Assignment

Industrial Visit Report on Arbella Fashions Ltd.

Submitted by:

Naquibuddin Sarkar

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1. Introduction

The **Ready-Made Garment (RMG) industry** is the backbone of Bangladesh's economy, which verily contributes to the country's export earnings and employs millions of workers. Over the past decades, Bangladesh has established itself as the world's one of the leading garment exporters, serving global fashion brands with cost-efficient, high-quality, and increasingly sustainable production.

This report is based on the industrial visit to **Arbella Fashions Ltd.** conducted on **21st August 2025**. The visit provided an opportunity to observe firsthand the operations, technological practices, and management strategies of a modern apparel manufacturing facility.

A distinguishing feature of Arbella Fashions is its **LEED Gold certification**, which places it among the leading environmentally responsible factories in Bangladesh. The company integrates energy-efficient utilities, circular waste management practices, and recycled materials into its operations, aligning itself with global sustainability goals. In addition, Arbella demonstrates a strong focus on worker-centric facilities, offering medical services and childcare programs that create a supportive work environment. Arbella Fashions is specialized in **knit and woven products**. Their product portfolio includes **sweaters, jackets, aprons for chefs, doctors, and nurses, and kitchenware garments**. The company commenced production in late 2021 and has quickly developed a reputation for innovation, sustainability, and worker welfare.

Thus, this report aims to present a comprehensive account of the visit, focusing on Arbella's operations, innovations, sustainability practices while also linking observations to the frameworks of technology management.

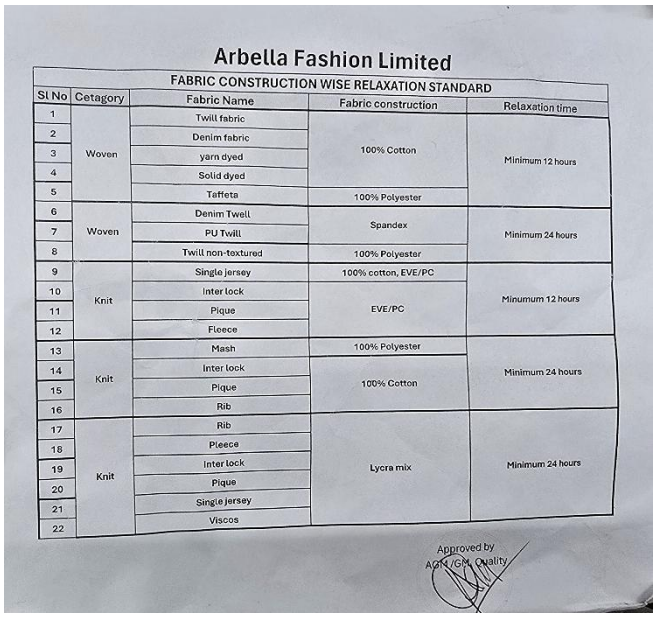
Figure 1: Arbella Fashions Ltd.

2. Basic Features and Operations

The factory operates with **19 production lines**, each equipped with about **60 machines**, giving the facility an overall production of around **25,000 pieces per day**. Arbella serves **11 international buyers**, including prominent brands such as **Chefworks, US Polo, Jack & Jones, and River Island**.

The production process includes:

- **Warehouse and Storage:** Raw fabrics and materials supplied by buyers are stored in a controlled environment. Before entering production, fabrics undergo inspection, relaxation, and testing. Accessories are also checked as per customer requirements. The factory has **two inspection machines** to check fabric quality. After inspection, fabric is **relaxed for about 24 hours** to stabilize before cutting.



Arbella Fashion Limited

FABRIC CONSTRUCTION WISE RELAXATION STANDARD

Sl No	Cetagory	Fabric Name	Fabric construction	Relaxation time
1	Woven	Twill fabric	100% Cotton	Minimum 12 hours
2		Denim fabric		
3		yarn dyed		
4		Solid dyed		
5		Taffeta	100% Polyester	
6	Woven	Denim Twell	Spandex	Minimum 24 hours
7		PU Twill		
8		Twill non-textured	100% Polyester	
9	Knit	Single jersey	100% cotton, EVE/PC	Minumum 12 hours
10		Inter lock	EVE/PC	
11		Pique		
12		Fleece		
13	Knit	Mash	100% Polyester	Minimum 24 hours
14		Inter lock	100% Cotton	
15		Pique		
16		Rib		
17	Knit	Rib	Lycra mix	Minimum 24 hours
18		Pleece		
19		Inter lock		
20		Pique		
21		Single jersey		
22		Viscos		

Approved by
AGM/GM, Quality

Figure 2: Storage Area and Fabric Relaxation Standard.

Figure 3: Fabric Inspection Machine.

- **Cutting Section**

The cutting section at Arbella is primarily manual, handled by skilled operators. Alongside this, the company has installed **one SCADA-based automatic cutting machine**, which is used for specialized precision cutting.

Figure 4: Cutting Section.

- **Sewing Section**

The sewing section forms the core of production, assembling garments according to buyer specifications. Multiple sewing lines ensure parallel processing, supported by a quality control system to catch defects early.

Figure 5: Sewing Section.

- **Finishing Section**

After sewing, garments are ironed, trimmed, packed, and prepared for shipment.

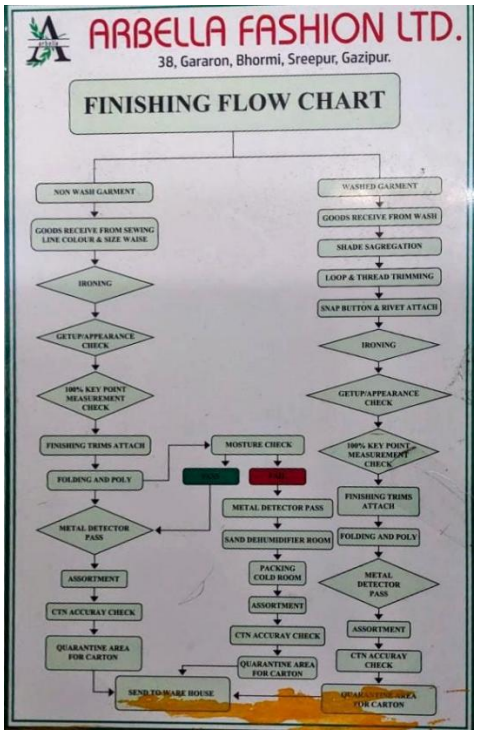


Figure 6: Finishing Flow Chart.

- **Quality Process Flow Chart**

The **quality process flow chart** illustrates the journey of garments from material reception to final shipment.

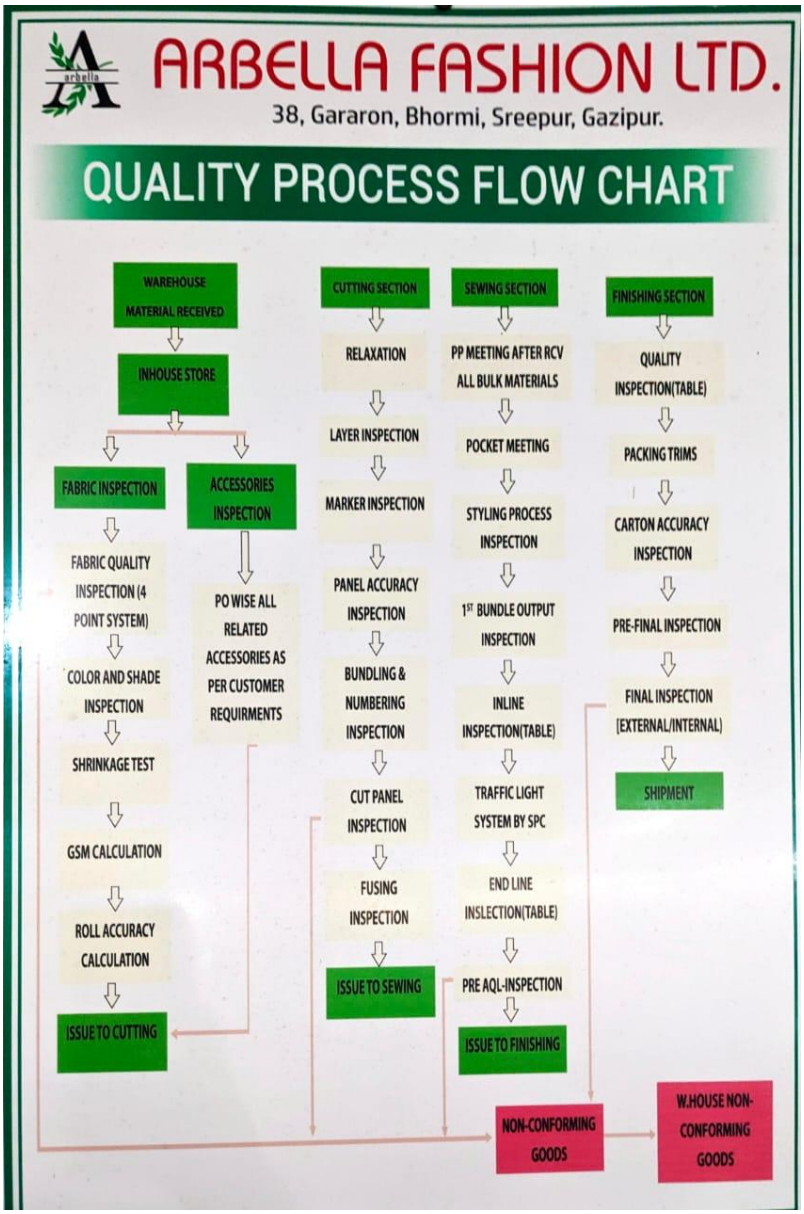


Figure 7: Quality Process Flow Chart.

The flow chart highlights critical checkpoints such as fabric inspection (four-point system, colour/shade check, shrinkage test), accessories inspection, layer inspection, panel accuracy, sewing process inspections, and carton accuracy verification. Non-conforming goods are identified at each stage and segregated to prevent defective items from reaching buyers. This systematic monitoring ensures compliance with international standards and strengthens buyer confidence in Arbella's commitment to quality.

- **Utility and Energy Management**

Arbella Fashions maintains a robust utility section:

a. **Two backup generators**: 650 KVA and 180 KVA. Which ensures uninterrupted production.

b. **Incineration boiler,** disposes of fabric waste through controlled incineration while simultaneously generating heat energy, which is then utilized for ironing and pressing in the finishing section

Figure 8: Incineration Boiler.

c. **Cross-ventilation system** with fan speed adjustments to save energy.

Figure 9: Exhaust Fan.

d. **Underground fire safety pump**, requiring less power compared to above-ground systems.

Figure 10: Underground Fire Safety Pump.

3. Innovation and Invention

Arbella has established an **Invention Section** dedicated to R&D and process improvement. A key innovation is the **automatic sewing device**, developed in-house, which reduces manual workload and improves efficiency.

4. Worker Welfare

The company places high emphasis on worker welfare. A **dedicated childcare centre** has been built where the children of workers can:

- **Study and learn** under professional teachers.
- Engage in **extracurricular activities** like singing, dancing, and art.
- Play outdoors in a **ground with swings and open space**.

This initiative enhances worker satisfaction and productivity by supporting family needs.

Figure 11: Childcare Centre.

5. Medical Facilities

Arbella has an on-site **medical unit** staffed with **one doctor and two nurses**. The facility provides:

- Emergency healthcare.
- Routine checkups.
- Immediate support for accidents or health issues during work.

This system reflects the company's proactive approach to **employee well-being** and workplace safety.

6. Sustainability Practices

Sustainability is a **core focus** of Arbella Fashions:

- Production of **aprons and kitchenware garments from recycled plastic bottles** for Chefworks.

Figure 12: Aprons made from recycled plastic bottles.

- **Waste cloth incineration** to produce heat for reuse.
- **LEED Gold certification**, which validates achievements in energy efficiency, water conservation, and waste reduction.

Arbella's model shows how Bangladeshi garment factories can integrate sustainability into global supply chains.

7. Concepts of Management of Technology

- **Technology adoption**: SCADA-based cutting, automatic sewing devices, and energy-efficient systems.
- **Process innovation**: Waste heat recovery in finishing section.
- **Welfare management**: Worker childcare and healthcare as social technology.
- **Strategic alignment**: Combining sustainability with buyer requirements to remain globally competitive.

This shows how **management of technology** is applied not only in machinery but also in workforce and sustainability practices.

8. Key Learnings and Insights

The industrial visit provided the following insights:

- Hybrid operations (manual + automated) improve flexibility.
- Sustainability is no longer optional; it is a competitive requirement.
- Worker welfare facilities contribute directly to productivity and retention.
- Innovation in-house can reduce dependency on external technology.

9. Suggestions and Recommendations

For similar industries and aspiring entrepreneurs, the following suggestions are relevant:

- Balance manual skills with automation to maximize flexibility and efficiency.
- Expand sustainability initiatives, including renewable energy integration (solar, biogas).
- Strengthen digital tools such as AI-driven quality control or digital twins for planning.
- Invest in R&D units to continuously explore new methods and machinery.
- Develop community-based welfare programs to retain skilled labour in the long term.

10. Overall Impressions and Brainstorming

The visit highlighted Arbella Fashions as a **forward-looking, socially responsible, and innovative factory**.

Brainstormed improvements:

- Implement **AI-based quality inspection** to reduce defects.
- Use **renewable energy sources** to reduce reliance on diesel generators.
- Introduce **IoT-based monitoring** for real-time energy and machine efficiency tracking.
- Expand **recycled product lines** to capture growing global demand for sustainable apparel.