**🧾 Functional Requirements Document (FRD)**

**PROJECT NAME:** SUPERSTORE CUSTOMER & SALES INSIGHT  
**PREPARED BY:** JIBIN AHAMMED  
**DATE:** 24/10/2025  
**VERSION:** 1.0

**1. PURPOSE**

The purpose of this FRD is to define the functional requirements for developing the **Superstore Customer & Sales Insight Power BI Dashboard**, which provides interactive visualization of sales, profit, customer segmentation, and shipping performance.  
This document translates the **business objectives** from the BRD into specific **Power BI functionalities and behaviore**

**2. PROJECT OVERVIEW**

This Power BI report uses data from *Sample - Superstore 2.csv* to deliver actionable insights into sales, profit, customer segments, and shipping operations.  
The solution is designed to help management monitor performance, identify top-performing areas, and make data-driven decisions.

**3. FUNCTIONAL REQUIREMENTS**

**🔹 3.1 Dashboard Pages**

| **Page Name** | **Purpose** | **Functional Description** | **Key Visuals / Features** |
| --- | --- | --- | --- |
| **Sales & Profit Overview** | To provide an overview of total sales and profit across categories and regions. | Display total sales and profit KPIs, visualize trends and category-level contribution. | KPI Cards (Sales, Profit), Stacked Bar Chart (Sales by Sub-Category), Column Chart (Sales by Region), Line Chart (Sales vs Profit Trend), Gauge (Profit Margin). |
| **Customer & Segment Insights** | To analyze performance by customer, segment, and category. | Display top customers by sales and profit; visualize sales by segment and profit by category. | Table (Customer, Sales, Profit), Pie Chart (Sales by Segment), Column Chart (Profit and Sales by Category), Slicers (Segment, Category, Region). |
| **Shipping & Delivery Analysis** | To understand how shipping modes and delivery days affect profit and discounts. | Display profit based on delivery time, sales by ship mode and region, and average discount per mode. | Scatter Plot (Profit vs Delivery Days), Stacked Bar Chart (Sales by Ship Mode & Region), Column Chart (Discount by Ship Mode), KPI Cards (Total Discount). |

**🔹 3.2 Data Functionalities**

| **Requirement ID** | **Requirement Description** | **Calculation / DAX Logic** | **Expected Behavior** |
| --- | --- | --- | --- |
| FR-01 | Calculate total sales value | Total Sales = SUM(Orders[Sales]) | Displays overall revenue for selected filters |
| FR-02 | Calculate total profit | Total Profit = SUM(Orders[Profit]) | Shows total profit dynamically with slicers |
| FR-03 | Compute profit margin | Profit Margin = DIVIDE(SUM(Orders[Profit]), SUM(Orders[Sales])) | Gauge visualization displays profit margin |
| FR-04 | Calculate average discount | Average Discount = AVERAGE(Orders[Discount]) | Shows mean discount on Shipping page |
| FR-05 | Calculate delivery days | Delivery Days = DATEDIFF(Orders[Order Date], Orders[Ship Date], DAY) | Used in scatter plot to correlate with profit |
| FR-06 | Display top products | Use Top N filter on Sub-Category by Sales | Displays best performing sub-categories |
| FR-07 | Enable filtering | Use Slicers for Region, Segment, Category, Ship Mode | Interactively filters visuals across pages |
| FR-08 | Display sales trends | Use Line Chart by Order Date | Shows monthly or yearly trends of sales & profit |

**🔹 3.3 Navigation & Interactivity**

* Users can navigate between three main pages using buttons or tabs.
* All visuals are **interactive** and respond to slicer selections.
* Hover tooltips provide detail-level data such as sales, profit, discount.
* Drill-through is enabled to move from region → customer → order-level view.

**4. NON-FUNCTIONAL REQUIREMENTS**

| **Requirement Type** | **Description** |
| --- | --- |
| **Performance** | Dashboard should load in under 5 seconds. |
| **Data Refresh** | Dataset refreshes automatically or manually in Power BI Service. |
| **Usability** | Clear labels, consistent color themes, and meaningful KPIs. |
| **Security** | Access restricted to Sales & Operations team. |
| **Scalability** | Should handle additional data (future months/regions) efficiently. |

**5. DATA MODEL OVERVIEW**

* **Fact Table:** Orders (contains Sales, Profit, Discount, etc.)
* **Dimension Fields:** Category, Sub-Category, Region, Segment, Ship Mode, Customer Name
* Relationships are built automatically in Power BI through these columns.
* All metrics (Sales, Profit, Delivery Days) are derived from the same source CSV.

**6. ASSUMPTIONS**

* Data in the CSV file is accurate and cleaned.
* Each order has valid Order Date and Ship Date.
* Power BI visuals are connected through active relationships.

**7. ACCEPTANCE CRITERIA**

✅ Dashboard pages created as per layout.  
✅ Sales, Profit, Discount, and Delivery metrics validated.  
✅ Slicers and filters work across all visuals.  
✅ Dashboard loads successfully within performance target.  
✅ End-user can export visual data if required.

**8. APPROVAL**

| **Name** | **Role** | **Signature** | **Date** |
| --- | --- | --- | --- |
| Sales Head | Project Sponsor |  |  |
| Jibin Ahammed | BI Developer / Analyst |  |  |
| Operations Lead | End User |  |  |