Business Case:

"Management wants a single, interactive Power BI report that shows the complete health of our garments production – from order to shipment – across delivery, quality, efficiency and profit."

Client Business Requirements & Use Cases:

- End-to-end visibility from order to shipment and profit
- Clear tracking of on-time delivery and delay root causes
- Profitability analysis by work order, buyer and product
- Fabric waste and material efficiency monitoring
- Operator productivity and capacity utilization insight
- Planned vs actual cost breakdown by production stage
- Early risk detection for in-progress (processing) work orders
- Integrated view of quality, delivery and profit impact
- Market, buyer and country dependency analysis
- Self-service, real-time reporting instead of manual Excel reports

1. No single view of production health (end-to-end visibility)

Business problem:
Management can't see, in one place, how a work order is doing from **Order → Production → Quality → Shipment → Profit**. Data is scattered across Excel files (planning sheet, production log, QC log, costing sheet).

Pain / gap:

- Too much time spent manually merging data.
- Decisions are based on partial info (e.g., only shipment or only quality).
- Hard to answer simple questions like: "For this WO, did we delay because of cutting, sewing or shipment?"

Requirement / use case:
Build **one integrated Power BI report** that joins WOs, production, quality, cost and profit so managers can see **full process health** in a few clicks, with slicers by buyer, product, WO and country.

2. Limited visibility on on-time delivery & root cause of delays

Business problem:
They know roughly how many orders were late, but not **why**. Delay blame often goes to "factory is slow" without proof.

Pain / gap:

- No breakdown of **which stage** caused delay (pre-prod, cut, sew, QC, pack, ship).
- No distinction between **planning issues vs execution issues**.
- Hard to defend with buyers when they complain about late deliveries.

Requirement / use case:
The report must:

- Track **On-Time Delivery %**, **Late WOs**, and **Average Delay (Days)**.
- Show **Planned vs Actual days by stage** with visual red flags where actual > plan.
- Allow drilling from **summary → specific late WO → late stage** so they can take corrective actions and discuss facts with buyers.

3. Unclear profitability at WO, buyer, and product level

Business problem:
They know total monthly profit, but not **which WOs, buyers, or products are actually profitable or loss-making**.

Pain / gap:

- Some big buyers might be high volume but low or negative margin.
- Some styles may be complex and always go over cost.
- Pricing for next season is often done **blind** because historical profit by style is not clearly visible.

Requirement / use case:
The report should:

- Calculate **Planned vs Actual Profit** per WO, buyer, product, and market.
- Highlight **loss-making orders** with clear red indicators.
- Show **Planned vs Actual Cost per Piece** so merchandising can re-price or reject bad deals in the next booking cycle.

4. Lack of insight into fabric waste and material efficiency

Business problem:
Fabric is one of the biggest cost items, but they don't know exactly **how much is wasted**, or whether it's caused by **cutting** or **quality defects**.

Pain / gap:

- No consolidated view of **Actual Fabric Used vs Planned Fabric Consumption**.
- Hard to know if high cost is due to **bad markers, poor cutting, or high defects/rework**.
- Teams argue without data ("cutting is wasting too much", "no, QC is rejecting too much").

Requirement / use case:
The report must:

- Compute **Cut Waste Fabric**, **Defect Waste Fabric**, and **Total Waste Fabric (M)**.
- Compare waste against **theoretical fabric demand** (shipped qty × fabric per piece).
- Provide a **waste flag** (Good / Bad) when waste exceeds a threshold (e.g., >5%), so they can quickly identify fabric-inefficient WOs or styles.

5. No clear view of operator productivity and capacity usage

Business problem:
Management doesn't have a reliable measure of **how productive operators are** and **where capacity is actually consumed**.

Pain / gap:

- Manpower planning is guesswork: "Add 20 operators" without knowing where they're really needed.
- Cannot easily see **pieces per operator-day** for cutting, sewing, QC, packing.
- Difficult to identify **underperforming orders or products** from a labor perspective.

Requirement / use case:
The report should:

- Calculate **Labor Productivity (pieces per operator-day)** by stage and WO.
- Show **Total Operators Count** and stage distribution (e.g., sewing 70%+, others less).
- Use conditional formatting to flag **low productivity vs target** so supervisors know where to focus training or method improvement.

6. Poor transparency on planned vs actual cost by stage

Business problem:
They build planned costing (pre-cutting, cutting, sewing, QC, packing, shipping, others), but after production they only see **one total cost figure**, not which stage blew up the budget.

Pain / gap:

- Cannot answer: "Did we lose money because of sewing overtime, QC rework, or expensive freight?"
- Stage leaders (cut, sew, QC, pack) are not accountable with clear numbers.
- Cost control is reactive and generic, not targeted.

Requirement / use case:
The report must show:

- **Planned vs Actual cost per stage** (Cutting, Sewing, QC, Packing, Shipping, Others).
- Visual red flags when **Actual > Planned** per stage.
- A **Total Labor vs Total Material vs Others** breakdown to understand **where money is really going**.

7. Difficulty monitoring in-progress (processing) WOs and early risk

Business problem:
They usually discover problem orders only **after they're complete** – when cost and delay are already locked in.

Pain / gap:

- No real-time view of **processing WOs**: how far they've progressed and how much cost is already incurred vs plan.
- Cannot identify **early signals** like:
    - High cost already,
    - Low production progress,
    - Little time left until shipment date.

Requirement / use case:
The report should:

- Enable filtering on **WO Status = Processing**.
- Show for those WOs: **progress by stage, days elapsed vs planned, and profit so far**.
- Highlight **"running loss" or "at-risk" orders** so management can act early (change plan, add manpower, renegotiate, or cancel).

8. No integrated view of quality vs delivery vs profit

Business problem:
Quality, delivery and cost are discussed separately. There is no **combined story** like: "High quality + on-time + profitable" vs "High quality but unprofitable".

Pain / gap:

- QC team focuses on quality score, planning looks at timelines, accounts look at profit – each in isolation.
- Management lacks a **single lens** to see how quality and lead time correlate with profit.

Requirement / use case:
The report must link:

- **Quality metrics** (defects, QC score),
- **Delivery metrics** (on-time %, delay days), and
- **Financial metrics** (profit, margin, cost overrun).
  So they can tell complete stories like:

"This order was on time with great quality, but it lost money due to very high sewing cost."

9. Limited understanding of market & buyer dependency

Business problem:
They know they export to multiple countries and buyers, but don't quantify **revenue concentration and risk** clearly.

Pain / gap:

- Don't see how dependent they are on **certain markets (e.g., Europe)** or on **a handful of big buyers**.
- Hard to justify diversification strategy (e.g., entering new markets) without hard numbers.

Requirement / use case:
The report should:

- Show **Actual Revenue by Shipping Country and Buyer**.
- Provide KPIs like **% revenue from Europe vs Asia vs North America**, and **Top N buyers' share of revenue/profit**.

- Allow slicing quality, delivery and profit **by buyer and country**, so management can see which markets are **strategic vs risky**.

10. Slow, manual reporting & lack of self-service analytics

Business problem:
Traditional reporting is done via Excel exports, manual pivot tables, and static PDFs. Any new analysis request (e.g., "show me only Zara orders shipped to Spain in October") takes time and effort.

Pain / gap:

- Reporting is **slow and not real-time**.
- Decision-makers must ask analysts for every small cut of data.
- High chance of **errors** in manual consolidation.

Requirement / use case:
Deliver a **Power BI self-service report** that:

- Refreshes from the model automatically.
- Lets users slice by **WO, buyer, product, destination, status, month** with no extra work.
- delivers **interactive visuals** they can drill into during meetings (no need to wait for a new Excel file every time they have a question).