

Industry Attachment Report on

One Plus Knitwear Ltd: Focuses on various functional departments

By

Md. Zahidul Alam

1000055605

An internship report submitted to Executive Development Centre, 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 Centre

BRAC Institute of Governance and Development

BRAC University

March 2026

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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 and Signature:

Md. Zahidul Alam

1000055605

Academic Supervisor's Full Name and Signature:

Mohammad Sirajul Islam

Senior Academic Coordinator, BIGD, BRAC University

Letter of Transmittal

Mohammad Sirajul Islam

Senior Academic Coordinator

BIGD, BRAC University

Subject: Submission of Internship Report on One Plus Knitwear Ltd: Focused on merchandising, supply chain, production, operations, maintenance and compliance

Dear Sir,

This is my pleasure to submit my internship report based on my industry attachment with One Plus Knitwear Ltd.

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

I trust that the report will meet the desires.

Sincerely yours,

Md. Zahidul Alam

1000055605

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

Executive Development Centre, BIGD, BRAC University

12 March 2026

Non-Disclosure Agreement

This agreement is made and entered into by and between One Plus Knitwear Ltd as the First Party and the undersigned student at Executive Development Centre, BRAC Institute of Governance and Development, BRAC University as the Second Party. The First Party has allowed the Second Party to complete three months long internship in partial fulfillment of the requirements for the degree of Post Graduate Diploma in Knitwear Industry Management. The Second Party will have the opportunity to work closely with the company's officials and access official data and information. Based on work experience and data, data, and information collected during the internship, and Party will prepare an internship report. The Second Party will use all sorts of data and information for academic purposes and will not disclose to any party against the interests of the First Party.

Student's Full Name and Signature:

Md. Zahidul Alam

1000055605

Industry Supervisor's Full Name and Signature:

Md. Mustafizur Rahman Mazed

General Manager, Production

One Plus Knitwear Ltd

Acknowledgment

I would like to express my sincere gratitude to the management of the knitwear factory for providing me with the opportunity to complete my internship and gain practical industrial experience in the Ready-Made Garments (RMG) especially in the knitwear sector. This internship has been an invaluable learning experience that allowed me to understand real-life manufacturing operations and professional working environments.

I am especially thankful to my both respected supervisors. My academic supervisor has guided me effectively connects academic learning with practical industrial experience. The supervisor provides Overall academic guidance and monitors the progress of the student throughout the internship period. I am also thankful to all department heads, engineers, merchandisers, and all factory personnel of the HR and Admin, Merchandising, SCM, Knitting, Cutting, Sewing, Dyeing, Printing, QC, Finishing, Packaging, Industrial Engineering, Electro-Mechanical Engineering, and Compliance departments for their continuous guidance, cooperation, and support throughout the internship period. Their practical knowledge and willingness to share experience greatly contributed to my learning.

I would also like to convey my heartfelt appreciation to my academic supervisor and respected faculty members for their valuable instructions, encouragement, and academic support in preparing this internship report.

Finally, I express my gratitude to everyone who directly or indirectly assisted me during the internship and helped make this learning journey successful and meaningful.

Executive Summary

This report describes my internship experience at One Plus Knitwear Ltd., where I had the opportunity to observe and learn about the operational activities of a knitwear manufacturing factory. The internship helped me understand how different departments work together to complete garment production for international buyers.

During the internship period I rotated through several departments including merchandising, supply chain management (SCM), knitting, cutting, sewing, quality control, finishing, packaging, industrial engineering, electro-mechanical engineering, and compliance.

Observing these departments helped me understand the full production chain starting from order development and raw material sourcing to final shipment preparation.

The experience helped me connect theoretical knowledge from my PGD-KIM program with real industrial practices. I also learned the importance of communication, teamwork, production planning, and quality control in meeting buyer requirements and shipment deadlines.

The chapter-1 introduces the background and purpose of the internship program. It explains the importance of industrial training in bridging academic knowledge with practical industry experience. The chapter also outlines the objectives, scope, and methodology of the internship, as well as a brief overview of the Ready-Made Garments (RMG) sector in Bangladesh.

The chapter-2 introduces the background and purpose of the internship program. It explains the importance of industrial training in bridging academic knowledge with practical industry experience. The chapter also outlines the objectives, scope, and methodology of the internship, as well as a brief overview of the Ready-Made Garments (RMG) sector in Bangladesh.

The chapter-3 describes internship activities and departmental experience. It

explains the key responsibilities, processes, and operational activities observed in departments such as Merchandising, SCM, Knitting, Cutting, Dyeing, Printing, QC, Finishing, Packaging, IE, Electro-Mechanical Engineering, and Compliance. The chapter highlights the workflow and coordination between departments in the garment production process.

The critical assessment of internship experience in Chapter 3 evaluates the internship experience by analyzing what went well and what challenges were observed in each department. It identifies operational strengths, areas of improvement, and factors affecting efficiency and productivity within the organization.

The learning outcomes and application of academic knowledge explains how theoretical concepts learned in academic courses such as Supply Chain Management, Industrial Engineering, Production Planning, and Quality Management were applied in real industrial practices during the internship.

Recommendations and Self-Improvement presents suggestions for improving factory operations, management practices, and productivity. It also reflects on personal learning outcomes and identifies areas for self-development and future career growth.

The Chapter 4 concludes the report summarizing the previous three chapters.

Keywords:

Merchandising; Supply Chain Management (SCM); Knitting; Cutting; Sewing;Dyeing, Printing; Quality Control (QC);Finishing; Packaging; Industrial Engineering (IE);Electro-Mechanical Engineering; Fire Safety, Compliance and Sustainability.

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List of Acronyms

ACCORD	Accord on Fire and Building Safety in Bangladesh
ALLIANCE	The Alliance for Bangladesh Worker Safety
AQL	Acceptable Quality Level
BNBC	Bangladesh National Building Code
CM	Cutting and making
DIFE	Department of Inspection for Factories and Establishments
EOQ	Economic Order Quantity
ERP	Enterprise Resource Planning
GRN	Goods receive note
GSM	Grams per Square Meter
HR	Human resources
IE	Industrial Engineering
LEED	Leadership in Energy and Environmental Design green building rating system
MRP	Material requirement plans
NFPA	The National Fire Protection Association
PPC	Production planning and control
PR	Purchase order
PO	Purchase order
PP	Pre-production
PPE	Personal protective equipment
QC	Quality control
RMG	Ready-Made Garments
RSC	RMG Sustainability Council
SCM	Supply Chain Management

SOP	Standard operating procedure
SMV	Standard Minute Values
TNA	Time and Action Plan
USGBC	The U.S. Green Building Council

Chapter 1: Overview of One Plus Knitwear Limited

1.1 Overview of the Company

A young visionary leader established One Plus Knitwear Company in 2009. The company started its operations as a buying house back in 2004 in Uttara after that it has started its first factory in Ashulia. It has sister concern Arabi Fashion and A plus knitwear. The chairman of the company is Mrs Arzina khatun and Managing Director is Md. Mustafizur Rahman Mazed. The company's main product is knitting products. It supplies knitting clothes to many renowned factories' as a nominated supplier of the brand.

1.2 Vision and Mission

As the vision, the One Plus Knitwear “focuses on consistently improving its products, responsibilities, and employees. They aim to exceed customer expectations in quality, delivery, and pricing, while also creating an environment for employee growth and innovation. Other goals include enhancing efficiency through sustainable practices and making a positive impact on communities with a diverse global workforce.”

To achieve the vision the company has a mission which is “The company envisions producing high-quality sustainable products to achieve customer satisfaction. They also aim to lead the market by pioneering new designs, reducing reliance on imported materials, and uplifting communities. Building long-term stakeholder value through trust and integrity is also part of their vision.”

1.3 Organizational structure, Organogram, Branches and Departments

The company follows typical structure, organogram of a knitting factory. Here Chairman is the highest post and the company runs under the leadership of Managing Director. There are many functional departments are working closely together to run the company as a team. Every functional department such as Merchandising department , HR and Administration

department ,Supply Chain Management (SCM),production department ,Industrial Engineering (IE), Engineering department etc. has a typical organogram . For example a typical organogram of production department is given below. Here under the leadership of Managing director General Manager runs the department.

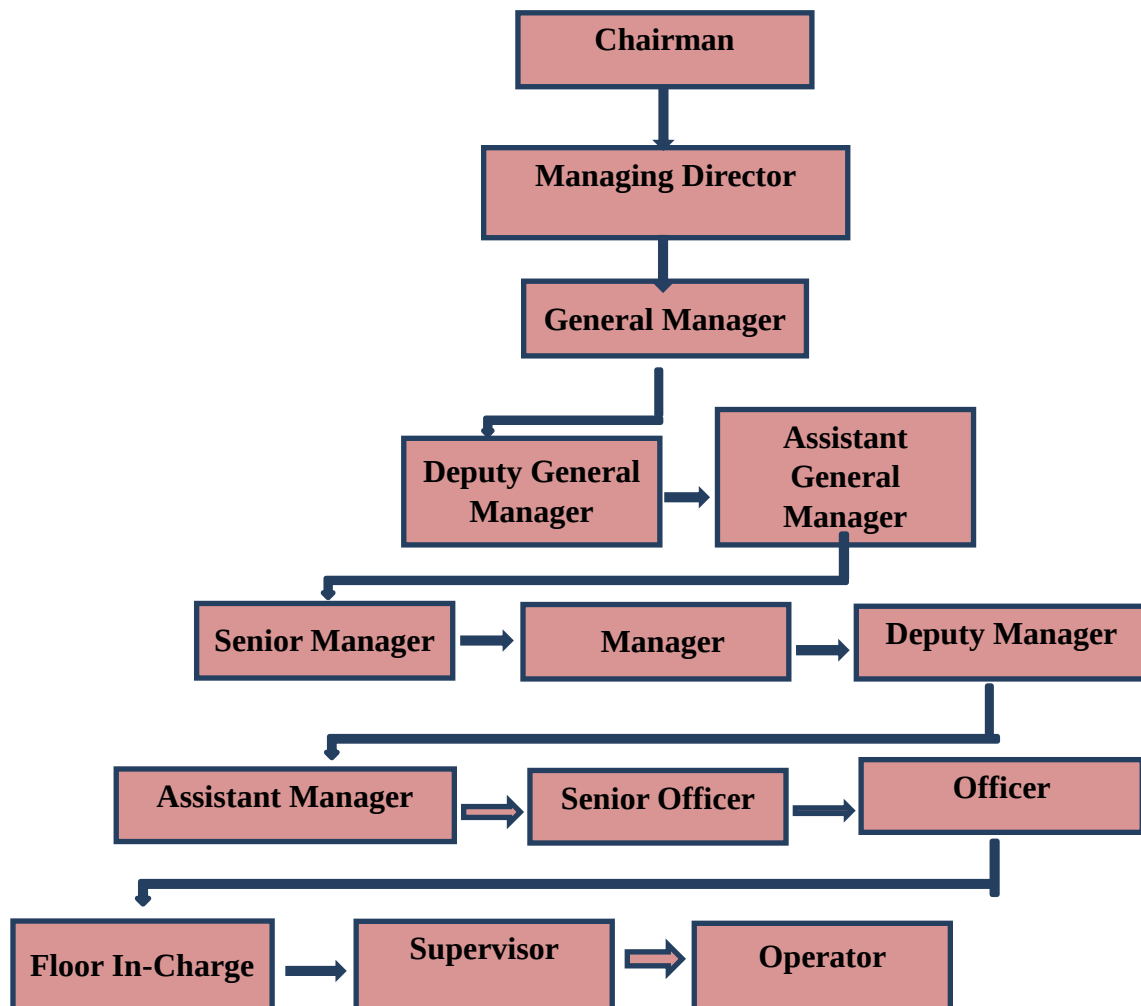


Figure 1: Typical Organogram of Production department

There are some deputy general manager and assistant general manager looks after different responsibilities under the guidance of the general manager. There are different subdivisions which have been run by the senior manager, manager, deputy manager and assistant manager. There are some senior officers and officers works under the managers. In every floor there

works one floor in charge who looks after the supervisor and the supervisors guides the operators and helpers.

The Head office of the company is in Uttara. It has two sister concerns Arabi Fashion and A plus knitwear. The company has following typical departments and functional team knitting department which responsible for the actual fabric production using knitting machines merchandising department which manages customer orders, communication, and coordinates between internal departments.

Production planning and control (PPC) plans and schedules the manufacturing processes.

Quality control (QC) ensures product standards are met at every stage. Commercial/supply chain management handles raw material sourcing, logistics, and inventory control. Human resources (HR) and administration manages employee relations, recruitment, and general administration. Maintenance department oversees mechanical and electrical upkeep of machinery and facilities. Finance and accounts manages all financial operations, budgeting, and reporting.

1.4 Key Products of the Company and Export Destination

The company's main product is knit items. It is the nominated supplier of many global brand and supplies products in the following factories Rizvi fashions ltd, Hams group, Meghna Knit Composite ltd., Pretty Group, Liz Fashion Ltd and few other renowned knitwear factories.

The factory's daily knitting production capacity is 30Ton/day with 60 knitting machines. It can produce all kinds of knitwear products within the required gsm. It can produce any kind of knitwear products in top and bottom items. It also supplies different knitwear products like Kids wear-shirts, polo shirts, Leggings, trousers, joggers etc.

One Plus Knitwear works for some reputed brand like Primark,Aldi,Tesco,KiK,Pepco and exports products different countries in Europe and America .

Chapter 2: Description of Internship Work

I had started my internship on 1st December 2025 and finished it on 28th February 2026. I had spent total 74 days in my internship works. During my internship works I had spent my first 15 days in merchandizing department, then 7 days on supply chain department, 30 days in production floor, 6 days on dyeing and printing department, 3 days on quality control department, 7 days on industrial production department, 3 days on fire safety, compliance and sustainable department and last 3 days my own workplace engineering department.

The details of my internship experience are presented below.

2.1 Merchandising Department

I have worked closely for 15 days with merchandizing teams and gathered knowledge about their responsibilities. The company merchandizing team is basically divided within two teams. One is responsible for international buyer's production and another team is responsible for selling the knitting clothes to different renowned knitwear factories and buying houses as the nominated supplier of international brands.

As a part of international merchandizing team my understanding about a merchandiser works as a bridge between the factory and the buyer. Merchandisers do not produce garments; they make sure garments get produced correctly, on time, and at the right cost. They manage the order from the first email to final shipment. The company merchandizing team follows a standard operating procedure (SOP). As a merchandiser I have to do buyer communication and order development, costing and price negotiation, sampling and product development, order confirmation and TNA planning, raw material sourcing and follow-up, bulk production coordination, quality assurance and buyer approval, shipment and documentation support, post-shipment follow-up.

The local merchandizing team (Sales and Marketing) visits frequently the buying house, knitwear factories and following the above SOP for the local order. Both the teams sit at Uttara head office and frequently visit factories as per SOP.

I spent about 15 days in the merchandising department. This department works as the main communication link between buyers and the factory. Merchandisers are responsible for coordinating different activities such as order confirmation, sample development, costing preparation, and production follow-up.

At the beginning of the process the merchandisers analyze buyer tech packs, measurements, fabric specifications, and shipment deadlines. Based on this information they prepare a Time and Action (TNA) plan to track each stage of production.

I also observed the preparation of development samples, fit samples, size- set samples, and pre-production samples. The merchandising team follows up with the sample section to ensure that samples are produced accurately and sent to buyers for approval on time.

Another important activity from this department I understood was the preparation of costing sheets. Fabric consumption, trims cost, CM (cutting and making), washing, and overhead costs are calculated before negotiating the final price with buyers.

Now understood how merchandisers coordinate with knitting, dyeing, cutting, sewing, and finishing departments. The supervisors explained the importance of regular production monitoring and updating buyers regarding order status.

I understood inline and final inspection processes. I also gained basic knowledge about export documentation such as commercial invoice, packing list, and shipment booking procedures.

2.2 Supply Chain Management (SCM) Department

Then the next 7 days I have work closely with SCM team gathered knowledge about their responsibilities. During my internship in the SCM department I observed how raw materials

are sourced and supplied to production departments. The SCM team prepares material requirement plans based on confirmed orders and production schedules.

I learned about purchase requisition, purchase order preparation, and supplier follow-up.

The team communicates with both local and international suppliers to ensure timely delivery of yarn, trims, dyes, and accessories. Warehouse operations such as goods receiving, inspection, and stock monitoring were also observed. Proper inventory control helps prevent production delays caused by material shortages.

From this department I understood how the SCM department communicates with local and international suppliers to ensure timely delivery of raw materials. The supervisors explained about lead time management and follow-up procedures to avoid production delays.

I visited the warehouse section and observed goods receiving procedures, material inspection, and storage systems. The supervisors explained about stock maintaining systems and how the SCM team tracks inventory levels to prevent shortages or excess stock. Now I understood how SCM coordinates with knitting, dyeing, and sewing departments to ensure uninterrupted material supply. I understood the importance of synchronizing procurement with production planning.

I gained basic knowledge of supply chain documentation such as purchase requisition (PR), purchase order (PO), goods receive note (GRN), and stock reports. I also observed how data is recorded and monitored for efficient supply chain control. However, due to the short duration of the internship, my involvement was mainly observational. I had limited opportunities to participate in decision-making or advanced supply chain software operations. I also observed certain challenges such as occasional delays from suppliers and communication gaps during urgent production schedules. These issues highlighted the importance of proper forecasting, digital tracking systems, and efficient interdepartmental coordination.

Generally, the internship was highly beneficial in connecting theoretical knowledge with practical application. It strengthened my understanding of supply chain operations in the knitwear sector and improved my professional skills, including communication, analytical thinking, and teamwork. Despite time limitations, the experience significantly enhanced my practical knowledge and preparedness for a future career in supply chain management.

2.3 Production Departments

After that I have worked for 30 days different departments in production floor. I have worked there in knitting department, cutting department, sewing department, finishing department, quality control (QC) department. The experience is given below.

I worked for about 14 days in the knitting department where yarn is converted into grey fabric. This is the first stage of garment production in a knitwear factory. I observed different circular knitting machines such as single jersey, rib, and interlock machines. Operators explained machine parts including needles, cylinder, feeder, and creel system.

Fabric quality was monitored regularly. Common defects such as needle lines, holes, oil stains, and GSM variation were checked before sending the fabric to the dyeing process.

Another important aspect was yarn feeding and creel setup. The supervisors showed how yarn count and composition such as 100% cotton, CVC, and PC affect the quality of knitted fabric.

Fabric inspection was also conducted regularly. Common knitting faults such as needle lines, holes, oil stains, and uneven GSM were checked before sending the fabric to the dyeing section. Although my role was mainly observational, the experience gave me a practical understanding of how yarn is transformed into grey fabric while maintaining quality and production efficiency.

Now understood daily production targets and machine efficiency monitoring. The supervisors explained how knitting supervisors track production in kilograms per machine per shift and how downtime affects Overall output. I gained knowledge about grey fabric inspection. From this department I understood common knitting faults such as needle lines, holes, oil stains, drop stitches, and uneven GSM. I understood the importance of maintaining correct stitch length to control GSM and fabric quality. I understood basic machine maintenance and troubleshooting procedures. The supervisors explained that regular cleaning, needle replacement, and lubrication are essential to prevent fabric defects and ensure smooth production.

The 14 days internship in the knitting department provided valuable practical exposure to the fabric manufacturing process in a knitwear factory. As knitting is the first stage of garment production, this experience helped me understand how yarn is converted into grey fabric while maintaining required GSM, structure, and quality standards.

Another positive aspect was learning about common knitting faults such as needle lines, drop stitches, holes, oil stains, and GSM variation. I realized the importance of regular machine maintenance, needle replacement, and proper yarn feeding to minimize defects. The practical observation of grey fabric inspection enhanced my understanding of quality control at the initial production stage. However, there were certain limitations. Due to the short duration of the internship, my role was mainly observational, and I had limited opportunity for hands-on machine operation. Advanced technical aspects such as detailed machine programming, complex troubleshooting, and efficiency optimization strategies were not deeply covered. Additionally, I understood challenges such as machine downtime and yarn quality issues, which directly affect production output and fabric quality.

The internship significantly improved my technical understanding of knitting operations and strengthened my ability to connect theoretical textile knowledge with real industrial practices.

Despite time limitations, the experience enhanced my analytical skills, practical awareness, and preparedness for a professional career in the textile and knitwear industry.

The cutting department converts knitted fabric into garment components. I observed processes such as fabric spreading, marker planning, and fabric cutting. Marker planning is very important because it helps reduce fabric wastage and maximize fabric utilization. Operators follow marker layouts to cut the fabric accurately according to garment sizes. Proper inspection is carried out before sending cut pieces to the sewing department.

Now I understood how grey or dyed fabrics are prepared for cutting. Fabric spreading involves aligning, straightening, and stacking layers to ensure uniformity. The supervisors explained the importance of avoiding fabric defects, wrinkles, or misalignment to prevent errors in the cut pieces. I gained knowledge of marker planning techniques to optimize fabric usage and reduce wastage. I understood how markers are designed for different garment sizes and styles to maximize efficiency.

I understood manual and automated cutting machines in operation. The supervisors explained how operators follow markers to cut layers of fabric accurately. I also understood the role of cutting supervisors in monitoring speed, safety, and machine maintenance.

Now I understood fabric inspections and the verification of cut pieces against order specifications. The supervisors explained to check for fabric defects, size accuracy, and consistency of cut pieces to ensure smooth sewing production. I gained practical knowledge of how production targets are set and monitored in terms of the number of pieces cut per shift. I understood techniques to improve efficiency while minimizing fabric waste.

The internship in the cutting department provided valuable hands-on exposure to one of the most critical stages of knitwear production. The supervisors explained how fabric preparation, accurate cutting, and quality checks impact sewing efficiency and overall

garment production. The experience strengthened my practical knowledge of production planning, fabric handling, and quality control in a knitwear factory setting.

On my 3days internship in the sewing department, I gained practical exposure to the garment assembly process in a knitwear factory. The sewing department is the main value- adding stage of garment production. Here different garment parts are stitched together using industrial sewing machines. I observed sewing line layout, operator task distribution, and production monitoring systems. Supervisors track daily output and try to remove production bottlenecks.

Quality inspectors check garments in the sewing process to ensure that stitching quality and measurements meet buyer specifications. Now understood sewing line layout and the allocation of operators to different machines according to skill and task. The supervisors explained how workstations are arranged for efficiency and how production supervisors assign operators to specific lines.

From this department I understood daily production targets, output tracking, and machine efficiency monitoring. The supervisors explained how supervisors track the number of garments produced per line, manage line speed, and identify bottlenecks.

I understood here stitching techniques, machine types (lockstitch, over lock, cover stitch), and operator handling. I gained insight into the assembly process, including joining, hemming, and finishing of seams.

The supervisors explained about inline inspection techniques, checking for defects such as loose threads, uneven stitching, incorrect sizing, or misalignment. I also observed corrective measures and the role of quality inspectors in ensuring buyer requirements are met.

Now understood how the sewing team coordinates with cutting, finishing, and merchandising departments to ensure smooth workflow and timely delivery. The supervisors explained the importance of timely material supply and communication between teams to avoid delays.

In my internship in the sewing department provided valuable practical knowledge of garment assembly and production operations. The supervisors explained how production planning, line efficiency, and quality control impact overall knitwear manufacturing. This department mainly focuses on of industrial sewing operations and prepared me for future roles in garment production management.

We don't have in house dyeing facilitating. Our factory does the dyeing works in other factory. On my 3days observation in the dyeing department, I gained a brief insight into the fabric coloring process in a knitwear factory. The dyeing department is responsible for transforming grey knitted fabric into the required colors, ensuring consistency, quality, and compliance with buyer specifications.

Now understood the process of dyeing knitted fabric, including yarn preparation, chemical use, and temperature control. The supervisors explained how these parameters affect color consistency and fabric quality. I understood the preparation of lab dips and their submission to buyers for approval. This process ensures that the dyed fabric matches the required color before bulk production.

The supervisors explained how dyed fabrics are inspected for defects such as uneven color, shade variation, or chemical stains. I understood the importance of proper inspection before moving fabric to the cutting department. Even though the exposure was limited to 3 days, the experience provided a basic understanding of dyeing operations of a knitwear factory. The supervisors explained the importance of color consistency, fabric quality, and buyer approval in the dyeing process, which is essential for subsequent production stages.

In my 3days observation in the Printing Department, I gained brief exposure to the fabric printing process in a knitwear factory. This department is responsible for applying patterns, designs, and logos on knitted fabrics according to buyer specifications, ensuring accuracy and consistency. I understood how designs are applied to fabric using techniques such as screen

printing and rotary printing. The supervisors explained about stencil preparation, color application, and machine operation. I saw how sample prints are prepared and tested for color consistency and design accuracy before bulk production. This ensures that buyer requirements are met. Although the duration was limited to 3 day, the experience provided a foundational understanding of fabric printing operations. The supervisors explained the critical role of accuracy, color consistency, and quality control in ensuring that printed fabrics meet buyer specifications and are ready for production.

From this department I understood inspection procedures to detect defects such as misaligned prints, color variations, or incomplete designs. The supervisors explained that quality checks are crucial before sending printed fabric to cutting and sewing sections.

From my 3days internship in the quality control (QC) department, I gained practical exposure to the quality inspection and control processes my factory. The QC department ensures that fabrics and garments meet buyer specifications, industry standards, and defect-free production before shipment.

The QC department ensures that products meet buyer quality requirements. I observed fabric inspection, inline inspection during sewing, and final inspection before packing.

Inspectors check for defects such as measurement variation, loose stitching, fabric faults, and appearance issues. Defective items are separated for correction before final shipment.

Here I understood how knitted and dyed fabrics are inspected for quality issues such as GSM variation, color inconsistency, holes, and defects before cutting or printing. The supervisors explained about measurement verification, sampling methods, and documentation procedures. I understood the inline inspection process in sewing and production, where inspectors check stitching, seam alignment, sizing, and minor defects in garments. The supervisors explained the importance of monitoring production at every stage to minimize rework and wastage.

Here, I understood the final inspection process before packing and shipment. The supervisors explained how garments are checked for buyer specifications, AQL (Acceptable Quality Level) standards, and overall appearance. Any defective items are documented for corrective measures. The supervisors explained how the QC team records defects, communicate with production and merchandising teams, and ensure corrective actions are implemented to maintain quality standards.

The 3 days experience in the QC Department provided practical insight into quality assurance in a knitwear factory. The supervisors explained the importance of defect monitoring, inspection procedures, and maintaining buyer standards to ensure high-quality garments. This experience strengthened my understanding of quality control processes and their critical role in production efficiency and customer satisfaction.

On my 7 days internship in the finishing department, I gained practical knowledge about the final stage of garment production of my factory. The finishing department plays a vital role in preparing garments for shipment by ensuring proper appearance, measurement accuracy, and compliance with buyer requirements before packing. In the finishing department garments are pressed, inspected, folded, and prepared for packing. Proper ironing improves garment appearance and presentation.

After finishing, garments move to the packaging section where they are folded, packed in polybags, labeled, and arranged into export cartons according to buyer packing instructions.

The supervisors explained about steam ironing and pressing techniques used to improve garment appearance. Proper temperature and handling were maintained to avoid fabric damage and maintain garment shape. Now understood measurement checking according to buyer specification sheets. Garments were inspected for size accuracy, workmanship, and Overall appearance before approval for packing. Now I understood garment folding methods

based on buyer instructions. The supervisors explained about polybag packing, size assortment, carton preparation, and labeling procedures required for export shipment. The internship in the finishing department provided valuable exposure to the final production stage of knitwear manufacturing. I understood how proper finishing, inspection, and packing directly influence product quality and buyer satisfaction. This experience enhanced my practical knowledge of garment handling and shipment preparation in the knitwear industry. In my 3days internship in the packaging department, I gained practical exposure to the final stage of garment preparation before shipment in a knitwear factory. The packaging department ensures that finished garments are properly packed, labeled, and arranged according to buyer requirements to maintain product quality in transportation and delivery. I understood garment folding methods based on buyer instructions and packing manuals. Garments were carefully placed into polybags to protect them from dust, moisture, and damage in transportation. The supervisors explained about attaching price tags, size stickers, barcode labels, care labels, and brand tags according to buyer specifications. Proper labeling ensures easy identification and retail readiness. Now I understood size and color assortment procedures before carton packing. Garments were packed into export cartons following packing ratios and buyer packing lists to maintain shipment accuracy. The supervisors explained about carton sealing, marking, and numbering processes. Carton information such as style number, size range, quantity, destination, and shipment details were printed or labeled on cartons. Here I understood coordination between packaging, QC, finishing, and commercial departments to ensure that packed goods were ready for final inspection and shipment. The 3days internship in the packaging department provided valuable knowledge about the final preparation of garments for export. The supervisors explained how accurate packaging, labeling, and carton management ensure product protection and buyer satisfaction. This

department mainly focuses on of shipment preparation and the importance of maintaining packaging standards in the knitwear industry.

2.4 Industrial Engineering Department

Throughout my seven days internship in the industrial engineering (IE) Department, I gained practical knowledge about production efficiency improvement, workflow optimization, and productivity measurement in a knitwear factory. The factory has 20 line production capacity.

The IE department plays an important role in ensuring efficient utilization of manpower, machines, and time to achieve maximum production output with minimum cost.

The IE department focuses on improving productivity and production efficiency. I observed line balancing, efficiency monitoring, and workflow optimization in sewing lines.

IE engineers analyze production data and try to reduce idle time and bottlenecks in the production process.

I gained knowledge about sewing line balancing techniques where operations are distributed among operators to minimize bottlenecks and improve workflow efficiency. Now I understood how proper balancing increases line productivity. Now I understood daily production tracking, efficiency calculation, and target achievement analysis. The IE team monitored operator efficiency, line performance, and downtime to identify improvement opportunities. The supervisors explained about workstation layout and workflow arrangement to reduce unnecessary movement and improve production flow within sewing lines.

My internship in the industrial engineering department provided valuable exposure to productivity improvement and production management practices in my factory. The supervisors explained how scientific methods such as time study, line balancing, and efficiency analysis contribute to achieving higher production performance. This experience strengthened my analytical ability and practical understanding of industrial engineering applications in the garment industry.

2.5 Fire Safety, Compliance, and Sustainability Department

Through my three days internship in the fire safety, compliance, and sustainability department, I gained practical knowledge about workplace safety standards, labor compliance requirements, and sustainable practices followed in my factory. This department ensures that factory operations comply with national labor laws, international buyer standards, and environmental regulations to maintain a safe and sustainable working environment.

I have gathered knowledge about Accord, Alliance, RSC, DIFE and other buyer safety recruitments and regulations. I have learned about the fire, structural and electrical safety regulations. Here the supervisors explained about fire door, fire detection and protection systems, active and passive fire protection system. I came to know NFPA and BNBC standards for the RMG sector.

I gained knowledge about factory compliance standards related to working hours, employee welfare, health and safety regulations, and workplace conditions. I understood documentation and monitoring procedures required to meet buyer and regulatory compliance audits.

Now understood safety measures such as the use of personal protective equipment (PPE), safe machine operation guidelines, first aid facilities, and accident prevention practices implemented in different production departments.

The supervisors explained about sustainable initiatives such as energy conservation, waste management, water usage control, and environmental protection measures. The department monitored eco-friendly practices to reduce environmental impact.

I understood how compliance teams maintain records and prepare documents for buyer inspections and third-party audits related to safety, labor standards, and sustainability certifications.

The internship in the fire safety, compliance, and sustainability department provided valuable exposure to safety management and responsible manufacturing practices in the knitwear

industry. I understood the importance of maintaining a safe working environment, ensuring legal compliance, and adopting sustainable operations to meet international buyer requirements. This experience enhanced my awareness of ethical and sustainable industrial practices.

2.6 Engineering Department

The electro-mechanical engineering department maintains factory machinery and utilities such as generators, compressors, boilers, and electrical systems. Preventive maintenance helps reduce machine breakdown and ensures uninterrupted production. In my 3 days internship in the engineering department especially in electro-mechanical engineering department, I gained practical exposure to machine maintenance, utility management, and electrical and mechanical support systems used in my factory. This department plays a vital role in ensuring uninterrupted production by maintaining machinery, power supply, and industrial utilities.

I understood preventive and corrective maintenance activities for knitting, sewing, cutting, and finishing machines. The supervisors explained how regular inspection, lubrication, and spare parts replacement help reduce machine breakdown and production downtime.

I gained knowledge about factory electrical distribution systems, including transformers, generators, control panels, circuit breakers, and wiring systems. I understood how engineers monitor load distribution and ensure continuous power supply during production.

I understood the operation of industrial utilities such as boilers, air compressors, generators, and water pumps. The supervisors explained how steam, compressed air, and electricity are essential for smooth factory operations. Now understood fault detection and troubleshooting procedures for electrical and mechanical problems. Engineers identified machine issues and performed necessary repairs to restore production efficiency.

The supervisors explained about electrical safety practices, machine guarding, grounding systems, and energy-saving initiatives implemented to ensure safe and efficient operation. The 3days internship in the electro-mechanical engineering department provided valuable practical knowledge about maintenance and engineering support systems in a knitwear factory. I understood how efficient machine maintenance and utility management ensure continuous production and operational efficiency. This experience enhanced my technical understanding and prepared me for future involvement in industrial engineering and manufacturing environments.

Chapter 3: Critical Assessment of Internship Work

The company started its operations back in 2009 as nominated supplier of international brands of knitting clothes to different renowned buying house and knitwear factories. After that it opened its own production facilities for exporting products abroad. As the profit margin is higher in exporting abroad the company is focusing now on international business. The internship program provided comprehensive exposure to the operational workflow of a knitwear manufacturing industry through rotations in multiple departments including supply chain management (SCM), merchandising, knitting, cutting, sewing, dyeing and printing, QC, finishing, packaging, industrial engineering (IE), electro-mechanical engineering, compliance and sustainability.

3.1 Critical Assessment of Internship Experience across Various Departments

The internship in the merchandising department provided valuable insight into the coordination and planning functions of my factory. The supervisors explained how merchandisers act as a bridge between buyers and production teams, ensuring that orders are executed according to specifications, cost targets, and shipment deadlines.

One of the key strengths of this internship was understanding the preparation and monitoring of the Time and Action Plan (TNA), sample development process, and buyer communication. I understood how merchandisers coordinate with sourcing, production, and quality departments to ensure smooth workflow and timely shipment. This department mainly focuses on costing, order analysis, and documentation procedures.

However, due to the short duration, my role was mostly observational, with limited involvement in direct buyer communication or decision-making activities. I also noticed challenges such as tight deadlines and dependency on material lead times, which require strong planning and follow-up skills.

The internship improved my understanding of merchandising operations and strengthened my communication, coordination, and analytical skills, preparing me for a professional career in the knitwear industry.

Experience in the Merchandising department enhanced knowledge of buyer communication, order costing, sampling follow-up, and production tracking. It became evident that merchandising acts as the central coordination hub between buyers and factory operations.

Time pressure and frequent order modifications were observed as key operational challenges.

In my internship in merchandising department, I had experienced several buyers handling cases. The merchandisers are working under extreme pressure. The workload is excessive here. The work-life balance is very difficult here. As they are working as a bridge between buyers and the factory, most of the time they have to take the responsibility of failure.

Sometimes the shipments may delay due to various reasons. Then the buyer asked for air shipments which sometimes make losses for the factory. Besides merchandisers are responsible for all types of making samples, conducting different types of laboratory testing both in home and abroad. They have to coordinate all types of booking of different materials and have to give approvals in different stages in production.

During the internship in the merchandising department, several operational activities were performed efficiently, contributing to smooth order execution. The department maintained strong coordination with buyers, production teams, and suppliers, which ensured proper order follow-up and timely decision-making. Merchandisers effectively handled tasks such as order analysis, sample development follow-up, costing preparation, and time and action (TNA) monitoring.

Team cooperation within the department was highly effective, as merchandisers regularly communicated with SCM, production, and quality teams to solve operational issues. Proper

documentation, buyer communication through emails, and systematic tracking of order status supported on-time production planning and shipment preparation.

Despite overall efficiency, some challenges were observed in merchandising operations.

Frequent buyer changes in design, quantity, or delivery schedules created additional pressure on production planning. Communication gaps between merchandising and production departments occasionally caused confusion regarding specifications or priority orders.

Heavy workload and tight shipment deadlines sometimes limited detailed follow-up activities. Additionally, dependency on manual tracking systems in some cases slowed information updates and reporting processes.

The merchandising department played a central role in coordinating factory operations, and the internship experience highlighted both its strategic importance and the need for improved digital coordination and workload management for enhanced efficiency. A major strength of the internship understood interdepartmental dependency within the production chain. The SCM department demonstrated how effective material planning, inventory control, and supplier coordination directly influence production continuity. However, challenges such as delayed raw material delivery and communication gaps highlighted the importance of real-time coordination systems.

In the internship in the supply chain management (SCM) department, effective planning and coordination were observed in raw material sourcing, inventory control, and logistics management. The department ensured the timely procurement of yarn, fabrics, trims, and accessories required for production. Proper communication with suppliers and internal departments helped maintain a continuous production flow. The internship in the supply chain management (SCM) department provided practical exposure to the operational activities of the knitwear industry. The experience helped me understand how procurement,

inventory management, and production coordination are integrated to ensure smooth material flow and timely shipment.

One of the key strengths of this internship was gaining a clear understanding of material requirement planning (MRP), purchase order (PO) procedures, and supplier follow-up processes. Now understood how the SCM team coordinates with merchandising, production, and warehouse departments to prevent material shortages and production delays. The experience also enhanced my knowledge of lead time management and the importance of maintaining strong supplier relationships. Material requirement planning based on production schedules supported efficient stock management and minimized shortages. Warehouse operations such as receiving, storage, and material issuance were systematically maintained, ensuring accurate record keeping and smooth distribution of materials to different production units.

Some operational challenges were also identified within SCM activities. Delays in raw material delivery from external suppliers occasionally affected production schedules and created pressure on manufacturing departments. Dependency on international suppliers increased lead time risks. In certain cases, manual documentation and limited real-time tracking systems slowed information flow and inventory updates. Sudden order changes from buyers also created difficulties in material planning and stock adjustment.

In my internship I had observed that SCM department sometimes fall in troubles due to material shortages, wrong materials received, lack of coordination with commercial department and so on. The SCM Department played a crucial role in supporting uninterrupted production operations. The internship experience highlighted the importance of efficient planning, supplier management, and digital supply chain systems for improving responsiveness and operational efficiency.

In the Knitting, Cutting, and Sewing departments, practical exposure to machine operation, production flow, manpower utilization, and efficiency monitoring helped bridge theoretical learning with real industrial practices. Production bottlenecks, machine downtime, and skill variation among operators were identified as common efficiency constraints.

During the internship in the knitting department, efficient production operations and systematic machine management were observed. The department maintained continuous fabric production through proper machine allocation, yarn feeding, and operator supervision. Modern circular knitting machines were operated by skilled technicians, ensuring consistent fabric output according to buyer specifications. Production planning based on daily targets helped maintain machine utilization and minimize idle time. Regular monitoring of fabric quality such as GSM, stitch length, and fabric appearance contributed to maintaining required standards before sending fabric to the dyeing section. Coordination between SCM and production teams ensured timely yarn availability for uninterrupted knitting operations. Some operational limitations were also identified in the knitting process. Machine downtime occasionally occurred due to mechanical faults or yarn breakage, which affected daily production targets. Variations in yarn quality sometimes caused fabric defects such as holes, uneven loops, or barre marks. In one case, production stopped for 20 minutes because of a yarn breakage in the knitting machine.

Additionally, manual monitoring systems limited real-time efficiency tracking, and production performance largely depended on operator skill levels. Environmental factors such as humidity and temperature control were also observed to influence fabric quality consistency. In my internship I have experienced that in knitting floors there are huge dust and workers have to work between this. The company management arranges masks for them, but they are not used to work wearing masks. In my visit to the knitting floor, I noticed that workers were not comfortable wearing masks because of the hot environment.

The knitting department demonstrated strong operational capability in fabric production, while improvements in machine monitoring, yarn quality control, and automation could further enhance productivity and fabric consistency.

During the internship in the cutting department, systematic fabric preparation and cutting operations were observed, which played a crucial role in maintaining production accuracy.

The department efficiently performed activities such as fabric relaxation, marker planning, spreading, and cutting according to approved specifications.

Proper marker utilization helped minimize fabric wastage and ensured efficient consumption control. Skilled operators handled cutting machines carefully to maintain measurement accuracy and reduce cutting defects. Coordination between merchandising, production, and warehouse teams ensured that correct fabric types and quantities were supplied for cutting as per production planning. Some operational challenges were also identified in the cutting section. Fabric shade variation and defects sometimes created difficulties in fabric spreading, resulting in rechecking or re-cutting. Manual spreading processes occasionally caused uneven layers, affecting cutting precision. Production delays were observed when fabric inspection was not completed properly before cutting. Additionally, dependence on manual handling increased the possibility of human error in numbering and bundling processes.

In cutting department there are risk for cutting and damaging hands , so the workers are instructed to wear metal hand gloves , but the workers sometimes ignoring this and it may injured their hands.

The cutting department operated efficiently in preparing garment components for sewing, though improvements in automated spreading, inspection control, and workflow synchronization could further enhance accuracy and productivity. In the internship in the sewing department, efficient production flow and teamwork were clearly observed. The department operated through organized production lines where operators performed

specialized tasks, contributing to continuous garment assembly. Proper line supervision and coordination among line chiefs, supervisors, and operators helped maintain daily production targets.

Industrial engineering (IE) support in line balancing and work distribution improved productivity and minimized idle time. Quality checkpoints within sewing lines helped identify defects at an early stage, reducing rejection and rework. Skilled operators and standardized operating procedures ensured consistent garment construction according to buyer requirements.

Despite overall efficiency, several operational challenges were observed. Production bottlenecks occasionally occurred due to operator skill variation and uneven workload distribution across sewing operations. Machine breakdowns sometimes interrupted production flow and reduced line efficiency. High production pressure to meet shipment deadlines occasionally affected work pace and quality consistency. Additionally, dependency on manual operations limited productivity improvement compared to automated systems.

In sewing department the workers had to work huge pressure to follow SMV. Sometimes they cannot take proper rest during the work. Sometimes it creates fatigues in their works.

The production floor was very noisy due to the continuous running of sewing machines.

he sewing department played a critical role in garment manufacturing by transforming cut components into finished products. The internship experience highlighted the importance of skilled manpower, proper supervision, and continuous efficiency improvement for achieving production excellence.

The dyeing, printing, QC, finishing, and packaging departments emphasized quality maintenance throughout the manufacturing process. Continuous inspection systems ensured defect control, though maintaining consistent quality under tight shipment deadlines remained challenging.

During the internship in the dyeing department, systematic fabric coloration and chemical processing operations were observed. The department efficiently carried out dyeing processes according to approved shade standards and buyer requirements. Proper machine operation, chemical dosing, and process control helped achieve uniform fabric coloration and required quality standards. Laboratory testing and shade matching procedures ensured that bulk production followed approved sample standards. Coordination between knitting, laboratory, and quality teams supported smooth processing and minimized production interruptions. Skilled technicians closely monitored parameters such as temperature, time, and chemical concentration. Some operational challenges were also observed in dyeing operations. Shade variation and uneven dye absorption occasionally occurred due to fabric quality differences or improper chemical balance. Re-dyeing or correction processes increased production time and operational cost.

High water and chemical consumption were also identified as concerns affecting sustainability and efficiency. Machine downtime and delays in chemical preparation sometimes slowed production flow, especially under tight delivery schedules.

Though in my factory we do not have our own dying factory the company takes help from other factory for doing the dying and washing works. In dying and washing factories the employees has to work under different carcinogenic hazardous chemical which creates different health hazards. Some of the dying factories do not have proper ETP, so they create environmental hazards also.

The dyeing department maintained effective fabric processing performance, while improvements in process automation, resource efficiency, and quality consistency could further enhance productivity and sustainable manufacturing practices.

In the internship in the printing department, efficient execution of fabric and garment printing processes was observed. The department successfully performed printing operations according to buyer-approved designs, color standards, and placement specifications. Proper preparation of screens, color mixing, and machine setup ensured accurate design transfer onto fabrics.

Close coordination between merchandising, sampling, and production teams helped maintain design accuracy and production scheduling. Skilled operators maintained printing quality by controlling parameters such as pressure, color consistency, and curing temperature. Quality checking after printing helped identify defects at an early stage and reduced rejection rates. Some challenges were also observed in printing operations. Color variation and print defects such as smudging, misalignment, or uneven printing occasionally occurred due to improper screen setting or ink consistency issues. Reprinting requirements increased production time and material wastage.

Manual handling in certain printing processes reduced efficiency and increased dependency on operator skill. Additionally, improper drying or curing conditions sometimes affected print durability and quality consistency. Printing factories also use different hazardous chemical and laser lights in their process which can harm the workers severely. The printing department demonstrated strong capability in maintaining buyer design requirements, though improvements in automation, process control, and defect prevention could further enhance efficiency and print quality consistency.

In the internship in the quality control (QC) department, strong emphasis was observed on maintaining product quality throughout different stages of garment production. The department conducted systematic inspections including fabric inspection, inline inspection, end-line checking, and final garment inspection to ensure compliance with buyer specifications. QC personnel closely monitored measurement accuracy, stitching quality,

appearance, and finishing standards, which helped in early detection of defects and reduction of rejection rates. Continuous coordination with production departments enabled immediate corrective actions whenever quality issues were identified. Standard quality procedures and inspection checklists supported consistent monitoring across production lines.

Despite effective monitoring, some challenges were identified in QC operations. High production pressure sometimes limited detailed inspection time, increasing the possibility of minor defects passing through early stages. Quality issues originating from earlier processes such as cutting or sewing occasionally required rework at later stages. Manual inspection dependency also increased the risk of human error and inconsistency in defect identification. Additionally, communication delays between QC and production teams occasionally slowed corrective action implementation.

QC department plays a vital role in this sector. Because without the proper QC if the shipments has been done, it can hamper the company reputation. Generally, the QC Department played a critical role in ensuring product conformity and buyer satisfaction, while further adoption of preventive quality systems and digital inspection methods could improve Overall efficiency and consistency.

In the internship in the finishing department, systematic garment finishing operations were observed, which ensured that final products met buyer standards. The department effectively performed processes such as thread trimming, pressing, ironing, folding, and minor repairs, maintaining product appearance and quality.

Coordination with QC and production departments allowed prompt handling of defects identified during finishing. Skilled operators efficiently completed ironing and pressing, ensuring consistent garment shape and presentation. Proper folding, polybagging, and packing practices helped maintain shipment readiness while reducing damage during transportation.

Some operational challenges were also observed in the finishing section. Tight production schedules sometimes resulted in rushed finishing, which could compromise garment presentation. Occasional minor defects from sewing or cutting required rework, delaying the finishing process. Finishing department coordinators with QC and packaging department to complete the works. It doing all the necessary works required for finishing. The finishing department successfully prepared garments for shipment while maintaining quality standards, though improvements in workflow automation and rework management could further enhance efficiency and consistency.

In the internship in the packaging department, systematic packing operations were observed that ensured garments were ready for shipment while maintaining quality and buyer requirements. The department effectively performed activities such as folding, polybag packing, labeling, size and color assortment, carton packing, and final inspection.

Coordination with QC and finishing departments ensured that only defect-free garments were packed. Proper labeling, tagging, and carton marking maintained compliance with buyer specifications and facilitated easy identification. Skilled operators efficiently managed folding and packing, maintaining consistent presentation and reducing shipment damage risk. Despite overall efficiency, some challenges were observed in the packaging process. Manual handling during folding, polybagging, and carton packing increased dependency on operator skill, sometimes causing inconsistencies in presentation. Time pressure due to tight shipment deadlines occasionally led to rushed packing, increasing the risk of errors.

Limited automation in carton sealing and labeling slowed high-volume packing operations. Delays in receiving final inspected garments from the finishing or QC departments occasionally created bottlenecks in packing workflow. The packaging department played a critical role in preparing garments for shipment, maintaining quality and buyer compliance,

while further adoption of automation and workflow optimization could improve efficiency and reduce error rates.

Exposure to industrial engineering (IE) highlighted productivity improvement techniques such as line balancing and work measurement, while the electro-mechanical engineering department demonstrated the critical role of preventive maintenance in minimizing machine breakdown. Additionally, the fire Safety, compliance, and sustainability department reinforced the importance of workplace safety, environmental responsibility, and international compliance standard.

During the internship in the industrial engineering (IE) Department, the focus was on improving production efficiency, reducing bottlenecks, and optimizing resource utilization. The department effectively conducted time studies, work measurement, and line balancing for sewing lines, which helped maintain steady production flow and improve operator productivity. Daily monitoring of efficiency reports and analysis of production data enabled quick identification of underperforming lines or operators, allowing timely corrective actions. Coordination with production supervisors ensured that workflow layouts, workstation arrangements, and manpower allocation were optimized to minimize idle time and reduce wastage. Proper documentation of Standard Minute Values (SMV) and performance tracking also helped in accurate target setting and performance evaluation. Despite strong efficiency monitoring, some challenges were observed in the IE operations. Production pressure and tight shipment deadlines sometimes limited the time available for detailed analysis and improvement planning. In certain cases, operator resistance to new work methods slowed the implementation of efficiency improvements. Manual data recording and limited digital monitoring systems also reduced the speed of performance analysis. Additionally, variations in operator skill levels sometimes created difficulties in maintaining balanced production lines.

Generally, the industrial engineering department played a key role in improving productivity and production efficiency. With further adoption of digital monitoring systems and continuous workforce training, the department could enhance operational performance even more. In the internship in the electro-mechanical engineering department, efficient maintenance and technical support activities were observed that ensured smooth factory operations. The department was responsible for maintaining different machines such as knitting machines, sewing machines, cutting machines, and finishing equipment. Regular preventive maintenance helped reduce unexpected machine breakdowns and ensured continuous production.

Engineers and technicians closely monitored electrical systems, generators, air compressors, boilers, and other factory utilities. When mechanical or electrical problems occurred, the technical team quickly identified the faults and carried out necessary repairs. Their quick response helped minimize machine downtime and maintain production efficiency. Proper safety practices were also followed while handling electrical systems and machinery.

Some challenges were also observed in the electro-mechanical engineering department. Occasionally, machine breakdowns occurred due to heavy machine usage or aging equipment, which affected production for a short period. Spare parts were sometimes not immediately available, causing delays in repairs.

In some cases, maintenance records and monitoring systems were still partially manual, which slowed data tracking and maintenance planning. Additionally, high production pressure sometimes limited the time available for detailed preventive maintenance activities.

In my internship I have observed that preventive maintenance can reduce the engine breakdown. It can save a lot of money, time and reputation also. Sometimes the company

management thinks that, preventive maintenance is a burden cost for them but it can be a good investment for the company in the long run.

Generally, the electro-mechanical engineering department played a crucial role in maintaining factory machinery and utilities. Improvements in preventive maintenance planning spare parts management, and digital monitoring systems could further enhance equipment reliability and production efficiency. In the internship in the fire safety, compliance, and sustainability department, several strong practices were observed that ensured a safe and compliant working environment. The department effectively monitored workplace safety, fire prevention systems, and compliance with labor laws and international buyer standards. Regular fire drills, safety inspections, and emergency preparedness exercises were conducted, enhancing employee awareness and readiness.

Sustainability initiatives such as energy conservation, waste management, water treatment, and eco-friendly practices were implemented systematically. The compliance team maintained proper documentation and audit readiness, ensuring the factory consistently met regulatory and buyer requirements. Close coordination with production and HR departments ensured safety and compliance measures were integrated into daily operations.

Some challenges were observed despite strong systems. Employee adherence to safety protocols varied across departments, occasionally requiring repeated awareness sessions. Fire safety equipment maintenance and periodic checks sometimes faced scheduling delays due to operational pressure. Monitoring the effectiveness of sustainability measures such as water and energy consumption needed more real-time data tracking.

After the Tazrin Garments and Rana Plaza incidents, the Accord and Alliance has done a tremendously works in fire, structural and electrical safety in our RMG sector. In some extends it change the definition of compliance in this sector. Generally, the fire safety, compliance, and sustainability department successfully ensured a safe, compliant, and

environmentally responsible working environment, while further improvements in real-time monitoring and continuous employee training could enhance effectiveness.

Generally, the internship successfully integrated academic knowledge with industrial application. While operational efficiency and coordination remain areas for improvement, the cross-departmental learning experience significantly enhanced practical understanding of knitwear manufacturing operations and professional readiness for the RMG industry.

As the factory is not totally composite factory, for completing order it has to depend on other factories for dyeing, complex printing and other works. It consumes time and sometimes creates problems as the shipping deadline is fixed. So company should focus on building composite factory to earn maximum profit from the buyers.

3.2 Application of Generic and Industry-Specific Courses during Internship

From generic courses, knowledge of principles of management helped me understand organizational structure, departmental coordination, and decision-making processes.

Organizational Behavior supported my understanding of teamwork, leadership, and communication within cross-functional teams. Business communication was directly applied while observing email correspondence, buyer communication, and report preparation.

Additionally, basic Accounting and Finance knowledge helped me understand costing elements, profit margins, and budget considerations in garment orders. Computer skills, particularly MS Excel, were useful in understanding TNA sheets, costing sheets, and order tracking formats. Business development and operations, mathematical analytical skills, projections also help me to understand the knitwear business.

From industry-specific courses such as Merchandising Management, Production and Operations Management, and Supply Chain Management, I applied concepts like Time and Action Plan (TNA), order analysis, lead time calculation, material planning, and production

follow-up. Knowledge of garment costing, fabric consumption, and sampling procedures helped me understand real-life merchandising operations more effectively.

In the internship in the knitwear manufacturing industry, knowledge gained from both generic academic courses and industry-specific technical courses was practically applied across various departments including SCM, merchandising, production, quality, IE, and engineering.

Industry-related courses such as supply chain management, production and operations management, and inventory management were directly applicable during my internship. The concept of material requirement planning (MRP), lead time management, procurement strategies, and supplier evaluation were clearly reflected in daily SCM activities.

From operations management, I understood production planning, workflow coordination, and capacity management. Inventory management theories such as EOQ (Economic Order Quantity) and stock control techniques helped me understand warehouse management and material flow efficiency.

Production Management and merchandising course help me to understand business and economics of knitwear, role of buyers and merchandisers, TNA plan in RMG and product costing. It also helps me to understand fashion, fashion design, fast and sustainable fashion.

Introduction to garments industry knitwear course helps me to understand apparel manufacturing ,knitting ,dyeing ,washing ,cutting ,sewing and printing .It also help me to understand basic concept of costing ,inventory ,working capital, materials management ,commercial finance , budget and budgetary control, project feasibility and capital budgeting.

Industrials engineering helps to understand industrial production improvement. The SCM course helps me to understand the supply chain management.

Furthermore, knowledge of Bangladesh RMG industry structure helped me understand the importance of backward linkage industries (yarn, dyeing, and accessories) and global supply chain integration in knitwear manufacturing.

Leadership can play a vital role in our RMG sectors. We not only need good managers but also we need good leaders who can lead us to a sustainable growth in this sector. So that we can achieved the top most position in this sector. Industry-specific courses played a significant role in understanding real factory operations. Subjects related to Textile Engineering, Knit Fabric Manufacturing, Apparel Production Management, Supply Chain Management, Industrial Engineering, and Quality Management helped interpret practical processes such as yarn sourcing, knitting operations, cutting planning, sewing line balancing, efficiency calculation, and quality inspection systems. Engineering-related knowledge assisted in understanding machine maintenance, utility systems, and production efficiency improvement.

Additionally, learning from Compliance and Sustainability courses supported understanding of workplace safety standards, fire protection systems, and environmental practices followed in export-oriented knitwear factories.

Overall, the internship enabled effective integration of theoretical knowledge with industrial practices, strengthening analytical ability, operational understanding, and readiness for professional engagement in the knitwear and RMG sector.

3.3 Suggestions for the Company

Based on the internship experience across various departments of the knitwear factory, the following suggestions are proposed to enhance operational efficiency, productivity, and workplace sustainability

Improved coordination among Merchandising, SCM, Production, and Quality departments can reduce production delays and minimize misunderstandings related to order specifications and delivery schedules.

Implementation of ERP-based production tracking and digital reporting systems can improve real-time monitoring of inventory, production status, and shipment planning.

Regular training programs for operators, supervisors, and technical staff can improve productivity, reduce defects, and increase Overall production efficiency.

A structured preventive maintenance schedule for knitting, sewing, and utility machines should be strictly followed to minimize machine downtime and production interruption.

Quality checking should be emphasized at every production stage rather than relying mainly on final inspection, which will reduce rework and rejection rates.

Greater focus on energy-efficient machinery, waste reduction, water recycling, and eco-friendly chemical usage will enhance compliance with international sustainability standards. Continuous fire safety drills, compliance training, and safety awareness programs should be conducted to maintain a safe working environment for employees.

Further application of Industrial Engineering tools such as line balancing, motion study, and productivity analysis can optimize manpower utilization and reduce operational waste.

The company can set a complete knit composite compliance & sustainable factory, so that we can work with the world's renowned retail fashion brand and take the order of high value higher end products.

We needed sustainable growth in the RMG sector. We have a huge number of LEED certified green factories which we have achieved under following the guidelines of USGBC. We can also working on net zero carbon emission. We can achieve a lot of carbon points and earn a lot of revenues from this sector.

3.4 Learning for self-improvement

The internship experience helped me develop both professional and personal skills. One of the most important lessons the supervisors explained was the importance of time management in the garment industry. Production activities are closely linked with shipment deadlines, so every department must complete its tasks within a fixed time.

Working with different departments also improved my communication and teamwork skills. I had the opportunity to interact with engineers, merchandisers, supervisors, and workers, which helped me, understand how coordination between teams is necessary for smooth production.

Another important learning was problem solving. Now I understood several production challenges such as machine downtime, material delays, and quality defects. Seeing how experienced professionals handled these situations helped me understand how practical solutions are applied in a factory environment.

This internship helped me improve several professional skills. I developed better communication skills by interacting with engineers, supervisors, and workers in different departments.

The experience also helped me understand the importance of discipline and time management in a production environment where shipment deadlines are very strict.

Overall the internship increased my confidence and prepared me for future professional work in the knitwear and garment industry.

Chapter 4: Conclusion

The internship at One Plus Knitwear Ltd provided valuable practical exposure to the operations of a knitwear manufacturing factory. Observing different departments helped me understand the complete garment production process.

The experience successfully connected academic learning with real industrial practices. It improved my practical knowledge, technical understanding, and professional readiness for working in the RMG sector.

Through this internship, I had the opportunity to observe and learn the activities of different departments such as merchandising, supply chain management (SCM), knitting, cutting, sewing, dyeing, printing, quality control (QC), finishing, packaging, industrial engineering (IE), electro-mechanical engineering, and fire Safety, compliance & sustainability. This experience helped me understand the complete production process of knitwear garments, from raw material sourcing to final shipment.

The internship successfully bridged the gap between theoretical knowledge and practical industrial practices. It enhanced my understanding of production planning, quality management, machine maintenance, and workflow coordination. Additionally, the experience improved my professional skills including communication, teamwork, problem-solving, and time management.

Overall, the internship was a significant learning experience that strengthened my technical knowledge, practical skills, and professional confidence. It has prepared me for future career opportunities in the knitwear and apparel manufacturing industry and motivated me to continue developing my skills for professional growth.

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