

**Report On:**  
**Application of composite textile at**  
**Fakhruddin Textile Mills Limited**

**By**

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An internship report submitted to the Executive Development Center, Brac Institute of Governance and Development (BIGD), Brac University in partial fulfillment of the requirements for the degree of Post Graduate Diploma in Knitwear Industry Management (PGD-KIM)

**Executive Development Center, BIGD**

**Brac University**

**2020**

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## **Declaration**

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

### **Student's Full Name & Signature:**



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**Mohammad Zahirul Islam**

Student ID : 19281147

### **Academic Supervisor's Full Name & Signature:**

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**Md Shakil Ahmed**

Senior Research Associate

Brac Institute of Governance and Development (BIGD),

Brac University

## **Letter of Transmittal**

**Md Shakil Ahmed**

Senior Research Associate

Brac University

Brac Institute of Governance and Development (BIGD),

66 Mohakhali, Dhaka-1212.

Subject: Submission of internship report.

Dear Sir,

With due respect, it's highly state that I am the student of BRAC University have prepared my internship report on Fakhruddin Textile mills Limited. Here I have tried my level best to manage all informative data & analysis according to the factory practical activities. All data has included here contains most of the important information of facility practices. I am really thankful to you for your support & guideline. Hopefully this report will be making you pleased.

I hope you will assess my report considering the limitations of the study.

Sincerely yours,

Mohammad Zahirul Islam

Student ID: 19281147

Executive Development Center, BIGD

Brac University

Date: 20.04.2021

## **Non-Disclosure Agreement**

It's ensured that Mohammad Zahirul Islam student of Post Graduate Diploma in Knitwear Industry Management, BRAC University successfully completed his internship program in Fakhruddin Textile mills ltd. In this internship program he was supervised by me (Md. Abu Bakar Siddique). During this internship program he is very serious about learning's new thing. During internship we don't faced any kind of problems by him. The authority of Fakhruddin Textile mills ltd. is very happy about his performance and I wish him good luck and a very successful life. The internship program started for the Post Graduate Diploma Knitwear industry management. For any student this program is very helpful for his professional period to earn knowledge. This industrial report is for the university requirement. The subject of this report is "Application of composite textile". This report is based on Fakhruddin Textile Mills Limited. All description about Fakhruddin textile is already clear in this report.

Fakhruddin textile mills is a sister concern of **Urmi group**. This group is well renowned group in RMG sector. Fakhruddin Textile Mills is export oriented factory. They export 100% readymade garments. This readymade garment they export various country especially in European countries & USA. Manpower is high tech for this reason they do critical readymade garments. Especially they made ladies jacket, T-shirt, joggers & kids' item. Fakhruddin textile mills have a lot of vision about garments issue. They want to explore their business for increasing job area. Their Technical team is very strong. For this reason order quantity is increasing day by day. I am very lucky to be member of Urmi group.

**Student's Full Name & Signature:**



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**Mohammad Zahirul Islam**

Student ID- 19281147

**Industry Supervisor's Full Name & Signature:**



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**Md. Abu Bakar Siddique**

Deputy General Manager, Dyeing  
Fakhruddin Textile Mills Ltd.

## **Acknowledgement**

At first, I am grateful to Almighty Allah for His blessings which was helped me to finish this report successfully. I also want to express my gratitude to The Creator for enabling me to complete this internship Report within course time.

Then I am highly delighted to express my regards and gratefulness to honorable Associate Md Shakil Ahmed for providing the chance to complete my internship and for proper guidelines as if I can complete the project work in Fakhruddin Textile Mills Ltd. For his continuous encouragement and inspiring guidance, I have achieved this enrichment thus it was outstanding for me to fulfill all steps properly.

I also want to express my sincerest gratitude to the Management, Administration & Personnel of Fakhruddin Textile Mills Ltd. for their kind assistance.

Cordial thanks goes to HoSBU sir (Head of Strategic Business Unit) “**Md. Ruhul Quddus**” and also Deputy General Manager, Dyeing ‘**Md. Abu Bakar Siddique**’ sir of Dying for their excellent co-operating during the period of my training.

I would also like to give thanks to all executives, Operators and worker for their sincere support. Above all, I would like to acknowledge our all honorable teacher of our university and particularly of BIGD (PGD-KIM) Department for their kind inspection and help.

Finally, I would like to acknowledge that I remain responsible for the errors which remain in this report.

## **Executive Summary**

Fakhruddin Textile Mills Ltd. is the mother factory of Urmi Group. It was a great chance for me to do my internship in this organization. Fakhruddin Textile Mills Ltd is a comprehensive manufacturing and exporting company of Bangladesh. It comprises the ultra-modern plants related to garment industry, such as independent knitting, dyeing, sewing, finishing and packaging with sufficiently supportive backward linkage facilities. In this age, Bangladesh is flourished with RMG sector where this division has its immense contribution.

Among all of these facilities Wet processing department (Dyeing) plays an important role. As a part & executive of this department I have to play an important role of activities. According to the requirement & dyeing planning, batching department arrange the fabrics. From receiving the fabric to machine planning, process setup, process follow up, ensuring the fabrics shade & quality all activities have to be done as a daily job responsibility. Inter departmental communication & audit work also is the part of my activities.

## List of Acronyms

BIGD	BRAC Institute of Governance and Development
PGD	Post Graduate Diploma
KIM	Knitwear Industry Management
FTML	Fakhruddin Textile Mills Limited
IE	Industrial Engineering
RM	Raw Material
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
ATD	Actual Time of Departure
ATA	Actual Time of Arrival
HRD	Human Resource Development.
WH	Warehouse
CP	Critical Path
PSD	Production Start Date
PCD	Product Cutting Date
SSD	Sewing Start Date
SAH	Standard Allocate Hour
AQL	Acceptable Quality Level

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# Chapter-1: About Organization

## 1.1 Overview of the Industry:

Urmi Group is very best quality-oriented group in Bangladesh. Lean based factory & try continues improvement of his own working process. We have no compromise about any quality issue for readymade garments. For this reason, we are top at this moment. Production end we have lots of supporting stuff in urmi group. For buyers follow-up have separate merchandising team & quality team when run production.

Urmi Group have 5 sister concern

1. URMI SHIPPING COMPANY LIMITED
2. URMI GARMENTS LIMITED
3. FAKHRUDDIN TEXTILE MILLS LIMITED
4. ATTIRE MANUFACTURING CO. LIMITED
5. UHM LTD
6. DEMRA GARMENTS

Urmi group 1<sup>st</sup> business started in year of 1955 Fatulla brick field. In 1958 they started business of stoneville engineering ltd. In 1974 urmi navigation ltd established. In 1979 urmi shipping company limited established. Urmi group came to RMG sector in 1984. Basically they 1<sup>st</sup> started readymade garments. In 1994 they started attires manufacturing Co. ltd. They already had set up garments business after that they came to textile business. In 2002 they 1<sup>st</sup> set up a textile unit named fakhruddin textile mills ltd. at first they only did knitting dyeing & finishing. After 4 years in 2006 they started readymade garments sewing section. Day by day they opened washing & printing unit also. So now fakhruddin textile mills is fully composite mill for all unit. After established fakhruddin textile mills ltd. in 2015 they open new garments UHM ltd. It is green factory & established in Narayangonj EPZ area. In 2016 they started new garments business. They established seamless unit. This is fully new concept for readymade garments. At last they opened Agro Saal Ltd in 2019.

At the age of 40 Mr. Shamsul Alam started his business. 1<sup>st</sup> readymade garments industry is formed by Mr. Shamsul Alam. He became a good entrepreneur day by day. From 1995 Mr. Asif Ashraf and Mr. Ashfaque Ahmed take care of urmi group. Now Mr. Ashfaque Ahmed is

Chairman, Mr. Asif Ashraf is Managing Director, Mr. Faiaz Rahman is Director, and Mr. Mir Ashraful Hossain is Chief Operating Officer

**1.1.1: Key Facts**

1. Daily Knitting Capacity 35 Ton
2. Daily Dyeing Capacity 38 Ton.
3. Garments units make 160000pcs complete garments regularly.
4. Total employs have 10000 over.
5. Total investments exceed 60 million US dollar.
6. In 2019 total annual turnover 173 million US dollar
7. Oeko-tex & GOTS certificate have.

**1.1.2: Manpower of Urmi group:**

<b>UNIT</b>	<b>OFFICER&amp; STAFF</b>	<b>WORKER</b>	<b>TOTAL</b>
URMI Garments	361	1295	1656
Fakhruddin Textile Mills Ltd.	732	4186	4918
UHM LTD.	315	1778	2093

**Table 1: Manpower Ratio**

**1.1.3: Customers:**

1. Puma
2. M&S
3. Ernstings Family
4. Auchan
5. GU
6. Tchibo
7. Full Beauty etc.

**1.1.4: Compliance Standard**

Compliance as per:

- BSCI
- S.Oliver, Puma, H&M, Decathlon, Tchibo, KGS, Auchan, Otto, Toray approved our facility as per their own COC.

**1.1.5: Environment:**

1. OEKO-Tex, GOTS, OCS, RCS certified

2. Anaerobic Biological ETP having a capacity of 4,000m<sup>3</sup> per day
3. Sky lights to harness sunlight
4. Exhaust Gas boilers
5. Heat absorption Chiller
6. Servo Motors replacing clutch motors
7. Low liquor ratio machine (1:4)

## 1.2 Vision & Mission:

As part of our continuous improvement (CI), we have identified our guiding lights for the future. We believe having clarity on the purpose and mission of the company will help us to reach our goals more conclusively. Urmi Group Purpose, mission and values “IMPACT”. (Integrity, Mutual Trust, Passion for Excellence, Agility, Customer Focus, Teamwork & Co-operation)<sup>[5]</sup>

## 1.3 Goals & Objectives of Urmi Group:

1. Urmi group 1<sup>st</sup> goal is to improve production management & upgrading quality management procedure.
2. To improve a good relationship between supplier & manufacturer.
3. To train up worker & stuff for development of quality of life.

## 1.4 Management:

Urmi Group has a strong, dedicated, sincere, intellectual management team.



They have management policy, objectives, organizational structure etc.

The Top Management is given bellow:

**Figure 1: ORGANOGRAM**

### Management Responsibilities:

Managing Director & others Director are worked in quality management policy. They are directly to implement quality ensure resources system under Quality Management System (QMS)

Managing Director and Directors are directly working about the next order & forecast. They also make a plan to increase business growth. They also make a good relation internally to communicate with their selves. Also responsible for preparing business plan and ensuring adequate internal communication. Managing Director, Directors, Chief Operating Officer, General Manager, Managers, and head of departments are responsible for business plan & to achieve good quality also.

### **1.5 Products produced by the Industry:**

All other export item readymade garments are the main item for export. Bangladesh have already established market. Urmi group is worked in basically knit items. Urmi group products line have:

1. Polo shirt
2. Shorts
3. Trouser
4. Joggers
5. Jacket

### **1.6 Process Flow Chart in Textile**

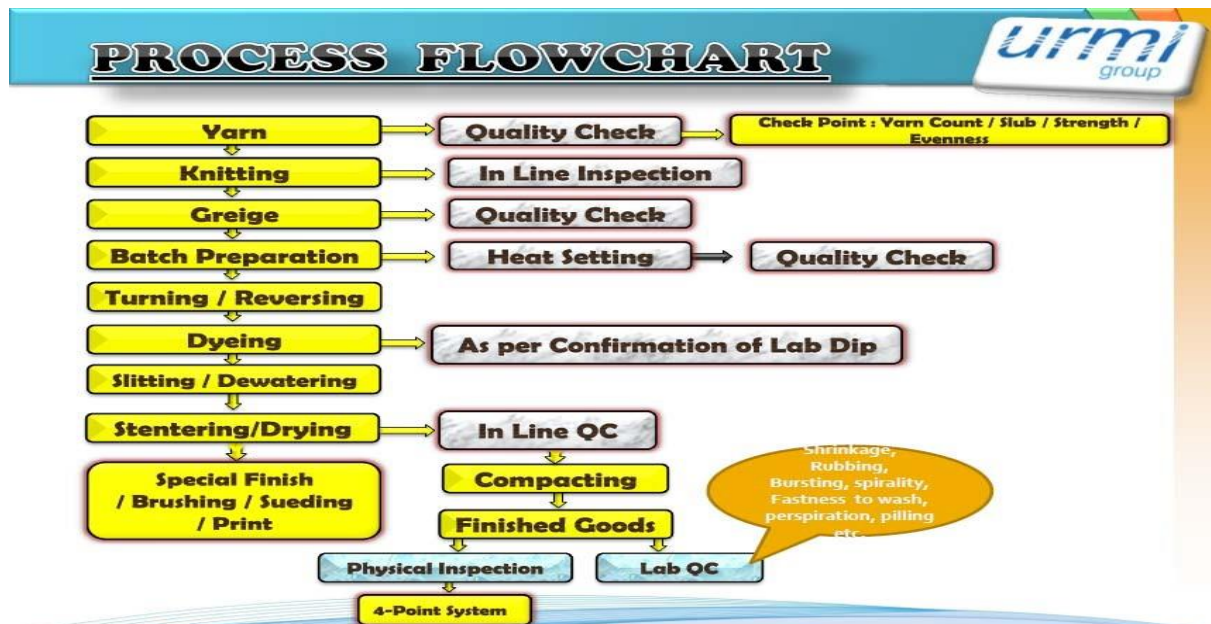


Figure 2: Process Flowchart of Textile

## 1.7 Product Division:

Urmi Group mainly produces Men's, Ladies', Boys', Girls' and Infant garments.

Men's	25%
Ladies	45%
Children (Boys' & Girls')	20%
Infant	10%

**Table 2: Product Ratio**

## Chapter 2: Description about task accomplishment

What is Textile: Textile, any filament, fiber, or yarn that can be made into fabric or cloth, and the resulting material we are used. During this process, a textile factory starts its business from yarn producing which ends in ready-made fabrics that are deliverable to cutting to produce garments.

Followings are the sections that are required in Textile which will be described briefly in following pages.

### 2.1: Yarn:

Textile yarn is a strand of natural or synthetic fibers or filaments. A fiber is a small short piece of hair. A filament is a long strand of a single substance. In textile yarn, individual fibers or filaments are wound together to make threads.

Types of yarn:

Yarn can be classified into two main categories:

1. Spun or staple yarn
2. Filament yarn

According to the spinning technology used: the spun yarn can be classified into two groups:

1. Ring frame yarn
2. Open-end yarn

1. Ring Frame Yarn: The yarn being spun by the ring frame machine is called ring frame yarn.

It can be further divided into the following categories:

- a) Carded yarn
- b) Super carded yarn
- c) Semi-combed yarn
- d) Combed yarn
- e) Super combed yarn
- f) Compact yarn

- Carded Yarn: In this yarn ordinary carding process is done and the yarn is manufactured on the ring frame machine. This yarn has short-staple fibers in it. It contains dirt, broken seeds too. It has poor strength and yarn regularities.
- Super Carded Yarn: This yarn is produced through a special carding process and the yarn is manufactured on the ring frame machine. This yarn contains less dirt, broken seeds, and yarn regularities in comparison to carded yarn. It shows better strength and lower hairiness than carded yarn.
- Semi Comber Yarn: In this type of yarn, the combing process is done partially. The yarn is manufactured on the ring frame machine. Short fibers, dirt, and broken seeds are removed partially from the yarn. Better evenness, hairiness, and strength are achieved in this yarn.
- Fully Combed Yarn: In this type of yarn, a perfect combing process is adopted. The yarn is made on ring frame yarn. Most of the short fibers, dirt, and broken seeds are eliminated from the yarn. This yarn shows excellent strength and evenness. It has low hairiness in it. It shows a good lusters and soft feel.
- Super Combed Yarn: In this type of yarn special combing process is adopted. The yarn is manufactured on the ring frame machine. In this yarn, short fibers and dirt are removed completely. Broken seeds are removed up to optimum level. Fibers are straightened up to maximum level. It has excellent strength, evenness, and hairiness levels. This yarn contains minimum yarn irregularities.

- **Compact Yarn:** A special compact spinning device in the ring frame is used to manufacture this type of yarn. This yarn shows the best strength, evenness and feel among all spun yarns. It has no short fibers and dirt. It has the best level of hairiness in it. It has the lowest level of irregularities among all spun yarns.
- **Open-end Yarn:** This yarn is manufactured on an open-end machine (rotor spinning machine). The yarn is directly spun from a sliver obtained from carding. Many processes of spinning are bypassed in this method of producing the yarn. Therefore yarn obtained from this process is cheaper than ring frame yarn. This type of yarn contains short fibers. It has poor strength. It contains more dirt and broken seeds than any ring frame spun yarn having the same mixing of fibers. It shows the poor level of hairiness, luster, and hand feel. This type of yarn contains many irregularities.

### **Filament Yarn:**

“The yarn consisting of long continuous filaments or fibers either twisted or only grouped together is called filament yarn”. It may be man-made or synthetic.

Filament yarns can be classified as follows:

1. **Monofilament Yarn:** “The yarn consisting of only one long continuous filament is called mono filament yarn”. It generally has a single coarse filament in it. This filament has good strength normally.
2. **Multi Filament Yarn:** “The yarn having more than one long continuous filament together is known as multi-filament yarn”. More than one filament is grouped together. These filaments may be twisted or punched to prevent the fraying of filaments. Sometimes filaments are grouped together only.

### **Yarn Count:**

Count is the numeric system to express yarn thickness. There are two ways to express yarn count. These are:

1. Direct System
2. Indirect System.

### **2.2: Yarn Store:**

Yarn are kept based on their properties such as Yarn count, yarn type, Date of receiving. After receiving yarn from supply chain team, store team ensures that actual yarns are there

without any mismanagement. Then Qty wise rack allocation is done. A bin card is also attached to the rack so that everyone can find easily the required yarn. Also a software based location tracker also maintained to get updated about the yarn location. When yarn store team receives a yarn requisition program from knitting section, they usually check in the server about the yarn availability and find out yarn location. If everything ok, then required yarns are given as per instructed time in requisition to the knitting department. Server also keep updated in each transaction to avoid data mismatching. <sup>[1]</sup>

### **2.3: Grey Store:**

Grey Store is the place where Knitted fabrics are kept as per order, fabrication, fabric type and date of Knitting. After QC check of knitted fabric, RFID is made and sticker is attached in fabric roll. Then fabric roll is handed over to Grey Store concern.

A grey store concern firstly check the order then find detailed order status. If this is running order, then fabric is kept along with previous fabric. If the fabric is for totally new order, then firstly rack is allocated for the order and then fabric is kept in the rack. In the meantime, ERP is updated and manual tracker is also updated. Usually Grey store receives fabric requisition from batch section prior to dyeing. After getting the requisition, they check the fabric availability, fabric location and fabric required time. Then a fabric preparation plan is made and fabric is kept in the grey store super market. On the other hand, Grey store also does many things like advance heat setting, advance pre-treatment, and advance relaxation. In this case, they get a plan from planning department and work on that based on their capacity.

### **2.4: Batch:**

Batch is a sub-section of Dyeing. Once dyeing plan is found from Planning department, they provide batch requisition to grey store. Also they collect fabric from grey store super market and do nuzzling as per dyeing machine requirement. Moreover, in case of bag sewing requirement, they do this process before to dyeing.

**Nuzzling:** In dyeing machine, nuzzling is most important thing which plays a vital part in even dyeing. Inside dyeing machine, fabric is moved through a reel which called nozzle. There is a gate in every nozzle where fabric can be entered in dyeing machine.



Say, there is 10 nozzles in dyeing machine. And the batch weight is as below.

Total weight 1500 Kg. Single jersey 1200 kg and 1x1 Rib 300 kg.

Then fabric will be divided into same 10 units and each unit for each nozzle.

So, in every nozzle, there will be 120 kg S/J and 30 kg Rib. This operation is done by batch section. After nuzzling, they sew all rolls considering nozzle quantity and provide to dyeing.

## **2.5: Dyeing:**

### **Dyeing**

Dyeing is the application of dyes or pigments on textile materials such as fibers, yarns, and fabrics with the goal of achieving color with desired color fastness. Dyeing is normally done in a special solution containing dyes and particular chemical material. [2]

### **Dyeing Method:**

Dyeing can be done in 2 methods.

- Exhaust/discontinuous dyeing method,
- Continuous dyeing method

- **Production Parameter**

- While dyeing is done some parameter are to be followed for standard dyeing purpose.

They are

- Fabric construction  Fabric GSM  Blended Fabric  Fabric quality  Dye bath capacity  Dyeing M/c capability
- Dye bath liquor ratio  Water Elements  Fabric pH  Dye bath pH  Dozing Time  Run Time

- **Dyeing faults**

1. Uneven dyeing
2. Dye spots
3. Pilling
4. Soda spot

- **Washing**

Washing effect is special requirement of buyer. If needed then go to wash effect and others quality improvement etc. <sup>[3]</sup>

## **2.6: Finishing:**

Finishing is one of the most important section in textile. Final quality of fabric is ensured here.

→ After unloading a dye batch, one test roll is finished to check final quality after finishing. Here, below parameters are checked.

1. Shade
2. Hand feel
3. Aesthetic effect
4. Absorbency
5. Smoothness
6. Hairiness
7. Color fastness
8. Dimensional stability etc.

If the test roll meets all standard, then full batch get the permission from QA dept. for finishing.

Different types of special finishes are given in finishing section. Such are described below: <sup>[5]</sup>

### **Dyeing Finishing**

Here the finishing section is just beside the dyeing machinery. As most of the finishing is done after dyeing that's why it's situated just beside the dyeing section. We will know in detail about the finishing section here. <sup>[4]</sup>

### **Physical lab**

Physical lab main of the part to defined as physical and chemical property of buyer requirement. Physical lab test done chemical and physical and ok test report then go for nest process. Given some of common test,

## **Chemical Test**

In the Lab there having some chemical test which is done according to the Buyer requirement and demand. Some of them are done chemically and they are

- Colorfastness to Perspiration
- Colorfastness to Acid
- Colorfastness to Alkali

## **Physical Test**

There have some physical tests also which is demanded by the buyers. In lab there have some physical testing Facilities also. They are

- Colorfastness to Rubbing
- Colorfastness to Light
- Dimensional stability test
- Strength Test

### **2.7: Quality Assurance:**

Quality assurance is the final department of textile before delivering fabric. Here final quality is ensured before giving permission for delivery of fabric to garments.

#### **2.8.1: Inspection system:**

There are some methods to declare fabric quality. 4 Point system for fabric inspection is widely used in apparel industry for fabric quality inspection. To use this system we have to know following things.

1. Fabric inspection method or preparation
2. Criteria of giving penalty points based on defects and defect length.
3. Calculation method of total penalty points for total defects found in a fabric roll or than
4. A Check sheet or format for recording data
5. Knowledge of different types of defects (how a defect looks and its appearance)

Criteria for giving penalty points

In the following table the penalty evaluation points has been given for different length of fabric defect and dimension of holes.

### **2.8.2: Calculation of total points per yards**

In 4 point system fabric quality is evaluated by unit **points/100 sq. yds.**

Points / 100 sq. yd. = (Total points in roll \* 36 \* 100)/ (Fabric length in yards \* Fabric width in inches)

normally fabric roll containing 40 points per 100 square yard are acceptable.

- Ensures SOP maintain properly by all section
- 5s establishment in factory.
- On time delivery ensure
- Rejection analysis and show management the progress of quality
- Training to the workers and improve their quality
- Keep all documents as per buyer requirement.

## **Chapter 3: Critical assessment of Internship work**

### **3.1 Application of Generic and Industry-specific courses during internship**

During our nine-month long academic period we had both Generic and Industrial courses. By accomplished this course I am able to acquire a deep knowledge and understanding about organizations behavior, complexity and Industrial activity.

#### **Application of generic courses during internship**

At PGD-KIM course we had 3 consecutive semester which is of three months duration. Each course is a graph by several unique thoughts & studies, especially interconnected with the application also have a direct impact on the next course including the internship program. Our first semester was designed for interpersonal skill development for both the personal & professional arena. In the generic course, we had four different subjects, as follows-

1. **KIM 101:** HR Skills and Competencies.
2. **KIM 102:** Analytical Skills and Competencies.

3. **KIM 103:** Communication Skills.
4. **KIM 104:** Business Operation Skills.

By accomplished these four generic courses we are able to acquire accumulated theoretical knowledge, skill & experience which will help us in the future to lead the Knit Industry as top-level management. We will able to figures out challenges & difficulties also how to deal with them.

## **HR Skills and Competencies**

1. **Level 5 leadership:** Bangladesh is the 2nd largest exporter in the global apparel market. In this situation, leadership is what is most needed to move an organization towards its specific goals. Leaders make people committed, productive through styles to excel in competition. In this course, we learned about Level 5 leadership. By applying this method in our organization, we are able to train highly capable individuals by makes productive contributions through talent, knowledge, skill, and good work habit.

2. **Teamwork:** Towards sustainable employee performance teams plays a vital role. During this course, we are able to learn the importance of teamwork. In our organization now, we emphasize teams rather than individual “stars”. By collaboration within the team now are able to solve difficult problems. Now we are able to do more brainstorming & it helps us to find out various opportunities & help to exchange ideas.

3. **Motivation:** Most often employees leave a company because they don’t feel they are being recognized. Motivation the driver to put the necessary effort and action towards work-related activities & recognition. During this course, we learned about the Hierarchy of Needs by A. Maslow. Using this theory now we are able to identify below the label of needs

1. Physiological needs.
2. Safety need.
3. Belongingness needs.
4. Belongingness needs
5. Self-actualization needs.

Considering the label of need now we are able to motivated employees based on intention, intensity, and perseverance.

4. **HR values:** Every organization has some culture & values. During this course, we are able to know 8 major values that the HR department is fully abide-

- Embrace innovation.
- Respect for people.
- Integrity.
- Boundary less enterprise.
- Deliver bottom line result.
- Delight our customer.

By applying these values in our organization now we are able to maintain a great relationship with the workers, employees, stakeholders.

### **Analytical Skills and Competencies**

It was an accumulated course in a very short duration of time. Here are the most important skills applied from analytical skills and competencies. I also applied them during the internship program-

- To find out the reliability of an average data to take a proper decision I used variability.
- To compare two different products' future probability & variability I used the coefficient of variation. The coefficient of variation is more useful for comparing the variability of two or more series when the units of measurements are different.
- When productivity increases in FTML accordingly expenditures increase. To take proper decision & find out the impact I used correlation. It helps me to take rejection challenge.
  - As a part of the scientific research method we learned about hypotheses & research questions, it helps me to analyze the different situations.

### **Communication Skills**

During this course, we are able to learn how to develop interpersonal skills. Also, we are able to learn some academic terms like- job application strategies, presentation skills, participation in and chairing of meetings, policy and proposal writing, Memo, letter, email, reports in a professional way which we can use in our regular corporate life. Below are the most critical skills I used during my internship period-

- I Identify communication styles based on situation and atmosphere. Managed multidimensional communication in the office during the internship.

- To overcome the barriers of communication in the organization at the professional level I demonstrate the knowledge of communication skills & establish a quality relationship with employee, worker & stockholder.
- By improving my listening and questioning skills now I am able to collect vast information which is helped me to improve my analytical skills & that helps me to take the correct decision.
- I apply effective communication, like-

### **Business Operation Skills**

It was a huge course to cover in a very short duration of time. These are the most important skills for Business Operations that I apply during my internship program.

- **Management Function and Feature:** During this course, we learn about management functions and features. As a part of my internship program, I work in a managerial position at FTML. I had to manage a big operation from order negotiation with the buyer to shipped finished goods as specified by the buyer including after-sales services. To run the entire activity in a professional manner to protect the company and buyer's interest as well, to manage the whole activity management function and feature give me the right direction.
- **Organizational Structure and Strategy:** As a PGD-KIM student during this season, we trained to design & describe operational flow charts. As professional at first I analyze the essential element of the macro environment. On this process I will follow A PESTEL analysis. A PESTEL analysis is a framework or tool used to analyses and monitor the macro-environmental (external marketing environment) factors that have an impact on an organization.
- **Marketing, sales and customer service:** The marketing mix is one of the important topics in this course. The marketing mix is the process of designing & integrating various elements of marketing in such a way to ensure the achievement of the organization's objective. Due to this pandemic situation, FTML faces various difficulties. Based on my knowledge I acquired during class, I share some important points with FTML to grab the new opportunity.
- **Communication and negotiation:** Every product has to pass business life cycle.

We can divide this life cycle into four-stage. Growth, maturity & decline different Stage in its They are introduction

- Leadership.
- Problem solving.
- Financial management etc.

The whole managerial work is distributed in some departments and some sub-departments as well. During the internship, I worked with them closely to know how they are working. Also, try to accumulate my knowledge with them with better output.

### **Application of industry specific courses during internship**

During this course in the second semester, we have covered four specific knitwear industry-oriented courses, they are as follows-

- KIM 201:** Introduction to Garments Industry – Knitwear.
- KIM 202:** Industrial Engineering.
- KIM 203:** Production Management and Merchandizing.
- KIM 204:** Quality Management.

We got a very clear guideline from these four industry-oriented courses to how the Knitwear Industry needs to manage in the era of global marketing.

#### **Introduction to Garments Industry**

This course is beneficial for all who work in Knit Industry or intend to work. During this course, we receive a clear picture of fiber, yarn count, knitting, weft knitting, warp knitting, fabric, stitch length, course length, and yarn path notations. We also know about fabric, garments, processes, raw materials, machines, technology, automation, and so on.

#### **Industrial Engineering**

Industrial Engineering works for the optimization of complex processes, systems at the organization. Industrial Engineers work to eliminate waste of time & and make the work easier to perform. Below are the technical knowledge I applied during my internship period-



- At FTML I worked on operation bulletin. During this period I face some difficulties but the knowledge that I gain from this course about motion study & its principles, effective use of PMTS help me to develop the best method of doing an operation bulletin.
- In this course, I learned about critical path analysis & problem identification using gang process chart. Using this knowledge during my internship program, I am able to design proper line balancing. It help me to distribute workload among workers evenly in order to achieve maximum utilization of manpower & machine.
- By using gang process chart during setting line target directly impact manufacturing performance by improving productivity.
- IE related formulas that I learned from KIM help me to identify & decisions making in production lines.
- Different formula on KPI (Key performance indicators) help me to calculate productivity & performance.
- I learn about several waste detection tools during this course. It helps me to eliminate maximum wastage of time, money, materials, man-hours, machine time, energy, and other resources during working at FTML.
- Knowledge about pull, push, kanban, supermarket systems helps me to understand the technique of maintaining minimum inventory. It helps to save cost & maintaining the Maximum productivity level. Now, I am able to identify a systematic approach to continuous improvement which helps me to minimize machine downtime.

### **Production Management and Merchandising:**

Merchandising is the bridge between the buyer & the factory. From inquiry receive till shipment merchandising department played a vital role in order execution. During my academic program on production management and merchandising, I gather relevant knowledge & skills. This knowledge helps me in my internship program.

- During this course, we got a vast idea about analytical skills. Analytical skill is a key driving factor in the way of knit merchandising. This skill helps me to an analysis of the situation of FTML. Based on this analysis I determine the future demand and supply of goods.

- During this course, we got clear updated about local & international supplier also the global market. Now we are able to source supplier & business market. Which helps me to collect actual RAM price for costing during work on FTML.
- In this course, our teacher enlightens us about the importance of teamwork. We attended an aerial program on team management during this course. This experience helps to work in FTML during my internship program as a team.
- In this course, we got the actual product and manufacturing knowledge. During my internship program at FTML sometimes I need to make decisions quickly. This accumulated knowledge helps me to take the correct decision in such cases of quick decision-making.
- During this course, we got guidelines for the details about Factory workflow & barriers. This skill helps me to order execution in FTML.
- Correct consumption calculation knowledge help business to earn profit from an order. In this course, we got clear guidelines about garment consumption & costs. This knowledge helped me to make price quotations & fair negotiations during receive orders in FTML.
- Good product knowledge is a key to success in merchandising. During our course, we get details knowledge about products. This knowledge helped me during my internship program. Even after that in my professional life.

### **Quality Management**

During the Quality Management course, we are well-guided by our honorable teacher in quality, quality control, and quality assurance. We also know about the quality management system and its benefits. During this course, we get a clear picture of statutory and regulatory requirements in the textile sector, standard and guideline accreditation, international test method of textile testing & ISO. We learned about the process of certification and product certification. Now we have a clear picture about good practice and bad practice, registration, evaluation, authorization, and restriction of chemicals (REACH) pictorial. During my internship program as a Quality Assurance Manager first I highlight the below benefit of Quality Management System to FTML through my academic knowledge-

- Greater efficiency and less waste.

- Better and consistent control of major business processes.
- A better understanding of customer needs.
- Regulation of successful working practices.
- Improved risk management.
- Increased customer satisfaction.
- Improved participation of employees.
- Better internal communication.
- Greater consistency in the quality of products and services.
- Differentiation of your business from its competitors.
- Increased profits.
- Reduction of costly errors.
- Exploitation of new markets, both in the UK and overseas.
- Managing growth more effectively.
- An embedded culture of quality.

Considering upper benefit & based on the above steps I take some initiatives for implementing QMS (Quality Management System) to achieve international certification & perform necessary laboratory testing to obtain the eco-labelling mark at FTML. Those are given below.

- Define and map processes.
- Define quality policy.
- Define quality objectives.
- Develop metrics to track and monitor CSF data.
- Define detects for every process.
- Define quality process.
- Determine training needs.
- Use quality management system.
- Measure, monitor, and implement activities to improve performance.

### **3.2 Suggestion for industry improvement**

During my internship time, I found here some improvement area below some points-

- Growing demand for RMG products, considering its impact on our environment and future generation this sector FTML to start transforming its manufacturing process into green and environment-friendly.
- Increase mid-level management development program by professional training, organized work environment, motivation, and leadership opportunity.
- Increase number of technical workshop & training program.
- Increase proper training session for our own workforce to reduce dependency on foreign top management.
- To reduce ideal time follow standard SOP.
- Introduction of new technology & automation in the meantime manage proper training session to adopt new technology.
- To ensure worker mental & physical health arrange counseling & exercise program.
- Considering the future environment needs to give importance to sustainable production & infrastructure development.
- Ensure work environment considering 100% compliance & safety.
- Ensure women's safety during & after work.
- Ensure proper raw material management to control the cost.
- Establish a link between worker, employee & stakeholder interest with company mission, vision, goal & objective.
- Follow standard SOP & TNA for on-time delivery.

### **3.3 Learning for self-improvement**

Due to this internship program, I communicated with several departments as well as people. It increases my intercommunication skills & confidants also I am able to learn about different activities of several departments. I am able to acquire knowledge about overall the organizational & industrial process. I had acquired valuable skills, experience & knowledge. This accumulated theoretical and practical knowledge, skill & experience will help me in the future to lead a Knit Industry as top-level management. Below is some valuable area of my self-improvement during this course.

- My interpersonal skill like communication, negotiation, versatility improve at the maximum level. Now we are live in the world of global marketing. Using acquired

versatile knowledge now I am able to face the challenge of global marketing, Market diversification, also able to handle the process of designing and integrating various elements of marketing in such a way that ensures the achievement of the organization's objective.

- Through this course, I am able to improve my analytical skills. Now I am able to analyze the probability, risk, and other required areas to take proper decisions.
- Able to gather sound knowledge about technical, mechanical, automation, organization management, motivation, leadership, marketing, operation management, research & development process. Now I am confident to run the industry in an organized way.
- Green and environment-friendly industrial initiative is a major drive towards sustainable industrial development around the world. During this course I am able to learn the overview of the social, economic, and environmental benefit of green & environment-friendly industries activity in the RMG sector. I am able to learn major prerequisites of green & environment-friendly industry as location and transportation, materials and resources, water efficiency, energy and atmosphere, sustainable sites, indoor environmental quality, regional priority credits. It will help me to convert my own working organization from a general structure GMG factory to a sustainable well structure green factory.

## Chapter 4

### Conclusion

When the journey started of PGD-KIM, it was always full of knowledge and information for me. But the most interesting and challenging part was the internship period, where I able to get new experiment I always treasure for this type of opportunity that enhance my skills and abilities in a new dimension. This internship helps me to discover my inner potentiality and boost my self-confidence. At the end of attachment I realized that this industrial training makes my knowledge more practical and make me confident to face any problem in our practical and challenging professional life.

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