Requirements Document
Electronics Retail Sales Analytics Project

Client: Electronics Retail Corporation

Project Duration: January 2024 - January 2026

Document Version: 1.0 | **Date:** February 24, 2026

EXECUTIVE SUMMARY

This Power BI dashboard provides comprehensive sales analytics for a multi-channel electronics retail operation. The solution analyzes 15,000 transactions worth ₹605M across 13 physical stores and one online platform, enabling data-driven decision-making for sales optimization, customer engagement, and operational efficiency.

Key Metrics: 15,000 Orders • ₹605M Revenue • ₹36.4M Profit • 1,000 Customers • 190 Products • 13 Stores

1. BUSINESS OBJECTIVES

- Monitor real-time sales performance across products, stores, and channels
- Identify top-performing products and optimize product mix strategy
- Analyze customer purchasing behavior and lifetime value
- Evaluate store-level profitability and operational efficiency
- Track seasonal trends and enable demand forecasting
- Compare online vs in-store channel performance

2. TARGET USERS

User Group	Primary Needs	Access Level
Executive Management	High-level KPIs, strategic insights	Full Access
Sales Managers	Store performance, targets	Regional/Store View
Marketing Team	Customer segmentation, campaigns	Customer Analytics
Operations	Order fulfillment, logistics	Operational Metrics

3. DATA MODEL

3.1 Star Schema Architecture

The solution uses a star schema with one central fact table and eight dimension tables:

Fact Table

fact_sales (15,000 records): quantity, unit_price, discount_amount, line_total, tax_amount, shipping_cost, profit_amount

Dimension Tables

- **dim_product** (190): Product details, category, brand, specifications
- **dim_customer** (1,000): Customer demographics and segments
- **dim_store** (13): Store location and type classification
- **dim_salesperson** (80): Employee information and performance
- **dim_order** (15,000): Order status, channel, payment details

- **dim_date** (731): Calendar and fiscal hierarchies
- **dim_payment_method** (14): Payment type classifications
- **Geographic**: dim_address, dim_city, dim_state, dim_country

3.2 Data Refresh
- **Frequency:** Daily at 6:00 AM IST
- **Type:** Incremental refresh for fact table
- **Duration:** ~10-15 minutes
- **Validation:** Automated pre-refresh checks (verify_data.py)

4. DASHBOARD PAGES

Page 1: Executive Overview
Purpose: High-level KPIs for C-suite executives
Components:
- KPI Cards: Revenue, Profit, Margin %, Orders, AOV, YoY Growth
- Revenue Trend Line Chart (monthly with forecast)
- Category Performance Matrix
- Channel Distribution Donut Chart
- Top 5 Stores Bar Chart

Page 2: Sales Deep Dive
Purpose: Product and category performance analysis
Components:
- Top 10 Products Bar Chart
- Category Sales Treemap
- Brand Performance Column Chart
- Price vs Profit Scatter Plot
- Product Performance Table with sparklines
- Category Mix Ribbon Chart

Page 3: Store Performance
Purpose: Store-level operational metrics
Components:
- Store Sales Comparison Bar Chart
- Geographic Sales Filled Map
- Store Type Performance Donut Chart
- Store Ranking Table
- Online vs Physical Comparison Cards

Page 4: Customer Analytics
Purpose: Customer segmentation and lifetime value
Components:
- Customer Segmentation Scatter Plot
- Top 10 Customers Table
- Customer Distribution by Segment

- Repeat Customer Rate KPI
- New vs Returning Customers Trend

Page 5: Channel & Payment Analysis
Purpose: Multi-channel and payment insights
Components:
- Channel Performance Cards (Online vs In-Store)
- Payment Method Distribution Bar Chart
- Channel Mix Trend Area Chart
- Average Transaction by Payment Method

Page 6: Operational Dashboard
Purpose: Order fulfillment and efficiency
Components:
- Order Status Funnel Chart
- Fulfillment KPI Cards (Delivery, Cancellation, Return rates)
- Salesperson Leaderboard Table
- Delivery Performance by Store

5. KEY METRICS

Metric	Description
Total Revenue	Sum of all sales transactions
Total Profit	Sum of profit amounts
Profit Margin %	Profit divided by Revenue × 100
Average Order Value	Total Revenue ÷ Number of Orders
YoY Growth %	Year-over-year revenue comparison
Customer Lifetime Value	Total revenue from individual customer
Repeat Customer Rate	Customers with 2+ orders ÷ Total Customers
Fulfillment Rate	Delivered Orders ÷ Total Orders × 100

9. SUCCESS METRICS
9.1 Business Impact (12 Months)
- **Profit Margin improvement:** +1.5% (from 6.0% to 7.5%)
- **Accessories Revenue growth:** +220% through focused marketing
- **Customer Retention:** +10% improvement
- **Inventory Turnover:** +15% efficiency
- **Order Fulfillment:** Increase from 75.7% to 82%

9.2 Expected ROI

Investment: ₹8,00,000 (First Year)

Expected Benefits: ₹1,65,75,000 (Annual)

ROI: 1,972%

Payback Period: <1 month

APPROVAL SIGN-OFF

Role	Name	Signature	Date
Project Sponsor (COO)	_____	_____	_____
Business Owner (VP Sales)	_____	_____	_____
IT Manager	_____	_____	_____
BI Lead	_____	_____	_____

Next Review Date: May 24, 2026

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