTION PLANNING

11.1.PRODUCTION PLANNING:

- 1.yarn
- 2.bulk
- 3.fabric store
- 4.dyeing
- 5.knitting
- 6.spreading
- 7.cutting
- 8.sewing
- 9.ironing
- 10.quality checking
- 11.inspection
- 12.packing
- 13.shipment.

12.YARN STORE

12.1.YARN:

A yarn is a continuous strand of staple or filament fibers arranged in a form suitable for weaving, knitting, or other form of fabric assembly. Also a yarn is a textile product of substantial length and relatively small cross-section consisting of fibers with twist and/or filaments without twist.

12.2.TYPES OF YARN:

1. Spun and filament yarns
2. Cotton
3. Poly yarn
4. Boucle yarn
5. Wollen yarn
6. Novelty yarn

12.3. MENTIONED THINGS :

1. Count-10/1

- 2.Yarn-100%bce
3. Let no-IK9134cool
- 4.Excise no-2300045279
5. Net /cross wt-50.40/52.80

12.4.PROCESSES OF COTTON:

Physical properties:

- 1.Stable length
- 2.Microneire
- 3.Maturity co-efficient
- 4.Gimming
- 5.Opening
- 6.Spining
- 7.Blowroom
- 8.Carding
- 9.Drawing
- 10.Combed
- 11.Simplex
- 12.Packing.

13.FABRIC STORE:

They manufacture and supply cotton and blended knit fabrics, since 1990.they have also been nominated by reputed brands, for supply of fabrics to their sourcing factories. they produce wide range of fabrics from as delicate as 90 GSM to 450 GSM. they source following Grey melange & dyes yarns with stringent quality specification to knit various type of fabrics.

1. Organic cotton
2. Recycled cotton
3. Cotton slub
4. Cotton slub organic
5. Cotton flex
6. Cotton viscose
7. Cotton polyester
8. Cotton modal
9. Cotton wool
10. Bamboo cotton
11. Cotton elastane
- 12.Cotton sorona
- 13.Spun polyester
- 14.Polyester filament
- 15.Polyacrylic
- 16.Cotton nylon

- 17.Cotton hemp
- 18.Cotton Terence
- 19.Cotton viscose
- 20.Merino wool recycled polyester.

They have a strong R&D department wherein they develop new fabrics for our esteemed customers. Some of the Grey , melange and yarn dyed fabric types they produce for our in-house consumption and customers are

1. Single jersey
2. Single jersey plated
3. Single jersey popcorn
4. Single jersey quattro
5. Pique
6. Honeycomb pique
7. Fleece
8. Rib
9. Interlock
10. Flatback rib
11. 8 lock double knit structures.

DYEING

Most washing capacity of 50000 units, & garment dyeing capacity of 25000 units.

1.WASH TYPES:

1. Enzyme wash
2. Softener silicon finish
3. Stone wash
4. Distress wash
5. Optic wash
6. Oxy bleach
7. Crinkle wash

ENZYME WASH:

Enzyme washing or “bio stoning” is a textile manufacturing technique in which cellulose enzymes are applied to denim.as with traditional stone washing the intended effect is a faded appearance and softer feel.

SOFTENER SILICON FINISH:

Silicon softeners impart additional softness and smoothness on the surface of fabric and textile substrates. In addition to improved tear strength and shade enhancement, silicone softeners also ensure silky soft handle, moisture management.

STONE WASH:

Stone washing is a textile manufacturing process used to give a newly manufactured cloth garment a worn appearance. The process became popular in 1980's, as acid jeans gained popularity, however stone washing has roots going back to 1960 surfer apparel.

DISTRESS WASH:

When you per-purposefully rip, tear, and slash parts of the fabric before it's ever sold or worn. per-ripping and treating fabric in this way gives t-shirt distinctly worn – in and roughed up look.

CRINKLE:

Crinkle machine is used for squeezing the garments. First time they apply resin on pacific area of garment then squeeze the garment of that area at high temperature at pacific time. Crinkle is the process by this are squeeze the garments at fronts and back knee area.

DYEING QUALITY:

1. Pigment dyeing
2. Reactive dyeing.

PIGMENT DYEING:

Pigment dye is a post – production process that means your shirt already exists.it is not really dyeing because instead of dyes pigments are attached to the garment with the use of binders and locked into the surface of the fabric with ionic attachment instead of embedding into the fabrics.

REACTIVE DYEING:

Reactive dyes have good fastness properties owing to the covalent bonding that occurs during dyeing. Reactive dyeing is the most important method for coloring cellulose fiber.

KNITTING

White house knitting unit has monthly of capacity of 300 tons of fabric equipped with 45 circular knitting machines.

The range of fabrics include

1. Single jersey
2. Single jersey with lay in yarn
3. Pique
4. French terry
5. Interlock
6. Campus terry
7. Pullover rib
8. Single jersey/pique feeder stripes
9. Interlock pique

SINGLE JERSEY:



Figur34

PIQUE:



Figure35

FRENCH TERRY:



Figure36

INTERLOCK:



Figure37

CAMPUS RIB:



Figure38

PULLOVER RIB:



Figure39

14. SPREADING

Spreading is the process of super imposing lengths of fabric on spreading table cutting table or specially designed surface in preparation for the cutting process.

14.1.TYPES OF SPREADING:

- 1.manual spreading
2. computerized spreading.

14.2.MANUAL SPREADING:

- 1.In manual spreading, fabric is drawn from its package which if it is roll may be supported by a frame and carried along table where the end is secured by weights or by clamps.
- 2.The operation work back from the end, aligning the edge and ensuring that there is no tension and that there are no wrinkles.

PRINCIPLES OF MANUAL FABRIC SPREADING METHOD:

Manual spreading is done in the following way.

Tools:

Following tools are used for manual fabric spreading. They are:

1. Fabric Roll
2. Roll Stand
3. Sticks
4. Scissors
5. Manual Track (if needed)

Principles of Manual Fabric Spreading:

1. The fabric is pulled carefully from the fabric roll by hand.
2. Then, fabric is spread and cut to the appropriate length.
3. Then, process is continued as per requirement.
4. Mechanical devices (track) can be provided to facilitate UN-rolling and spreading operation, but the correct alignment of plies is controlled by human operation.



Figure40

14.3.COMPUTERIZED SPREADING:

Spreading machines carry the piece from the end of the spread, dispensing on ply at a time on the spreading.

Spreading machines may includes

1. A motor to drive
2. A platform on which operator rides
3. A ply counter
4. A turntable etc.

Fabric Spreading Machine

Automatic fabric spreading means the smooth laying out of various types of fabric according to specific length. Fabric Spreading Machine is one type of machine by which the smooth laying out of various types of fabric according to specific length automatically instead of pulled by workers. The objective of spreading is to place a number of plies of fabric that the production planning process has dictated, to the length of the marker plan, in the colors required, correctly aligned to length and width, and without tension. Although in certain sections, it remains necessary to cut single garments, in most of the cases rejects is the cause of single piece cutting.

Types of Fabric Spreader Machine:

There two types of fabric spreader machine:

- 1.Flat fabric spreader machine
- 2.Stepped fabric spreader machine

Parts of Automatic Spreading Machine :

- 1.Fabric setting bar
- 2.Bucket for roll fabric
- 3.Manual Handle for fabric feeding
- 4.Edge control sensor
- 5.Expander roller
- 6.Wind protection curtain
- 7.Cutter rail
- 8.Cutter device
- 9.Fabric sliding plat



Figure41

SPREADING OR LAYING

Spreading is the process of unwinding large rolls of fabric into long, wide tables in preparation for cutting each piece of a garment. The number of layers of fabric is dictated by the number of garments desired and the fabric thickness. Spreading can be done by hand or machine. Depending upon the fabric and cutting technology, up to 200 layers of fabric may be cut at one time. Fabrics that are more difficult to handle are generally cut in thinner stacks.

Spreading and cutting is smooth laying out of fabric in superimposed layers or piles of specified length. The cutting marker is laid on the topmost layer. The maximum cutting width is the usable fabric width minus selvedge or needle marks caused by stencil marks. Fabric utilization is the amount of fabric actually utilized in the marker as the percentage of the total fabric area.

14.4.TYPES OF LAY PLAN:

1. Half garment lay: it includes only half of the garment pieces,for example,one side left or right generally used for tubular fabrics.
2. Whole garment lay: it includes garment pieces,left are right. Generally used for open width fabric.

3. Single size lay: it is using all garment pieces of single one single size . disadvantage as the consumption of fabric is higher.

14.5.FORMS OF SPREADING:

1. One way cutting is when the fabric is laid the same way up with the same direction. The fabric has to be cut at the end of each ply.
2. The fact to face cutting is when the plies are laid in pairs face to face. The grain or pattern runs in the same direction.
3. Two way cutting is when plies are laid continuously from left to right and right to left without cutting at the end. Most efficient method of spreading. Cannot be used with grain restrictions or one-direction printed fabric.

14.6.MARKER MAKING :

Marker making is the process of determining a most efficient layout of pattern pieces for a style, fabric and distribution of sizes (source: Apparel Manufacturing, G lock and Kanzu). Factories those don't have a CAD system perform this process manually. In manual marker making to make an efficient marker one need time, skill and concentration. Now-a-day Marker making is mostly done by CAD systems which give accuracy, increase control over variables and reduces the time required in making markers.

1. Manual Method

The man performs it by himself using hands. It is a conventional system that requires more time.

1.FULL SIZE MARKER: Full size marker is made for production purpose.

2.MINIATURE TYPE MARKER: Miniature type marker is sometime made and its purposes are to plan or schedule and learn or study i.e. for planning and learning purposes.

Computerized Method:

This is the best method as it gives higher marker efficient. In this method, the pattern size, pattern pieces, grade rule, screening are fed to the computer and set in the memory which produces marker automatically. This method normally is a part of an integrated system which includes:

Advantages of computerized method over manual method

1. Suitable for large scale of production.
2. Marker efficiency is higher than that obtained in manual method.
3. Least fabric wastage.
4. Low production cost.
5. Marker can be printed out if necessary.
6. Grading of the pattern could be done automatically.
7. Few time assumption.
8. Disadvantages compared to manual method
9. Initial investment is high.

Difference between manual and computerized method of marker making:

Manual method	Computerized method
Suitable for small amount of production.	Used for large scale of production.
Marker efficiency is lower.	Higher
Initial investment is not high.	Higher
It is usually a slower method.	Quicker method
Production cost is high.	Low
Fabric wastage is high.	Low

BUNDLING:



Figure42

Bundling is the process of arranging garment components from the cut stacks after layer cutting and making a bundle with a number of garment pieces. Normally, using a rope or a fabric stripe (cuttings of fabric wastage) number of garment parts are tied together to form a bundle.

In bulk cutting, from a single lay more than 100 fabric layers are cut together. secondly, multiple garments (of the same or different sizes and colors) are cut from a single lay. Without sorting and bundling garment parts of the same size, same color, and from the same fabric layer, cuttings can't be sent directly to the stitching operator. If someone does there would be a mess. A factory can't make a garment as per standards. So cutting room needs to follow the proper bundling of cut parts.

Bundling is a common term used in the cutting room process. It is the way of counting pieces cut in the cutting room. Bundling helps the cutting department to handle cuttings and to store cutting inventory. They send cut parts to the sewing section as per the requisition received from the sewing floor.

15.CUTTING

Cutting is the process of reproduction shape of pattern pieces in the fabric during the production of garments.

The objective of cutting is to separate fabric parts as replicas of the pattern pieces in the maker plan. In achieving this objectives certain are precision of cut, clean edge, support of the lay and consistent cutting.

1. Manual cutting
2. Computerized cutting

15.1.MANUAL CUTTING:

Hand shears are normally used only when cutting single or double plies.

15.2. COMPUTERIZED CUTTING:

STRAIGHT KNIFE:

1. Vertical blade
2. Reciprocates up and down
3. Corner and curves can be cut accurately.
4. Blades length 6 to 14 inches.

15.3.CUTTING :

1. Fabrics cutting-four members
2. Specific cutting
3. Manual
4. 40 pieces
5. Checking.

FUNCTIONS OF CUTTING DEPARTMENT IN GARMENT INDUSTRY:

The cutting department is responsible for cutting fabrics for the garment orders and feeding the sewing department with cuttings. The cutting department's capacity is planned based on the daily feeding requirement of the sewing lines. The cutting department is set up with a cutting department head, cutters, spreaders, cut parts quality checkers and helpers for sorting, ply numbering and bundling.

The major activities and functions of the cutting department are explained in this post.

1. Take fabric from the fabric store:

The cutting department gets a cut order plan from the production manager. According to the cut plan, the cutting in-charge generates a fabric requirement sheet or requisition slip to the fabric store to issue fabrics.

The fabric receiving process from the fabric store may be done on the same day of the cutting or one day before the cutting schedule.

2. Relaxation of fabrics:

Knitted fabrics require relaxation before cutting. After receiving the fabric from the fabric store, the cutting department opens the fabric from the fabric roll and lays it on the table for relaxation for some hours before cutting. Factories also relax fabric in the fabric store overnight after opening the fabric rolls. This process helps in controlling fabric shrinkage.

This activity is not required for all type of fabrics.

3. Cut order planning:

The cutting master plans the number of markers they need to prepare, the size combination to be set for each marker and the number of plies to be laid in each marker.

4. Fabric Spreading/layering:

In mass production, multiple layers of fabric are cut at the same time. So spreaders lay the fabric on a cutting table as per total marker length. The layer height is kept up to a certain inch.

5. Planning markers:

The cutting master plans marker ways, marker lengths and the numbers of plies to be laid in each lay.

6. Making markers:

This is a process of making an outline of garment patterns on the lay for cutting garment components. After layering, the marker paper is laid on the top of the layer. Those factories that don't have CAD markers make markers manually using paper patterns.

7. Cutting fabrics:

After making the marker, garment patterns are cut and taken out from the layer. Various technologies are used for cutting fabric layers, such as straight knife cutting, band knife machine cutting and a computer-controlled automatic cutting machine.

8. Sorting, bundling and numbering of garment plies (parts):

After cutting the fabric, layers are sorted size-wise and colour-wise. Each ply is numbered using stickers. Bundles are kept on inventory tables, before these are sent to undergo the next process.

9. Inspecting cut components:

To maintain the cutting quality, standard cutting components are checked randomly by quality checkers. If defective components are found, they replace those defective parts. Details of cut part inspection are explained in Chapter 10.

10. Sorting printed and embroidery panels:

As per order requirements, printing and embroidery is done on cut panels. Size-wise sorting is done after receiving printed and embroidered panels. The checking of printed and embroidered panels is also done by the cutting department

11. Re-cutting panels:

Re-cutting is done for garment components that require to be replaced in bundles. Re-cutting requests are received from the sewing department for defective garment parts. Re-cutting is also done for block panels cut for the printing and embroidery processes. After receiving garment panels from the printer or embroiderer, these panels are reshaped.

13. Fusing garment components:

Fusing in garment components is done to stiffen parts of a garment. If needed, fusing is done at the cutting section (e.g. fusing of the collar and cuff components of formal shirts).

Different Types of Fabric Cutting Machines :

Fabric cutting machines which are vastly used in the apparel manufacturing industry have pointed out in the below:

1. Straight knife cutting
2. Band knife cutting
3. Round knife cutting
4. Notches cutting

1. Straight Knife Cutting Machine:

Features of Straight Knife Cutting machine

1. Here, the knife is driven by using electric power.
2. Straight edge is mostly used in the straight knife.
3. Here, blade stroke varies from 2.5 to 4.5 cm.
4. During cutting, the grinding wheel helps to sharpen the cutting knife.
5. Blade edge: straight edge, wave edge, saw edge, serrated edge



Figure43

2. Band Knife Cutting Machine:

Features of Band Knife Cutting Machine

- 1.This type of knife consists of a series of three or more pulleys that are powered by an electric motor.
- 2.The band knife blade is normally narrower than the straight knife.
- 3.Here, the cutting knife is endless in shape and also flexible.
- 4.It is one kind of sawmill cutter.



Figure44

3. Round Knife Cutting Machine:

Features of Round Knife Cutting machine

- 1.Some key elements of round knife fabric cutting machines are base plate, electric motor, circular blade, etc.
- 2.The band knife blade is circular.

3. Band knife blade diameter ranges from 6 to 20cm.
4. This type of blade is driven by electric power.



Figure45

5. Notcher Cutting Machine:

Features of Notcher Cutting M/C:

1. It is a special type of cutting machine.
2. It is used in special cases.
3. The notch can be made in V-shape or U-shape.
4. It is used to cut a notch in the edge of some important components.



Figure46

16. SEWING

White house sewing division have 3 factories with 41 lines 1650 work station with a monthly capacity of 1.2 millions garments. they use latest technology in all operation from pattern designing to cutting to packing. they have installed state -of-the-art CAD machines for pattern design, automatic fabric spreading, auto cutter specialized sewing machines among others. Factories are humidity controlled thereby creating a comfortable environment for work.

They use industrial engineering to study and reduce the work flow and the method flow.



Figure47



Figure48



Figure49



Figure50



Figure51



Figure52

15.1.VISUAL DEFECT:

1. Disassembler mark
2. Down placket visual
3. Drop needle
4. Broken stitch
5. Cut stitch
6. Damage button hole
7. Looseness at top placket
8. Oil stain
9. Open seam
10. Fabric rules
11. Main label
12. Slant logo
13. Ropping
14. Print variation
15. Skip plocket
16. Trimmes cut.

17. PACKING

17.1. QARANTINE AREA:

Metal detector-only authorized personnel should use the metal detector. All metal components must be non-ferrous to be able to passed through the metal detector as near to the end of production as possible- preferable on finished goods after ticketing.

17.2.MENTIONED THING ON CORTON BOX:

Supplier	Reference	Buying order	Programing
Whitehouse	J24859	3278868	No of package total
colour	Children worldwide fashion		Total quantities
Net weight	size	Gross weight	

Packing section:

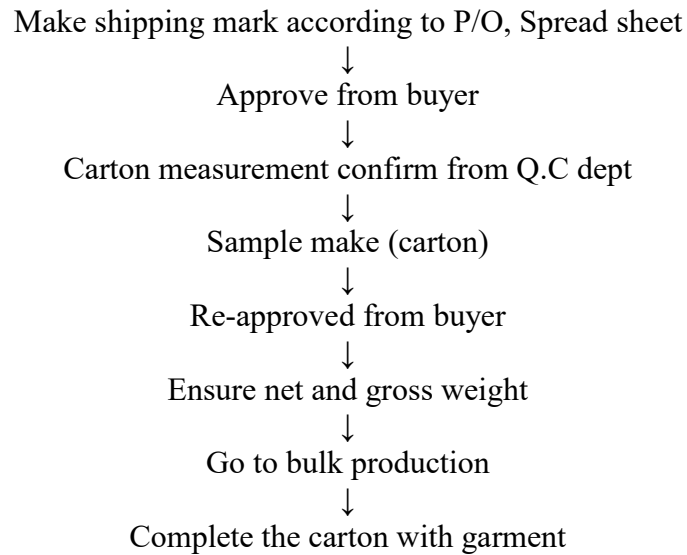
Packing is part of garment finishing. It is done by the requirement of the buyer. Various types of packing accessories are available in the storeroom such as poly bag, packing board, tissue paper, hanger, scotch tape, gum tape, carton, etc.



Figure53

Flow Chart of Packing Section in Garment Industry:

Process sequence of packing section is given below:



SHIPPMENT:

Logistics services for garment and textile products include:

1. Freight Shipping of clothing, fashion, and apparel
2. Air transport of clothing, fashion, and apparel
3. Land transportation from factory to port and retailers
4. Direct consolidation services within major routes that save 80% of your shipping cost.
5. Shipping with garment boxes/ flat pack method
6. Shipping with garment on hanger (GOH).

MY WORK:

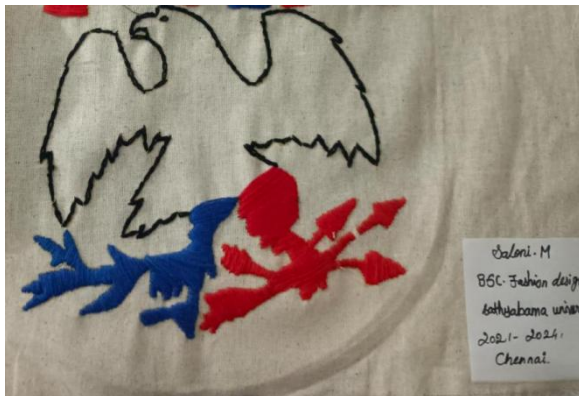


Figure18.1

CONCLUSION

This internship taught about the manufacturing processes used in the fashion industry, which is at the cutting edge of design, innovation, and large-scale production. This program helped to gain knowledge about the casual wear industry's raw material sourcing, production, quality control, and final product. It offered knowledge on premium clothing of the finest quality in the global market for casual wears. The internship program has shed light on the development. Overall, this internship program gave a lot of knowledge about the structure of the fashion industry, how it operates in accordance with moral principles, and how it contributes to the world.

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