Report On

# Method of Operation and Production Management at Progress Apparels Bangladesh Limited

By

**Md. Jakaria**

Student ID: 1000055589

**Post Graduate Diploma in Knitwear Industry Management (PGD-KIM)**

Executive Development Center, BIGD

Brac University

March 2026

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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

March 2026

# Declaration

It is hereby declared that

1. The internship report submitted is my 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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**Md. Jakaria**

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

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**Md Mohsin Hossain**

Senior Research Associate, BIGD

Brac University

# Letter of Transmittal

**Md Mohsin Hossain**

Senior Research Associate

BIGD, Brac University

66 Mohakhali, Dhaka-1212

Subject: Submission of Internship Report on Progress Apparels Bangladesh Limited

Dear Sir,

This is my pleasure to share my internship details regarding Progress Apparels Bangladesh Limited (PABL), where I completed my internship across multiple departments, which I was appointed by your direction.

I have attempted my best to finish the report with the essential data and recommended propositions in a compact and comprehensive manner as possible.

I trust that the report will meet the required criteria.

Sincerely yours,

_____

Md. Jakaria

Student ID: 1000055589

Executive Development Center, BIGD

Brac University

Date: 10th March 2026

# Non-Disclosure Agreement

The undersigned student at the Executive Development Center, Brac Institute of Governance and Development, Brac University is the Second Party to this Agreement, which is made and entered into by and between Progress Apparels Bangladesh Limited (PABL) and the First Party. The Post Graduate Diploma in Knitwear Industry Management requirements for the Second Party's three-month internship have been partially satisfied by the First Party. The Second Party will have the chance to interact closely with the company's officials and will have access to official information and data. The Second Party will prepare an internship report based on work experience and data and information gathered during the internship. The Second Party will use any and all data and information for academic purposes while protecting the First Party's interests by not disclosing it to anyone.

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

_____

**Md. Jakaria**

Student ID: 1000055589

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

_____

**Ranjit Pandian**

Senior Vice President

Progress Apparels Bangladesh Limited

# Acknowledgement

I would like to express my sincere gratitude to all those who supported me throughout the completion of this internship and the preparation of this report.

Firstly, I would like to thank my academic supervisor for his valuable guidance and constructive feedback during the preparation of this report.

I am also grateful to my industry supervisor and the entire team at Progress Apparels Bangladesh Limited for giving me the opportunity to work in several departments and gain practical experience in garment manufacturing operations.

I would also like to thank the Executive Development Center, BIGD, BRAC University, for organizing the PGD-KIM program and facilitating this valuable internship opportunity.

## Executive Summary

During my internship at Progress Apparels Bangladesh Limited, a subsidiary of the PDS Group, I gained practical experience in five major departments: Merchandising, Production, IE & Planning and Quality Assurance department. Within these 3 months, I used my classroom knowledge to real factory applications, in SAP-based purchase order creation, sewing production efficiency improvement, Production planning for one million monthly pieces and AQL-based Final inspection. My contribution to sewing Line 12 helped improve sewing efficiency from 42% to 58% by working 5 days. This report documents explained the tasks completed, well assessment of PGD-KIM coursework and provide knowledge for industry growth. My internship Improved my technical and managerial experiences in garments manufacturing.



**Keywords:** Apparel Manufacturing; Production Management; SAP; Quality Control; Industrial Engineering; RMG

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# List of Acronyms

| | |
|---|---|
| **AQL** | Acceptable Quality Level |
| **BBS** | Behavior-Based Safety |
| **BOM** | Bill of Materials |
| **ERP** | Enterprise Resource Planning |
| **FOB** | Free On Board |
| **GSD** | General Sewing Data |
| **IE** | Industrial Engineering |
| **KPI** | Key Performance Indicator |
| **OB** | Operation Bulletin |
| **PABL** | Progress Apparels Bangladesh Limited |
| **PDS** | PDS Group (Parent Company) |
| **PO** | Purchase Order |
| **RMG** | Ready-Made Garments |
| **SAP** | Systems, Applications, and Products in Data Processing |
| **SMV** | Standard Minute Value |
| **SOP** | Standard Operating Procedure |
| **TNA** | Time and Action |
| **WIP** | Work in Process |

# Glossary

| | |
|---|---|
| **AQL** | A statistical measurement method used in quality inspection that defines the maximum acceptable number of defective units in a sample lot. |
| **Line Balancing** | The process of distributing work equally among workstations on a sewing line to minimize idle time and maximize efficiency. |
| **Operation Bulletin** | A detailed document that breaks down all sewing operations for a garment style, specifying machines, time allowances, and operator assignments. |
| **SMV** | Standard Minute Value; the time required by a qualified operator to complete a specific operation at standard performance. |
| **Tech Pack** | A comprehensive technical document containing all specifications, measurements, and materials needed to manufacture a garment. |
| **TNA Calendar** | Time and Action calendar; a project management tool tracking all critical milestones from order confirmation to shipment. |

# Chapter 1: About Organization

## 1.1 Overview of the Industry

In our country, the Ready-Made Garments sector is important for our overall economy. The RMG sector earns 84% of all export earnings, which is amazing. In 2025, our RMG export was over $38 billion, in this unstable situation of the global economy. In the RMG sector, working about 4 million manpower, the majority are women, and they are contributing very good support in family. Industries in our country produce knitwear, woven items, and various high-value products for highly valuable international brands in the world.

Progress Apparels Bangladesh Limited with small amount of production. PABL started with 220 workers and 4 training lines in 2017. The first buyer was Matalan, which was about $860,000 for 230,000pcs garments in the first year. But PABL growth has been expanded by 2022, and within five years they expanded to 45 sewing lines, improved their production from a small hundred thousand to 12mn pcs a year, and reached $55mn in revenue.

Nowadays, PABL is not just a regular cut-and-sew factory. With PDS Group taking them, they now manage the entire supply chain by themselves, managing everything from sourcing fabrics to designing apparel and arranging final shipment. Like other modern suppliers in our country, they focus on sustainability and quick turnaround times were meeting the strict compliance standards that global brands require. PDS Group also has various other companies, such as Good Earth Apparels Ltd and Norlanka Manufacturing Ltd, operating in different countries, showing how it has expanded its manufacturing operations.

## 1.2 Vision and Mission

### Vision

The vision of Progress Apparels is to create a world-class production facility. They want to go to global standards in production, quality, and efficiency, how things run on the world-class factory floor.

**Mission**

Their mission is to make a world-class manufacturing business by working together with all the sister concerns. They also give importance to green and sustainable processes and try to make their Production processes so that they do not impact the environment much.

## 1.3 Goals and Objectives

1. Sustainability and Green Manufacturing: The company uses solar energy, which provides 30kW per hour. The factory follows a zero-waste policy to minimize landfill disposal. Their machines are modern ecofriendly ones that can cut electricity usage by up to 40%.

2. High Quality and World Class Manufacturing: The main objective is to manufacture good quality garments and offer services from design through final shipment. They try to turn around orders fast while maintaining proper standards for quality and ethics

3. People Empowerment and Workplace Safety: More than 95% of the workforce is women, demonstrating the company's commitment to women's empowerment. They arrange health awareness programs and give Behavior-Based Safety (BBS) training to workers. This helps reduce accidents and encourages workers to follow safe ways of working.

4. Operational Excellence: They use modern technology in the factory to reduce costs and increase production. The factory has 45 sewing lines and a man-to-machine ratio of 1:1.19. This helps the company stay competitive in the global garment market.

## 1.4 Organizational Structure, Organogram, Branches, and Departments

PABL has its main office with different departments such as Merchandising, Accounts, Design, and Production. Teams from design, sourcing, production, washing, and quality testing work together to complete the work. The company also has international teams in places like Hong Kong, the UK, India, and Turkey that help with sourcing and design activities.

*Table 1: PABL Factory Information*

| Metric | Value |
|---|---|
| No. of Production Lines | 45 |
| No. of Sewing Machines | 2,600 |
| No. of Employees | 3,600 |
| Production Building Area | 270,000 Sq. ft |
| Total Capital Investment | USD $44 Million |
| Production Capacity (Monthly) | 1 Million pieces |
| Washing Unit Capacity (Monthly) | 500,000 pieces |

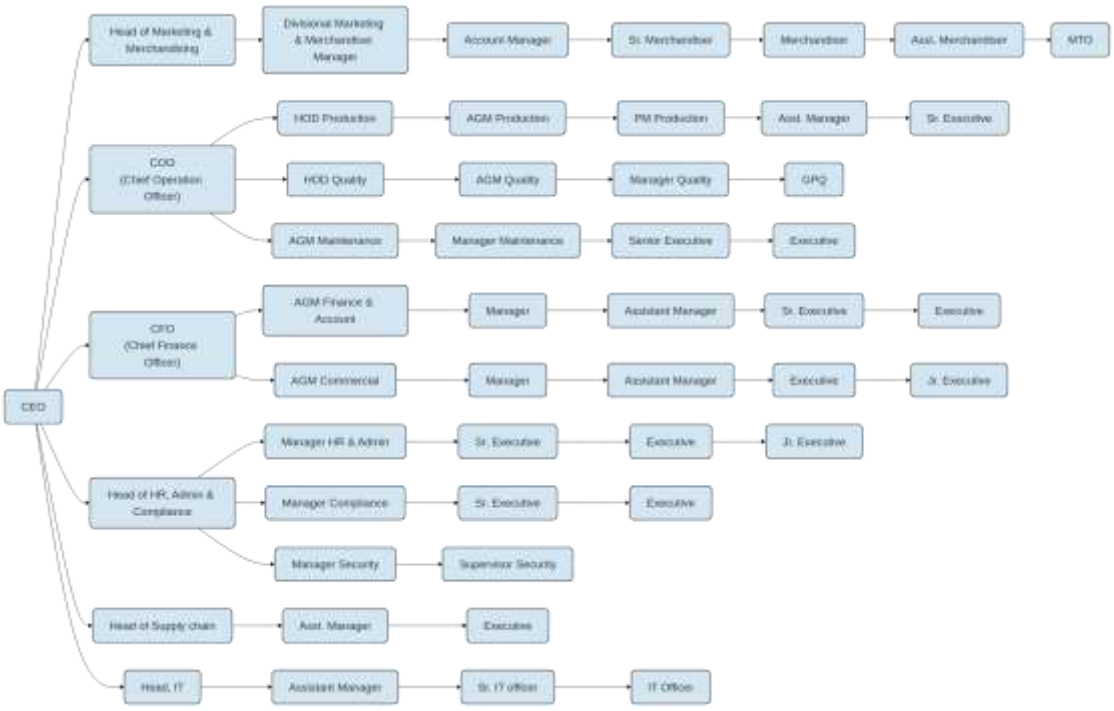


*Figure 1: PABL Organizational Structure (Source: PABL Company Profile)*

## 1.5 Products and Services Produced by Company

PABL mainly produces bottom wear such as formal trousers, chino pants, shorts, school uniforms, skirts, five-pocket pants, and cargo pants. They can do different types of washing, like enzyme

wash, softener wash, and garment wash. The company also has facilities for virtual design, pattern making, washing, and laboratory testing.

Figure 2 shows what products PABL makes and the percentage each category takes in production.

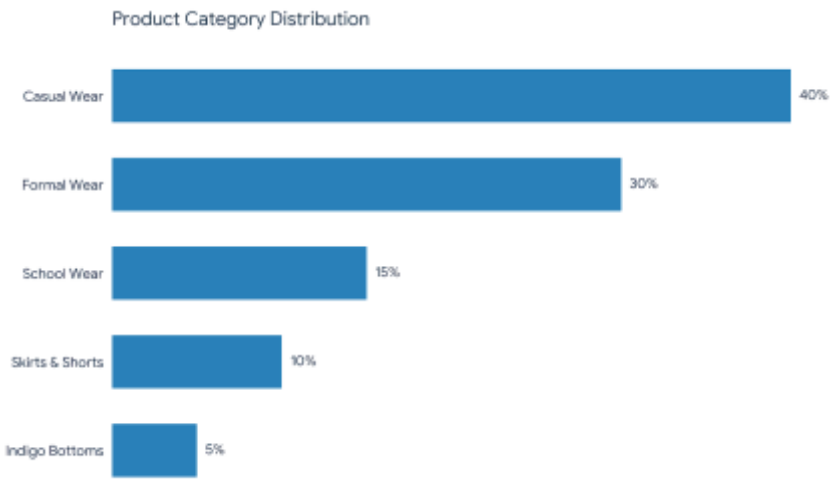


*Figure 2: Product Categories of PABL (Source: PABL Company Profile)*

At PABL, customers are divided into two groups. One group is group orders, which are arranged by PABL's own sourcing team, so they do not need outside marketing. About 40% of the factory's work comes from these group orders.

The other 60% of orders come from direct customers. To work with these customers, PABL has a strong marketing team, design facilities and an experienced merchandising team.

# Chapter 2: Description of Task Accomplished

During my internship at Progress Apparels Bangladesh Limited, I had the opportunity to work in five different departments as part of the PGD-KIM program. This experience helped me understand how different departments operate in a real garment manufacturing environment. The following sections describe the tasks and learning experiences from each department.

## 2.1 Merchandising and Order Follow-up

In the Merchandising and Marketing department, I learned that merchandisers act as the key link between customers and manufacturers. During my observation period, I noticed that merchandisers represent the customer's interests and requirements throughout the production process. From order confirmation to final shipment, merchandisers are responsible for coordinating many activities to ensure smooth order execution. During my internship, I mainly observed senior merchandisers and tried to understand how they manage multiple responsibilities simultaneously.

Figure 3 shows the organogram of the PABL Marketing and Merchandising department and how the team is structured.

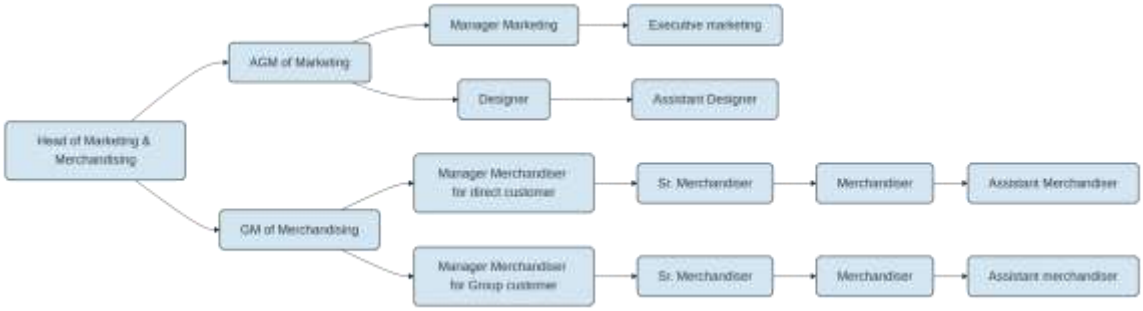


*Figure 3: Organogram of Marketing and Merchandising Department (Source: PABL)*

One of the most challenging tasks assigned to me during the internship was learning the SAP system used for purchase order creation. I learned how to use the Materials Management (MM) module and practiced transaction codes such as ME21N to create purchase orders. Even small data entry errors in material master data, vendor details, or pricing information can create significant problems in finance and logistics later.

Figure 4 shows how the marketing team works from customer inquiry through order execution.

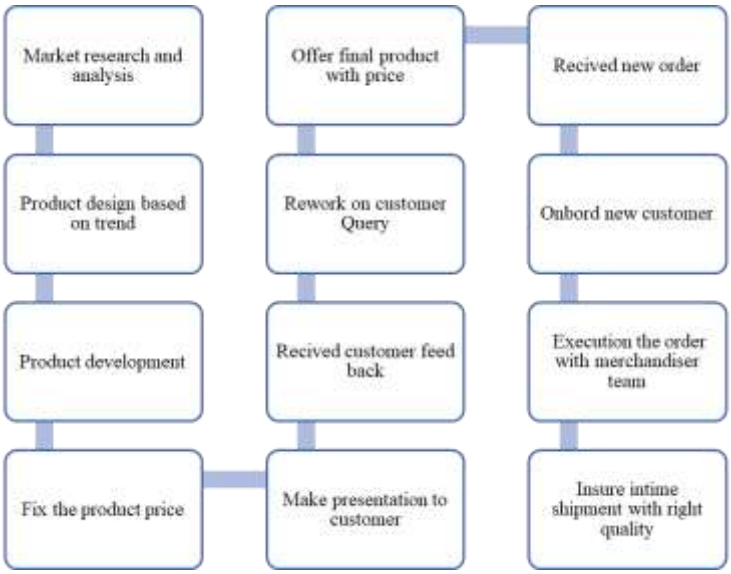


*Figure 4: Working Flowchart of Marketing Team (Source: PABL)*

From my observations, the merchandiser plays a central role in coordinating the entire order process from beginning to end. It is often said that the merchandising department is the heart of a garment manufacturing organization. From receiving a customer query to making sure the shipment goes out on time, they are the main person communicating with both internal and external parties. Figure 5 gives the flowchart of this process at PABL.

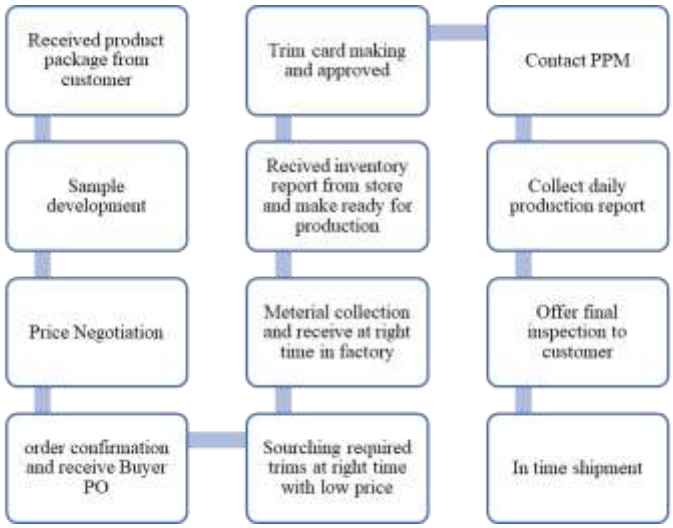


*Figure 5: Working Flowchart of Merchandiser (Source: PABL)*

During my time in this department, I also tried to do a SWOT analysis of PABL based on what I observed. Being an EPZ factory, Progress has a huge chance to grow if it can overcome the major threats. They have good strengths like the SAP-based order execution system, proper SOPs and foreign expatriate expertise. But weaknesses are there too, mainly too much dependency on UK-based customers and focusing mostly on basic styles only [2].

*Table 2: SWOT Analysis of PABL Merchandising Department*

| **STRENGTHS (Internal)** | **WEAKNESSES (Internal)** |
|---|---|
| • Focus on women's empowerment<br>• Young, energetic, and dedicated team<br>• Highly self-motivated team members<br>• Established Standard Operating Procedures | • Lack of marketing-oriented personnel<br>• High dependency on internal sourcing vertical<br>• Over-reliance on UK-based customers<br>• Preference for basic styles only |
| **OPPORTUNITIES (External)** | **THREATS (External)** |
| • Potential to develop US-based customers<br>• Opportunity to adopt complex styles<br>• Build business with direct customers<br>• Leverage PDS Group global network | • High raw material prices<br>• Extended lead times for sourcing fabrics<br>• Shortened lead times for executing orders<br>• Fast-moving fashion trends |

## 2.2 Production Management

In the Production Department, I learned about capacity utilization, improving efficiency, cost minimization, producing at the right time, maintaining correct quantity, and ensuring quality. There are four sections under production, which are cutting, sewing, washing, and finishing. For new line setups, I learned how the IE department provides the layout and how machines are placed according to the sample and layout paper. I also saw how workers are assigned based on their skills.

Within the factory, the sewing section is often considered the core of garment manufacturing operations.

Figure 6 shows the sewing floor layout. Currently, 2,650 people are working in the sewing section across 45 lines.

*Figure 6: Sewing Section Layout (Source: PABL)*

One of my responsibilities was assisting with daily manpower balancing. When an operator was absent, I helped identify multi-skilled operators who could temporarily perform the required task. Sometimes processes had to be merged across lines. The afternoon shift was more complicated because line margins also had to be considered. Initially, it was difficult for me to keep track of many operators and their skill sets, but after a few days it became easier to manage.

**Cutting Section**

The cutting section has modern equipment, including auto spread machines and four laser cut machines. Despite having a small workforce of only 135 people the daily output of this section is 35,000 pieces which I found quite impressive. Table 3 shows the detailed manpower breakdown.

*Table 3: Cutting Section Manpower Summary*

| **Operation Area-wise Designation** | **No. of Persons** |
|---|---|
| Assistant Manager/Manager | 2 |
| Asst. In-charge / Executive | 7 |
| Asst. In-charge / Executive (QC) | 4 |
| Bundle Writer Asst. | 8 |
| Bundling Man Asst. | 15 |
| Cutting Asst. | 3 |
| Cutting Operator | 4 |
| Fabric Inventory | 5 |

| Operation Area-wise Designation | No. of Persons |
|---|---|
| Fabric Receive & MR | 5 |
| Fabric Unrolling | 9 |
| Marker Tech/Table Leader | 8 |
| Pad Punch | 12 |
| Spreading Asst. | 20 |
| Spreading Operator | 10 |
| Sticker Man Asst. | 15 |
| Supervisor | 8 |
| **Total** | **135** |

Figure 7 shows the cutting section and the equipment they use for daily cutting operations.

*Figure 7: Cutting Section Operations (Source: PABL)*

**Case Study: Sewing Line Efficiency Improvement**

In the case of Line number 12, a cargo pant order of 25,000 pieces was being produced with an SMV of 22 minutes. In the first week, the line efficiency was only 42%. As per Industrial Engineering team, the main problem was operator skill gaps and line weren't balanced. I followed how they decided to balance operators and adjust the work layout. The bottleneck operation was the back pocket attachment. They also give helpers support for critical operations. I worked on monitoring the hourly production data in this process. Finally, after five days, efficiency now came

to 58%, daily output also improved from 480 pieces to 690 pieces and WIP inventory went down. My work mainly involves tracking production data and monitoring the improvement process; through this, I got valuable practical learning.

*Table 4: Sewing Line Efficiency Improvement (Line 12)*

| Week | Efficiency % | Daily Output (pcs) |
|---|---|---|
| Week 1 | 42% | 480 |
| Week 2 | 51% | 610 |
| Week 3 | 58% | 690 |

## 2.3 Planning and Pre-Production

The Planning Department works for confirming materials, manpower, and machine capacity are available before the start of bulk production. During my observation time there, I worked to review TNA data, checking whether fabric was in-house or not at the factory on time, and helping in preparing line production plans. In these tasks, which mainly involve checking and verification, they assist me in understanding the value of proper planning before bulk production starts.

It's challenging when the factory needs to handle 1mn pieces per month and there was a risk of the sewing floors getting overloaded with missing schedules. I worked looking at the capacity data for all 45 sewing lines and seeing if there was an opportunity to change styles in other areas. We solved this by giving some styles to plan other floors that had less workload and it helped avoid expensive EOT and production started at one time.

## 2.4 Industrial Engineering and Line Balancing

The Industrial Engineering (IE) department performs SMV calculations, identifies cost-reduction opportunities, and works to increase production efficiency. During my work in this department, I practiced cycle time taking, production studies, thread consumption calculations, operation bulletin preparation, and line layout planning. These were learning exercises for me to learn how industrial engineering helps in production floor.

I observed a good case where a formal trouser line had too many rejections at the waistband joining stage. The breakdown was too critical for the operators. After dividing the complex task into two

simpler operations, SMV came down by 0.8 minutes, rejection rate dropped by 3% and overall line efficiency improved by 6%.

### 2.5 Quality Assurance and Compliance

In the Quality Assurance Department, I worked and learned about three main types of inspections. First was the cutting final quality inspection, where they use the four-point system. 2nd was a sewing final quality inspection where check was done for puckering, needle cut, shade problems, and measurement issues. Third was finishing the final quality inspection, including the Getup check, audit, and four-point garments measurement system. I was mostly taught by the QC inspectors and learning how they find defects.

There was one situation where a pre-shipment inspection showed a defect rate of 4.5%, which was way above the 2.5% AQL limit. The main issues were skipped stitches and shade differences in the fabric. The QC team made decisions to create a defect analysis chart to find root causes. They did needle replacement intervals to prevent mechanical stitch errors and ensured shade batches were properly allocated during cutting. I've worked in recording the defect data within this process. After this work, the defect rate came down to 2.1%, and the inspection was passed, and the shipment was approved. Observing how a systematic presentation could resolve a quality issue so quickly was a valuable learning experience.

## Chapter 3: Critical Assessment of Internship Work

### 3.1 Application of Generic and Industry-Specific Courses During the Internship

The knowledge gained from my PGD-KIM coursework proved very useful during the internship. Initially, I did not expect to apply so much theoretical knowledge in a real factory environment. The following courses were particularly helpful during my internship experience:

Operations Management: While observing line balancing and floor allocation activities, the capacity planning ideas for this course were very useful for me. When the efficiency problem happened in Line 12, I was able to understand the concept of bottlenecks in a real working environment because I had already studied it in my class

Supply Chain Management: This course helped me understand the work during SAP PO making and fabric booking. Since I already learned how a supply chain works from start to finish, it was easier for me to understand the process. I could also follow how the merchandising and production teams were working together and coordinating their tasks.

Industrial Engineering and Productivity Management: The SMV calculation and efficiency analysis that I learned in this course were directly used on the sewing floor. When I was doing cycle checks and studying production, the ideas of method study and time study became clearer to me. I could understand how these concepts are used in real work.

Analytical Skills and Statistics: This course helped me with quality control work. I needed to understand percentages and defect analysis. When I checked the AQL data and tried to see the defect patterns, the statistical ideas I learned in this course helped me understand the information more easily.

Organizational Behavior: Working across five departments allowed me to observe how teamwork and coordination occur in real organizational settings. It was quite different from what the textbook describes.

Communication Skills: I had to write professional emails and communicate with different departments almost every day. At the beginning, I was not sure how to speak to or address senior managers properly. However, this course had already given me some basic preparation, which helped me communicate more confidently.

## 3.2 Suggestion for Industry Improvement

Based on my observations and experiences during my internship at Progress Apparels Bangladesh Limited (PABL), I believe there are several areas where the company could improve its operations.

1. Advanced Production Planning Software: During my time in the factory, I noticed that line efficiency is mainly monitored through manual records and Excel sheets. If the factory introduces real-time digital dashboards on the production floor, it could help managers quickly identify problems and make faster decisions.

2. Systematic Skill Development Programs: I observed that the factory relies heavily on a few highly skilled operators. When those operators are absent, the performance of the whole line is

affected. Regular training programs for operators across different lines could help improve overall productivity and maintain consistent quality.

3. Market Diversification: From the SWOT analysis I conducted during the internship, I found that most of PABL's orders come from buyers in the UK market. This could be risky if there are changes in that market. Expanding into other markets, such as the United States, could help the company reduce this dependency.

4. Lean Manufacturing Implementation: The factory management is aware of lean tools such as Kaizen and 5S. However, from what I observed on the production floor, these practices are not always followed strictly. If these methods are applied more consistently, they could reduce waste and improve the working environment.

5. Investment in Sustainable Practices: The global garment industry is increasingly focusing on sustainability. During my internship, I learned that PABL has already taken some steps, such as using solar energy. However, investing more in energy-efficient machines and environmentally friendly practices could make the company more attractive to international buyers

## 3.3 Learning for Self-Improvement

This internship brought many changes to my learning and experience. Before joining Progress Apparels Bangladesh Limited (PABL), I had only a moderate level of theoretical knowledge from textbooks. However, working in five different departments during the internship gave me a much clearer and more practical understanding of how garment manufacturing actually works. I realized that real factory operations are quite different from what we usually learn in the classroom.

On the technical side, I had the opportunity to learn about several important processes. I observed how SAP PO creation is done, how line efficiency is calculated, and how SMV is used in real production. I also learned about production flow analysis, identifying quality defects, understanding line layouts, and reading operation bulletins. These were completely new experiences for me, and I believe it would have been very difficult to understand them properly only from books.

In terms of soft skills, the internship helped improve my confidence a lot. At the beginning, I felt nervous when communicating with senior production managers, and I often hesitated to speak

during discussions. However, with time and regular interaction, my confidence gradually improved. By the end of the internship, I was able to present line efficiency updates in front of the production team. My professional email writing, time management on the factory floor, and ability to deal with work pressure also improved during these three months.

Overall, combining the knowledge from my PGD-KIM courses with this practical experience has given me a stronger foundation for starting a career in the apparel manufacturing industry. After completing this internship, I feel much more prepared and confident about entering the professional field.

# Chapter 4: Conclusion

This internship at Progress Apparels Bangladesh Limited gave me a real idea of how the RMG industry works in practice. Before joining the factory, most of my knowledge came from textbooks and classroom lectures. During these three months, I had the chance to spend time in several departments, including merchandising, production, planning, industrial engineering, and quality. Because of that, I was able to see how these departments depend on each other in day-to-day factory operations.

Many of the concepts that I studied in class started to make more sense once I saw them in the real working environment. For example, topics like production planning, supply chain coordination, efficiency measurement, and quality control were no longer just theories. I could see how these ideas are used to solve real production problems. Watching around 45 sewing lines running with more than 2,600 machines every day was a completely different experience compared to reading about garment production in a book.

As an intern, my role was mainly to observe the work, assist when possible, and learn from the people working there. Even though my responsibilities were limited, the experience helped me understand many practical aspects of factory operations that cannot be learned from classroom study alone.

I would like to express my sincere gratitude to my academic supervisor, my industry supervisor, and the team at Progress Apparels Bangladesh Limited for their guidance and support throughout this internship. Their encouragement made the learning experience much more meaningful for me.

Overall, the PGD-KIM program helped prepare me for this internship, and this practical exposure has made me more confident about starting a career in the apparel manufacturing sector. At the same time, the experience also showed me that there is still a lot to learn, and I look forward to continuing that learning in the future.

# References

[1] BGMEA, “About Garments Industry,” Bangladesh Garment Manufacturers and Exporters Association, 2022. [Online]. Available: https://www.bgmea.com.bd/page/AboutGarmentsIndustry

[2] PDS Group, “Progress Apparels Bangladesh Limited – Company Profile,” PDS Limited, 2024. [Online]. Available: https://www.pdsgroupglobal.com/