

Report On
Apex Spinning & knitting Mills Ltd.
Process flow of Garments Manufacturing

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
November 2025

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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/We have acknowledged all main sources of help.

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Letter of Transmittal

Shaila Ahmed

Assistant Professor & Research Fellow

BIGD, Brac University

66 Mohakhali, Dhaka-1212

Subject: Process flow of garments manufacturing

Dear Sir / Madam,

I am very pleased to submit my internship report on process flow of garments manufacturing.

During the time of internship, I have gathered practical knowledge & experience which I have tried to describe in my report clearly & highlight the key areas.

I hope the report meets the expected standards & internship requirement.

Sincerely yours,

Susmita Roy

24281072

Executive Development Center, BIGD

Brac University

November,2025

Non-Disclosure Agreement

This agreement is made and entered into by and between Apex spinning & Knitting Mills ltd
and the undersigned student at EDC, BIGD, Brac
University.....

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Acknowledgement

I'd like to express my sincere gratitude to BRAC University for providing me with the opportunity to finish my internship as part of the PGD program. My sincere thanks go to my academic supervisor, whose direction and feedback were invaluable during the writing of this report. I am also indebted to Apex Spinning & Knitting Mills Ltd. management and employees for their helpful cooperation and assistance during my internship. At the end I deeply appreciate the support from my family & friends.

Executive Summary

The report is made on the experience I made from ASKML as an intern, the internship program was directed by the BIGD program PGD-KIM. In the internship I learned how different sections practically work of factory, here I gained practical knowledge. The report is made very sequentially writing about the organization, overview of the industry, Vision & Mission, Goals & Objectives, organizations structure, products, different sections of factory. Andlastly how the PGD programs align with the practical life in factory and how it will affect the factory life.

In the time of internship, I closely worked with various departments, but I mainly focused in R&D, AOP, Lab coloration, Testing lab & GPQ. I assisted in their work. Learned their responsibilities, working procedure, and their bindings. I assisted them in improvement of processes, time saving ad increasing efficiency.

The final section of this report connects my academic knowledge from the PGD KIM program with practical industry applications. The course enabled me to relate theoretical concepts of supply chain, industrial engineering, and sustainability to real factory practices at ASKML. This internship not only enhanced my technical understanding but also improved my analytical and professional skills. Overall, it has strengthened my ability to align organizational goals with sustainable and efficient business practices.

Key Words: Apex Spinning & Knitting Mills Ltd., Knitwear Industry, Sustainability, Internship, Industrial Engineering, Quality Assurance, Supply Chain, PGD KIM.

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List of Acronyms

ASKML	Apex spinning & knitting Mills ltd.
AOP	All over Print
GPQ	Guideline for Production and Quality
QC	Quality control
IE	Industrial Engineering
R&D	Research & Development
SMV	Standard minutes value
GOTS	Global organic textile Standard
OCS	Organic Content Standard

Chapter1

About Organization

1.1 Overview of the Industry

Global Knit industry is one of the most-vast, fast-growing markets which worth hundreds of billions of USD. Over the few years the global market for knit industry is expected to expand at the rate of 4-5% per year. The major exporters of knit industry are China, Bangladesh, India, Vietnam, Europe etc. & the major importers are USA & European Union. Also demand in Asia-Pacific growing due to fashion conscious young generation & trend following tendency. The demand for sustainable product is increasing worldwide.

Bangladesh is one of the leading exporters in global market. Due to its cheap labor, Urgent support giving tendency to buyer, growing strong backward linkage.

Apex spinning & knitting mills directly contributes to the GDP by creating employment & earning USD through export. It plays a vital role to the society maintaining sustainability by adapting to eco-friendly dyeing, following water reduction process, maintaining compliance standard. It has over 5995+ employee, 52+ total lines, 3M+ capacity/month. Its products are Baby wear, Girl's wear, Boy's wear. ASKML is Oeko-Tex, Gots, Bsci, Gcs, OCS etc certified. It has very strong backward linkage knitting, Dyeing, Printing, Narrow Fabric, Embellishments & others. Strength of ASKML is Quality Assurance, Design Center, IE, Learning center. Health & Safety, Child Labor & Remediation, Compensation & benefits, Environmental policies are well maintained. ASKML adds high local value, focuses on women employment & contributes to national knitwear engine. Apex Spinning & Knitting Mills Ltd. (2025)

1.2 Vision & Mission

Vision:

To achieve complete customer satisfaction on a global scale.

To drive continuous improvement in product quality across all operations.

Mission:

To thoroughly understand and meet customer demands and needs.

To actively add value and reduce costs in production processes.

To offer innovative thinking and solutions to enhance product quality.

To uphold world-class compliance, working standards, and ethical governance.

To be a leading manufacturer and exporter of high-quality, vertically integrated knit garments.

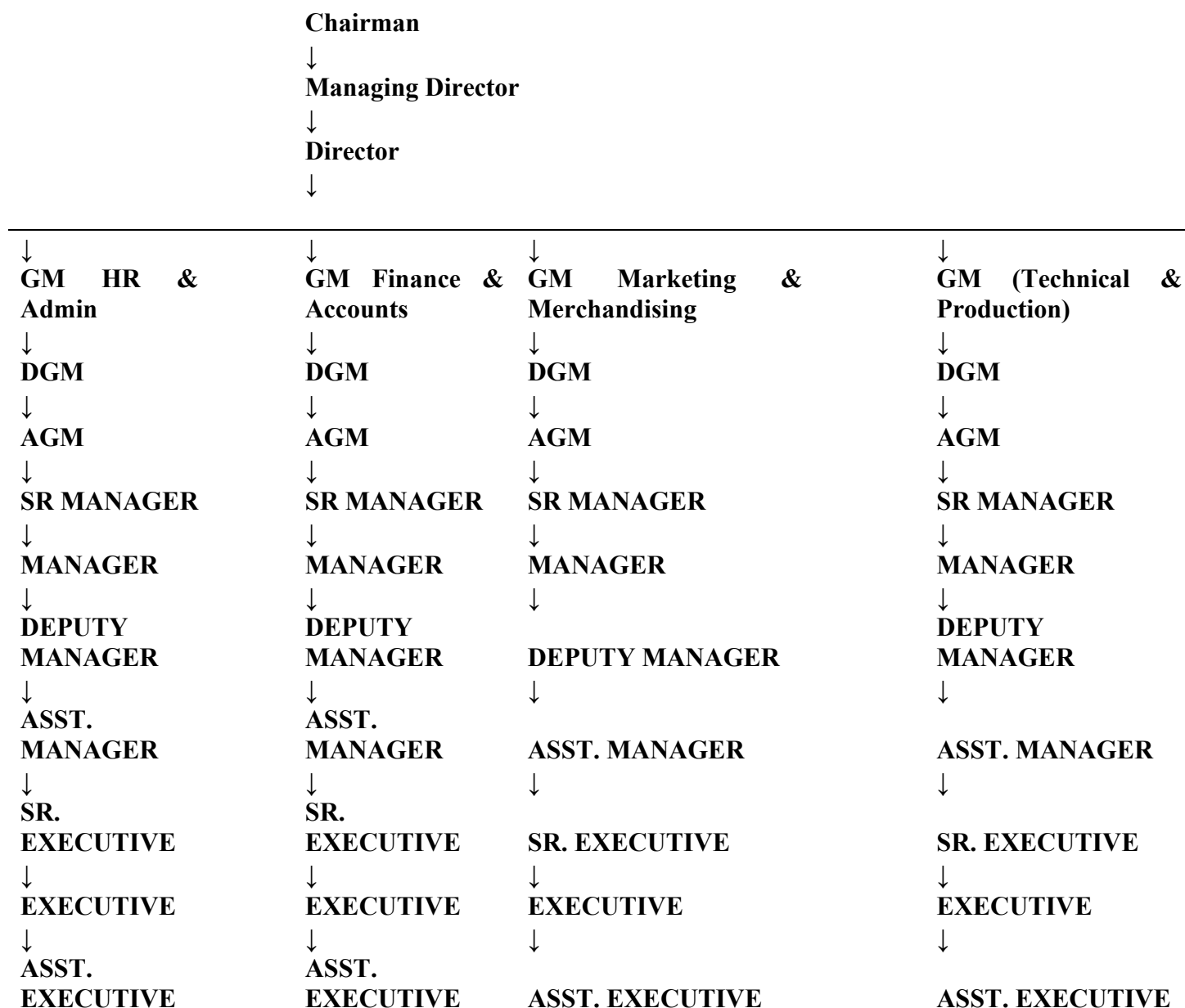
Apex Spinning & Knitting Mills Ltd. (2025).

1.3 Objectives

Apex Spinning & Knitting Mills Ltd. (ASKML) aims to be a leading, vertically integrated manufacturer and exporter of knit garments, providing high-quality, complex, and customizable textile products to global markets while upholding strong corporate governance and stakeholder value.

Apex Spinning & Knitting Mills Ltd. (2025).

1.4 Organizational structure, Organogram, Branches and Departments



1.5 Products/services produced by the industry

Apex Spinning & Knitting Mills Limited (ASKML) is a vertically integrated company that manufactures high quality knit garments. The company specializes in infant, children, and womenswear using fabrics produced in-house. ASKML is equipped to produce a wide range of

solid dyed, yarn dyed, and all-over printed fabrics using a variety of designs provided by the customer. We can also generate innovative design ideas from our in-house design department. The in-house fabrics can be circular or warp knit in various compositions ranging from 100% cotton to nylon microfiber and gauges ranging from 24GG to 46GG. ASKML is equipped with in-house facilities for embroidery and placement print to offer our customers a variety of product complexity and design. The fifty-two sewing lines are set up to efficiently produce 2.8 to 3.0 million garment pieces per month. We are able to produce complex, fully customizable value-added items for our clients as required by our clients. Products Developed by ASKML:

T-shirts for children are available from ASKML in a variety of styles, including basic, and fashion. These are available in solid colors, prints, and yarn-dyed patterns and are made from high-quality knit fabrics like cotton, cotton blends. Bodysuit, Romper are also made in ASKML. ASKML mostly does children's wear. Infant garments -45% of total sales and generate 38% of total profit. Children's garments (35% of total sales generate 38% of total profit of the company).

Apex Spinning & Knitting Mills Ltd. (2025).

Chapter2

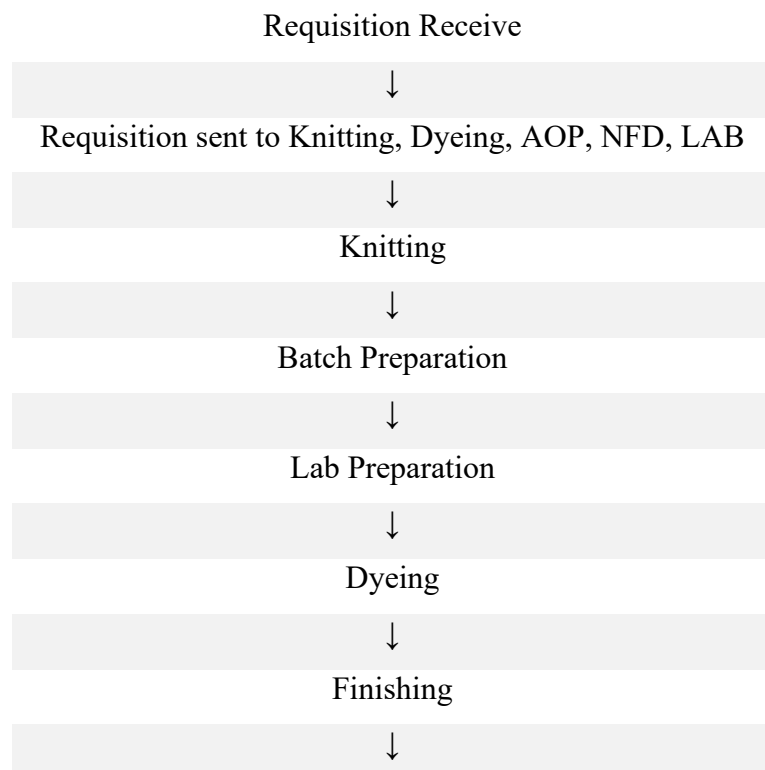
Description about task accomplishment

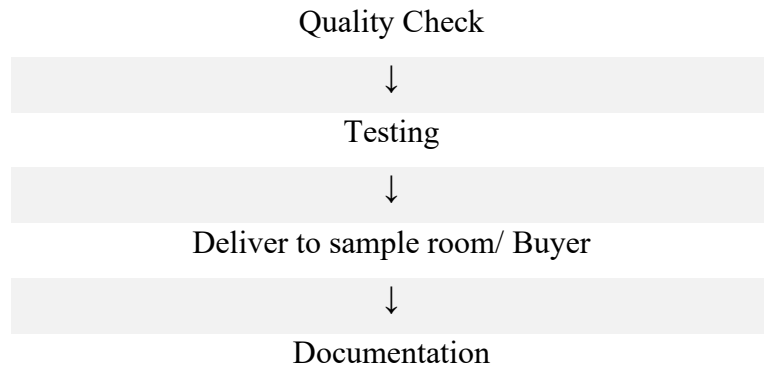
During the internship time I had the opportunity to work with several departments. Each department provided valuable knowledge & practical knowledge The departments I worked with are as follows:

- 1.R&D
- 2.Lab testing
- 3.Coloration lab
- 4.All Over Print
5. GPQ

2.1 Research & Development (R&D):

While working in R&D I have analyzed their process & the flow chart is below:





This department mainly focuses on creating & improving fabric quality, design, production process as per buyer requirement. Its responsibility is from fabrication to final inspection of finished fabric.

Responsibilities of the R&D department:

I observed and assisted in coordinating with the production, marketing and merchandising teams regarding various technical issues and sample approvals. This coordination helped ensure that every fabric and sample met the buyer's technical requirements before moving forward to production.

I learned how the R&D team identifies and develops the most suitable and efficient production processes. The goal is to maintain high quality while optimizing the use of materials, machine and time.

I was involved in monitoring certain process to understand how time and cost can be minimized through better productivity and process improvement.

Main functions of R&D Department:

One of key tasks was to assist in swatch analysis. I helped in measuring and recording various physical properties of fabric samples such as:

WPI, PPI, GSM, Physical warp and weft count, weave analysis, yarn type, fabric composition

This analysis helped determine whether the fabric met the required technical standards for production. I also observed and took part in order confirmation process. When the merchandiser provided garment requirements, I saw how the request was shared with different departments such as PDM, R&D, Lab, Coloration, knitting, dyeing, finishing and quality. I assisted in preparing development samples and learned how all departments work together to create the final approved sample before bulk production and delivery to the buyer. In the sample development process, I assisted. My role was to help check the buyer's tech pack and understand specifications such as GSM, fabric composition, yarn count, and required finishing. I also observed how samples were prepared in the lab and submitted for buyer approval.

In the internship time I helped to differentiate different yarns. I learned how different counts of yarn can be identified and the process of identifying them. When the R & D team used to check the warp & weft I assisted and helped them. I learned how different yarns; conditions effect the formation of fabrics and their quality. Different buyer had different requirement, I studied them and tried to understand how the requirements were filled. I helped collect fabric samples and test data for matching buyer standards. I assisted in analyzing buyer swatches by checking WPI, CPI, GSM and yarn composition. I learned how similar fabrics are recreated by matching the original swatch. I saw how the R&D department also works on their own innovative fabric ideas. I helped prepare small samples for internal testing and record their construction details for future reference. I observed different functional finishing processes applied to fabrics to improve their performance. I helped the team note down finish types, fabric reactions, and quality outcomes. Some of the finishes I worked with or observed include flame retardant finish, anti-microbial finish, anti-soil finish.

During the internship I faced many issues main issue was poor coordination between R&D team and production team. Because of poor co-ordination there were misunderstanding about fabric standards. There were also difficult to collect data. Which cause delays on sample development. For the unavailability of advanced lab equipment some experiments couldn't be done & sometimes proper result was not availed. As Proper data also not maintained. It creates difficulty to innovation and maintain accurate result. As we were interns, we didn't have access to buyer all data. So, we faced difficulty to understand buyer's demand properly and they are working process. As the R&D

team had TNA for every different development and there were many buyers and their requirements were very different. They have to work very tight schedule to maintain quality with a short lead time. More manpower's is also needed. I saw the communication gap between the merchandising, production and R & D team. More skilled manpower is needed to maintain R & D tasks. The machines were also not updated.

2.2 Lab Testing:

In the testing lab, as per merchandiser requisition lab dip is made & also the quality parameters are maintained as per buyer requirement. Lab dips are made as per buyer's pantone. The lab dip then sent to buyer if approved then laboratory supplies recipe to dyeing floor for bulk dyeing. Some lab dips also had comments from buyer which I witnessed. Then the lab dips were resubmitted for approval.

ASKML has two types lab

1. Physical & chemical lab. In my internship period I have learned that physical and chemical testing plays a vital role in ensuring the quality, safety and performance of textile products. Physical testing focuses on assessing how a fabric performs under different physical conditions. It checks the durability, strength, appearance and resistance properties of final product. On the other hand, chemical testing is carried out to identify and analyze the presence of various chemical substances and to study the fabrics chemical behavior under specific conditions.

During my internship I worked in the testing department, which is responsible for ensuring that all textile products meet the required quality, safety and performance standards before they are approved for production or shipment. The department performs both physical and chemical tests on fabric samples to identify defects, evaluate durability and confirm compliance with international standard such a AATCC and ISO.

I participated in performing physical tests this includes color fastness tests to determine how well the fabric maintains its color when subjected to different conditions such as rubbing, washing, water, perspiration, saliva, seawater, pool water and phenolic yellowing. I also observed tests to measure the bursting strength, pilling resistance, dimensional stability, fabric weight and wicking

properties of different fabric samples. Each of these tests helps determine whether the fabric will maintain its appearance and performance during use and after repeated laundering.

In addition to physical test, I was also involved in observing chemical test. One of the common tests performed was nickel spot or release test, where Dimethyl Glyoxime and ammonia solutions were used. Two drops of each solution were applied on separate cotton buds and the metal surface was gently rubbed with them. If the cotton buds turned pink, it confirmed the presence of nickel on the surface being tested.

PH test is a chemical test. It is done to detect the fabric's Ph value. It is very important that the Ph value is in control or balanced without that the fabric may cause may problems to skin. Fiber analysis test is also done in lab. To measure the moisture content fiber analysis test is done 0.5-1.5 grams of fabric is taken then washed in hot water and lastly detected in fiber analysis machine. If spandex is found then N, N- Dimethylacetamide is mixed. The fabric is mixed with the solution and kept in hot water for 30 minutes then again washed, then the moisture content is measured once more using a moisture meter.

In lab I mainly assisted the lab technicians in sample preparation, labeling, and organizing testing data. I also learned how to handle testing equipment safely and observed how results are interpreted and recorded. One of the major challenges I faced was understanding the complex testing procedures and chemical reactions during the first few days. Many of the machines and testing methods were new to me, so it took time to become familiar with their operation and safety precautions. And also, the machines were not updated they sometimes fail to give accurate data.

As there were always pressure and a time dedicated to each test, it's really difficult to maintain all standard testing process. As an intern it was really hard for me to understand the complex testing methods and international standards such as ASTM, AATCC. And confusion starts from the unclear communication between lab technicians and other departments. And wrong labeling, documentation, losing data or inserting wrong data mistakenly creates more difficulty. Additionally, there were more challenges such as frequent machine breakdown, maintenance delays which interrupts work flow. Insufficient ventilation or safety measure in the lab especially for chemical lab, lack of proper guidance, variation in environmental conditions such as temperature and humidity affected the accuracy of test results, The pressure to create multiple samples at the same time and limited use of digital system are the difficulties I noticed.

AATCC (2025); ISO (2025)

2.3 Coloration lab:

During my internship in the coloration lab, I learned that a lab dip is a dyed fabric sample prepared to match the color standard required by the buyer.

Lab dips are usually developed in a dye house or laboratory to give an accurate idea of what the final color will look like in production.

Objective of lab dip:

The main objective of preparing lab dips are to develop a lab dip that matches the buyer's color standard as closely as possible using available dyes or chemicals and also to compare the dyed sample with the buyer's swatch using a light box or spectrophotometer. Additionally gather and finalize the dye recipe based on the buyer's given swatch & also to obtain buyer approval once lab dip matches the required standard.

Responsibilities of the coloration lab:

During the internship period, I observed and participated in several important tasks carried out in the coloration lab. Color matching prediction was done by

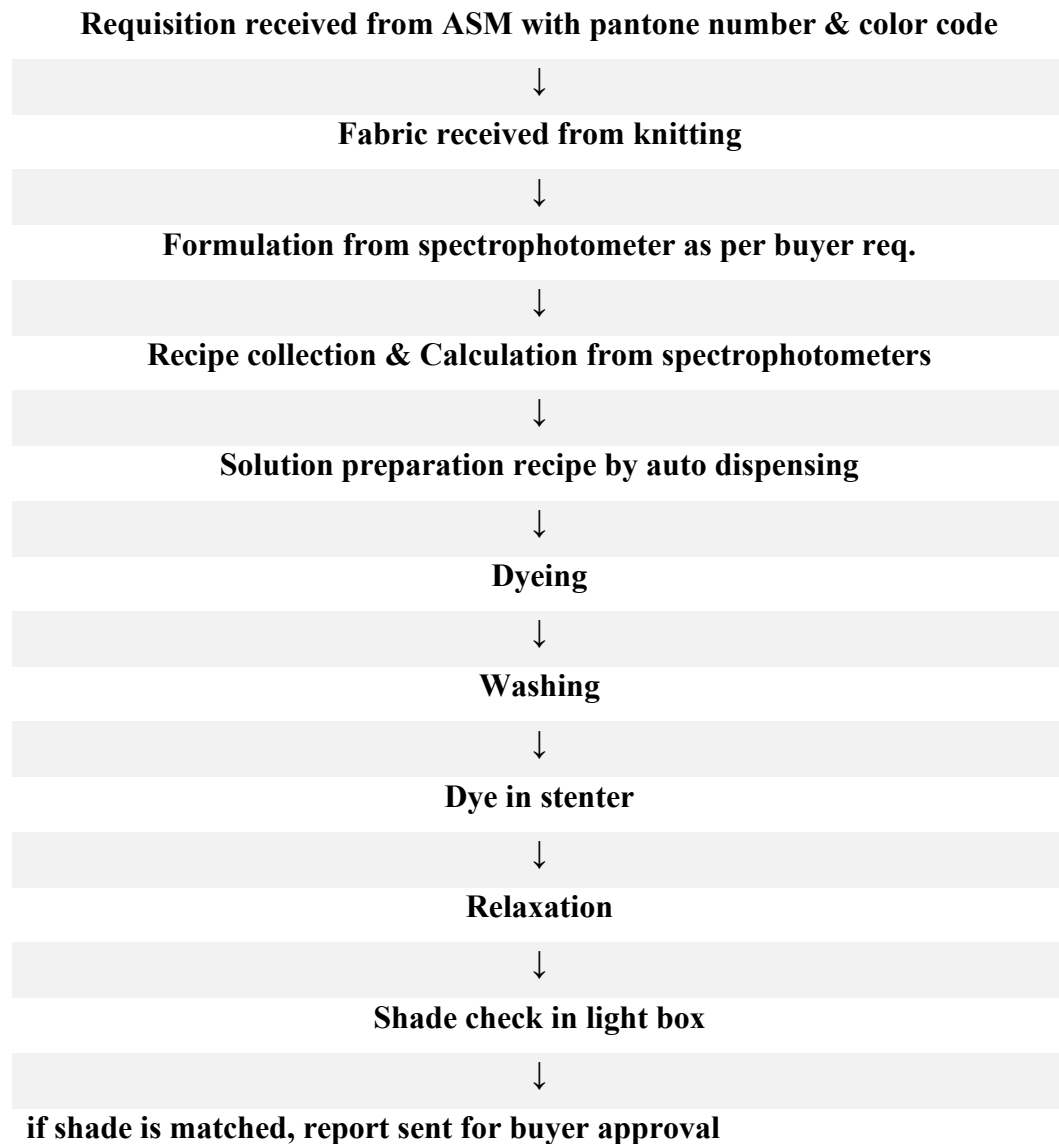
Developing color samples that visually match the buyer's swatch. Also to measure Color difference. They also Measure and analyze the difference between two color samples. Determination of Metamerism is also done where color's behavior is checked under different light sources to ensure consistency.

Light box usage: It's used to check color differences under various lighting conditions. It identifies metamerism-when two colors appear the same under one light but different under another.

Common Light Sources Used:

- D65 -Artificial Daylight
- TL83-Store light
- TL84- Store light
- UV – Ultraviolet light
- A-Incandescent light

Dyeing color lab flow chart



Spectrophotometer (Data color):

In my internship period I learnt about data color an advanced instrument used to measure the amount of light reflected or transmitted through a fabric sample. This device analyzes the color swatch and helps generate an accurate dyeing recipe. It also compares between the lab dip & the buyer send swatch.

Functions:

There are many functions each are described one by one. Color measurement & calculation-It measures the amount of light reflected or transmitted by a fabric or sample at different wavelengths. Its main purpose is to detect the exact shade, color difference between the standard and the sample. Another is Recipe formulation for dyeing- Depending on the color data, it creates a dyeing recipe. It shares the right amount of dye and chemicals required to achieve the desired shade. Next, Quality control management and shade sorting- It mainly checks if the dyed fabric matches the approved color standard. Color match prediction and correction -it mainly shares how close a lab dyed sample is to the target shade and suggest corrections. It minimizes trial and error in the dyeing process, saves time and chemicals.

Spectrophotometer swath analysis:

DL-Darker (-)/ Lighter (+)

DA-Delta Alfa

DB-Delta Beta

DC-Delta Chroma

DH-Delta Hue

DA= (+) Reddish, (-) Greenish

DB = (+) Yellowish, (-) Bluish

CMC=Color measurement committee.

Shade evaluation method:

- i) Visal Method
- ii) Instrumental method

As an intern I assisted the lab technicians in preparing dye solutions, labeling fabric samples and observing the color matching process. I also learned how to use the light box to compare shades visually and how to read color data from the spectrophotometer.

In the beginning I faced several challenges in the lab. One of the main difficulties was understanding how different dyeing parameters-such as temperature, time and chemical concentration affected the final shade. Even a small change in any of these factors could produce a noticeably different result. Handling chemicals carefully while ensuring accurate measurement was another challenge, especially since safety, precision. Additionally frequent calibration errors affect the test results. Some there is shortage of chemicals and dyes which creates delay in test and shade preparation. Additionally, difficulty I faced in controlling temperature, Ph, time, and chemical concentration, also shade mismatched during lab dip and bulk production which occurs due to different machine setting. Another difficulty is color assessment under different light source. And as always mislabeling creates huge confusion.

2.4 AOP:

AOP (all over print) is a textile printing process that applies designs across the entire surface area of fabrics, allowing for seamless patterns and vibrant visuals on garment textile. In AOP firstly they receive artwork file from buyers for printing orders. They design the artwork using photoshop software. Handles color separation for printing. They prepare screens and stencils. Additionally prepares print screens/shutters or films. Then submits screens to a supervisor for review and approval of design/color. After approval the AOP is done on counter, mock, pp. Then they proceed for bulk.

Different types of print are done in AOP. Such as pigment print is done on all types of fabrics, reactive is done in cotton, Discharge is done in all types of fabrics, disperse is done inn polyester, Acid in Nylon, Glitter in all types of fabrics, Metallic is in all types of fabric, burn out in cotton polyester mix (CVC).

Also printing paste is made of various components. Such as dyes or pigments, Binder, Thickeners, wetting agents, solvents, solutions aids, dispersing agent, oxidizing and reducing agent, Acids, Alkali, Buffers, Carriers and swelling agents. Print fabric defect is also seen they are design out/setting out, miss print, pin hole/touching, back side uneven, back side color line, water line, selvedge miss print, color bleeding, wrong position, fabric grain line position, over penetration.

As an intern I observed and learned about different types of printing technique, I also studied how screens and screens frames are prepared, how color paste are mixed according to formulation, how fabric is printed using rotary and flat-bed printing m/c. And also, I assisted in shade matching, print quality checking and fault identification during and after printing. I also learned how temperature, viscosity and drying time affect print quality and how machine parameters are controlled for consistent production results.

I also faced some difficulties one major issue is to maintain accurate color matching between the print and approved shade. As I had limited understanding of practical printing process, machinery operations and chemical handling. Achieving the exact shade matching with buyer standard was often difficult due to differences in fabric type. Operating and understanding the technical step of rotary and flatbed printing machine required experience, as an intern, I initially struggled to keep up with the operator's pace. The AOP section involves with dyes, pigments and heat based printing machines, which created a challenging work environment. The heat, humidity caused fatigue. Frequent trials and error in lab dips causes delays. And also, I faced difficulty in understanding complex machine settings. Some machines were outdated, occasional downtimes also slowed production. Further-more the working environment was quite warm and humid. Lack of hands-on experience, with modern automated printing machines & limited knowledge of digital printing process. One more concerning area is handling chemicals and dyes without proper guidance. Need to provide PPE and chemical handling training to all interns and staff.

2.5 GPQ (Guideline for Production and Quality):

The main objective of GPQ departments is to ensure 100% buyer satisfaction by maintaining consistent product quality. They establish and follow production guidelines across all depts. They mainly minimize defects. They also train workers and qc staff on proper inspection, testing and quality procedures. They maintain 4-point quality inspection and ensures corrective actions. GPQ mainly ensures that quality is ensured in all stages of production. In the factory from buyers end there happens quality assurance inspection. But from factory end to make quality is ensured and no department can get away with it and ensure quality as per buyer requirement and approval GPQ teams plays a great role. It also ensures that the communication between all departments is clear

and everyone is connected and there's no communication gap to meet the buyer needs. GPQ teams work to increase more efficiency with maintaining quality.

As an intern, I attended pre-production meeting where buyer's comments are main issue. I also assisted in how they collect dye lot from the bulk and match shade with approved lab dip. Then helped sending the sample to merchandiser and waited for the buyer's comment. And if buyer has any comment, I noticed how they try to follow it. And after comments how they resubmit and keep tracking. I noticed how small issues are highly noticed and effect one shipment. This experienced made me realize how hard it is to maintain quality with efficiency. And what great role GPQ plays in maintaining quality. I learned how important is to give proper guideline to other departments. In knitting department GPQ has to check yarn test, FTD check, Training document, Housekeeping, Inspection. I also saw them to follow buyer guideline in the time of yarn purchasing.

Problems I noticed is how the communication gap between production team and GPQ team can cause delays and corrections in quality. I observed that unclear buyer requirements or quality guidelines can cause many issues. Often the lab dip, print approvals, or shade cards took time to get approval which delayed production process. Maintaining same shade in all batches is changing, minor difference can create huge difference in shade, hand feel. Sometimes shade variation is seen and also due to lack of skilled man power finishing section sometimes leads to defects. Some machines are not properly working and they fail to maintain quality. Many inspections and records are done manually made it difficult to trace quality issues quickly. The GPQ team works for quality but they can't work properly due to lack of man power. Proper training is not given. Manual work is also a huge limitation. Which lessens productivity, kills time and sometimes wrong decision is made.

Chapter 3

Critical assessment of Internship work

3.1 Application of generic and industry specific courses during internship

I was able to effectively apply both the general and specialized academic knowledge I had learned in my coursework to the day-to-day operations of Apex Spinning Mills Limited during my internship. Utilizing both industry-specific and generic courses This practical experience helped me better understand how academic concepts optimize industrial processes by bridging the gap between theory and practical application. A brief explanation of how particular courses influenced my internship experience is provided below:

KIM 101: HR Skills and Competencies

My knowledge of important HR tasks like hiring, payroll management, and employee relations that are unique to the textile sector has increased as a result of this course. I noticed that, in spite of official HR policies, informal traditional practices at the spinning mill caused significant variation in salary structures and employee welfare initiatives. This proves that there must be standard of payment in this sector. Here I also noticed that the employees demand and needs were very much neglected times. (BRAC University,2025).

KIM 103: Communication Skills

This course helped me to improve my communication skills very much. This improved my negotiation skills, convincing skills, public speaking skills. I find myself more confident. Which helps me during buyer meetings, supplier handling and team building capabilities. Directly which effects in my better performance which increases productivity, lessens idle time. This also improved my factory handling capability. I noticed better team management skills in me.

KIM 201: Introduction to the Garments Industry

This course helped me to understand better the industry. Here I learned how the supply chain works and the importance of supply chain. I learned through industry experience that if supply chain is well maintained how uncertain things can be managed, save time, cost and be more productive. I

also saw how having multiple options in hand in sourcing can save us from many situations and meet and manage critical situations easily.

(BRAC University,2025).

KIM 203: Production Management and Merchandising

Production and merchandising's one of the most important things is follow up. I tried to implement the production planning, team management, inventory management, inventory control methods in my internship to understand better their process and improve this departments work. This course helped me to keep track of yarn, fabric and all over production process.

(BRAC University,2025).

3.2 Suggestion for industry improvement

To improve the garments industry, improvements that required most importantly is better communication and coordination between R&D, production, and merchandising. Proper documentation and data management software should be introduced. More importance should be given on purchasing modern testing machines and advanced laboratory tools for accuracy and product development. Also, training can be arranged for improvement. And also, easy access to buyer requirements should be made for all departments to lessen confusion to meet customer satisfaction. Proper planning and documentation and ERP system can improve efficiency and reduce work time and improve quality. If above things are maintained properly significant change can be made in this department.

While the lab testing departments operate efficiently, I observed a few areas that could be improved. Some of the testing machines were old and occasionally caused delays due to maintenance issues. Upgrading to more modern and automated equipment could save time and reduce the chances of error. And the lab's all machine should be updated from time to time, more and more automated machines must be introduced. Planning must be done properly of m/c uses. Proper maintainer schedule must be made and always must have a backup plan. Time to time trainings must be taken to improve skills. And must maintain sufficient chemicals stock and testing materials, so that no delay can occur. The environment of the lab can be improved by proper ventilations for tests sensitive to humidity. Chemical safety guidelines and safety measures must

be maintained strictly. Wearing protective gear and maintain chemical safety guidelines must be strictly followed. Need to introduce ERP in very section and it need to be use for more record keeping and the data need to be accurate. Lastly the communication gap needs to reduce for smooth workflow.

In Coloration Lab, some areas need to improve in like better ventilation and safety measurement. Proper ventilation helps remove these gasses from the air and keeps the environment safe. Long term exposure to dye dusts or chemical can cause harm that's why proper ventilation is required. And also, to maintain accurate lab results ventilation required. By installing proper exhaust and ventilation systems it can be done. Need to make sure all staffs wear gloves, masks, goggles, lab coats. Also need to implement regular safety drills and chemical handling training. Equipment's need to be upgraded like dyeing machines, spectrophotometers and shade matching devices, schedule regular calibration of instruments for accurate results, introduce automated or semi-automated lab dyeing equipment for consistency. Need to maintain proper storage of dyes and chemicals and must label all chemicals with hazard info. By introducing chemical inventory system to avoid expired or incompatible chemicals. Also, if standard operation process for lab dip preparation and testing is done then human error can be reduced introducing better result. Need to set up proper effluent treatment and disposal methods for dyes and chemicals & by promoting eco-friendly dyes and process to meet buyer and environmental standards.

In AOP section to reduce the accidents or difficulties proper training need to be taken of interns & new staffs. They need to be trained about AOP sections basic things 1st. Like different types of printing techniques, color chemistry, machinery functions. Also need to provide them safety kits, make them aware of chemical hazards and safety issues. Introduce ERP to connect all departments, use spectrophotometers and shade scanners to reduce manual shade judgement. Teach interns to prioritize tasks and work systematically. Improved communication between design and production teams. Better environment control inside AOP by reducing heat and humidity. And lasty need to improve machinery.

Lastly, GPQ team need to do training time to time can reduce misunderstanding, better understanding, introducing a computerized tracking system for inspection reports, lab dips and buyer comments will make follow ups faster and more transparent. Scheduling timely online or

physical meeting with buyer's technical terms can clarify comments early and prevent confusion during bulk production. Need required manpower, Advanced technology can improve quality inspection save time and lessens delays. And Faster communication process can be maintained to save time. By improving communication and documentation and introducing digital platform. Regular maintenance of equipment and continuous improvement culture can help progress. By having clear, written sops for each quality checkpoint can ensure all inspectors follow the same guidelines. Quality checking should be also done at the initial stage. And also scheduling timely online or physical meetings with buyer's technical teams can clarify comments early and prevent confusion during bulk production.

3.3 Learning for self-improvement

Because of my internship I learned & gained practical knowledge. Which strengthen my base as I understand how practically things work. As I also gained theoretical knowledge it helped me to understand the process fast. It really developed my professional skills.

During the internship time I faced real challenges I learned how decisions should be taken and it should be managed. As I worked with many departments, I know how one's work affect others and how they are co related. I learned to effectively maintain communication, planning & decisions. I noticed how important it is to align all departments together to achieve company goal. Respect is another important thing to achieve any work.

I gained multitasking capabilities, working under pressure capability and time management capabilities through this internship period. As all of the works in this sector is in a timeline and I learned to do it, I gained confidence and my efficiency increased. I realized how important it is to maintain timeline, notice every little details and keeping ourself up to date with technology. This experience also increased my adaptability in different environment and situations. Lastly this experience increased capability and made me prepare for the future professional life by increasing my mental and technical knowledge both at the same time.

Chapter 4

Conclusion

In the end doing internship in ASKML helped me gain profession and practical knowledge both and understanding the industry life more. As I did internship in different sections I know what difficulties they face, what improvements need to done, what is their work. It really helped me to grow my understanding for my future career. It increased my decision-making capability, analytical capability, communication skills, situation handling capability and so on. It has made my base solid because I have both theoretical and practical knowledge both.

This experience will help me to grow fast in this sector. In the fast-growing industry now, I feel myself more capable and confident of situation handling. I can confidently face the difficult situations more. And it has also increased my adaptability in different situations and environment.

Moreover, this internship is deeply related to PGD-KIM. Here, the theoretical knowledges were given to improve the managerial capabilities and direct industrial operations. Now I have a better overview of the whole garments industry thanks to the post-graduation diploma in knit industry management which made me feel like a different person after this course. Lastly this course helped me to set my goal, the process and the most important confident to achieve what I want.

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