

# **Analytic Report for Superstore– Project Report**

## **1. Project Title**

Analytic Report for Superstore using Power BI and Tableau

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## **2. Author**

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## **3. Project Summary**

This project presents a comprehensive analysis of retail performance using the Superstore dataset. The goal was to understand key business metrics such as sales, profit, customer segments, regional contribution, and product performance. Two interactive dashboards were developed in Power Biand Tableau respectively, enabling stakeholders to monitor performance, identify trends, and make data-driven decisions.

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## **4. Objective**

- Provide a complete view of Superstore's sales performance
  - Identify trends in sales, profit, and discount patterns
  - Analyze performance across categories, subcategories, segments, and regions
  - Identify high-performing vs. low-performing products
  - Understand monthly and yearly sales patterns
  - Enable interactive decision-making with slicers and filters
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## **5. Data Overview**

- File: sample\_-store.xls
- Size: 9995 rows across 21 columns

- Key columns: Sale, Profit, Region, Product Name
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## 6. Tools and Technologies used

- **Power BI Desktop** – Main tool for visualization and dashboard creation.
  - **Power Query Editor** – For data cleaning and transformation.
  - **Tableau** - Main tool for visualization and dashboard creation.
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## 7. Process

- Data Collection
  - Data Cleaning
  - Data Transformation
  - KPI Creation
  - Visualization (PowerBI and Tableau)
  - Insight Extraction
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## 8. KPIs (Key Performance Indicators)

Dashboard 1: Overall Sales Analysis

- Total Sales, Total Profit, Total Quantity
- Sales by Category: Technology, Furniture, Office Supplies
- Sales by Subcategory
- Sales by State (Map)
- Profit by Subcategory
- Sales Trend Over Time
- Sales by Customer Segment
- Top 5 Selling Products

## Dashboard 2: Monthly & Product Performance Analysis

Includes:

- KPI Cards: Total Sales, Profit %, Quantity
  - Monthly Sales Trend (Line Chart)
  - Product-wise Manufacturing Price vs Sales
  - Units Sold by Product (Donut Chart)
  - Top & Bottom Products Based on Sales/Profit
  - Sales by Country (Map Visualization)
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## 9. Visualizations Used

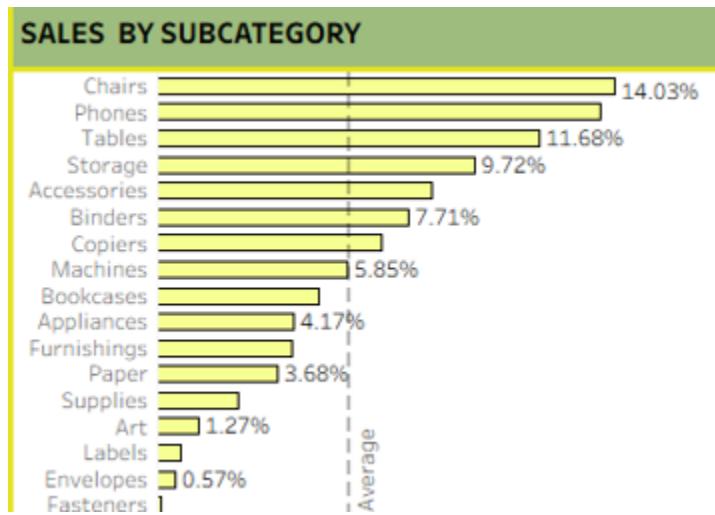
### 1. Sales by Category

This bar chart compares sales performance across major product categories—Technology, Furniture, and Office Supplies. It highlights which category contributes the highest share to total sales, helping identify the strongest revenue drivers.



## 2. Sales by Subcategory(BarChart)

This bar chart breaks down sales across product subcategories such as Chairs, Phones, Tables, Accessories, and more. It identifies top-performing subcategories and those with low demand, supporting inventory and marketing decisions.



## 3. Sales by States (Map Visualization)

The filled map visual represents state-wise sales distribution across the USA. Darker shades indicate higher sales volume. This visual helps identify strong and weak geographic markets.



#### 4. Sales by Segment

The donut chart breaks down sales by customer segment—Consumer, Corporate, and Home Office. It reveals which segment contributes most to overall revenue and helps in customer targeting strategies.



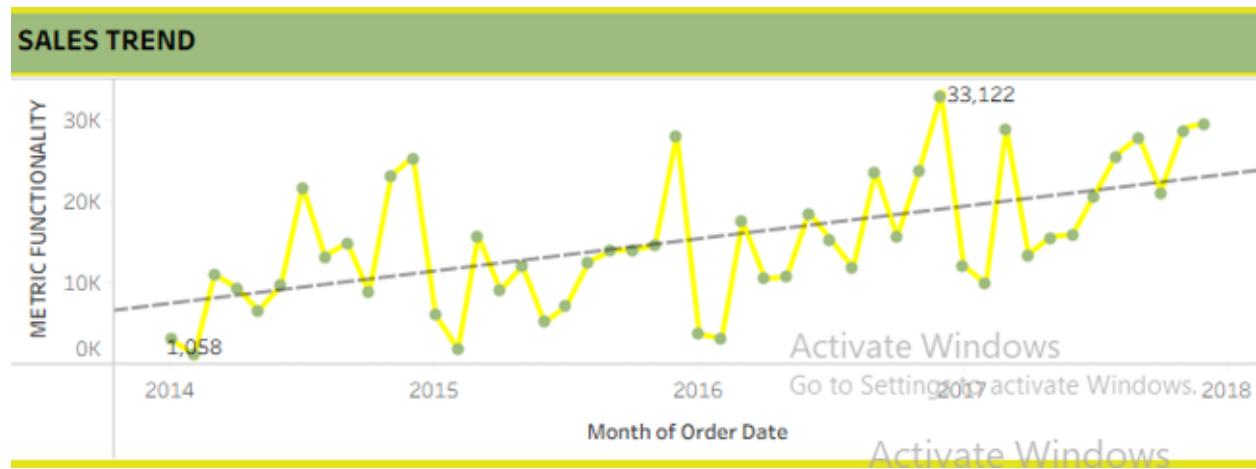
#### 5. Top 5 Products by Sales

This table lists the top-selling products based on total sales value. It highlights the products that drive maximum revenue and helps businesses understand customer preferences at a granular level.

TOP 5 PRODUCT BY SALES	
Canon imageCLASS 2200 Advanced Copier	61,600
Cisco TelePresence System EX90 Videoconferencing Unit	22,638
Fellowes PB500 Electric Punch Plastic Comb Binding Machine with Manual Bind	27,453
GBC DocuBind TL300 Electric Binding System	19,823
HON 5400 Series Task Chairs for Big and Tall	21,871

## 6. Sales Trend (Line Chart)

The line graph shows monthly sales trends over time. It highlights seasonal variations, peaks, and dips in sales performance. The upward trendline indicates overall sales growth across the analyzed period.



## 7. Interaction & Filter Section

This panel contains slicers to filter the entire dashboard based on:

- Metric selection (Sales / Profit / Orders)
- Region
- Order date

It enhances the dashboard's interactivity and allows users to conduct deeper, customized analyses.

## 8. KPI Cards Section

Shows quick insights such as total titles, unique genres, and rating summary.

## **11. Challenges & Solutions**

### **1: Data Quality Issues**

The raw dataset contained missing values, duplicate entries, and inconsistent formatting for fields like dates, categories, and product names.

**Solution:** Performed data cleaning in Power Query (Power BI), including removing duplicates, standardizing date formats, handling missing values

### **2: Inconsistent Profit & Discount Patterns**

Some products and segments showed negative profit even with high sales. Discounts were disproportionately affecting profitability.

**Solution:**

- Created KPI visuals to track discount and profit impact
- Used DAX measures to analyze correlation between discounts and loss-making products
- Highlighted low-profit segments for business optimization

### **3: Large Dataset Performance Issues**

Dashboard slowed down with multiple visuals.

**Solution:** Optimized by removing unnecessary columns and using measures.

### **4: Difficulties in Geographical Mapping**

State-wise data required precise mapping, and some states had very low data volume leading to weak visual representation.

**Solution:** Used filled map visualization for better state comparison

### **5: Extracting Meaningful Insights**

Raw data did not directly show patterns.

**Solution:** Designed KPIs, slicers, and trend visuals to make insights visible.

### **6. Complex Hierarchical Data (Category → Subcategory → Product)**

Representing hierarchical data in a way that is easy to understand was difficult.

#### **Solution:**

- Used bar charts and treemaps to represent category and subcategory performance
- Created “Top 5 Product by Sales” section to simplify analysis
- Structured visuals so users can drill down for deeper insights

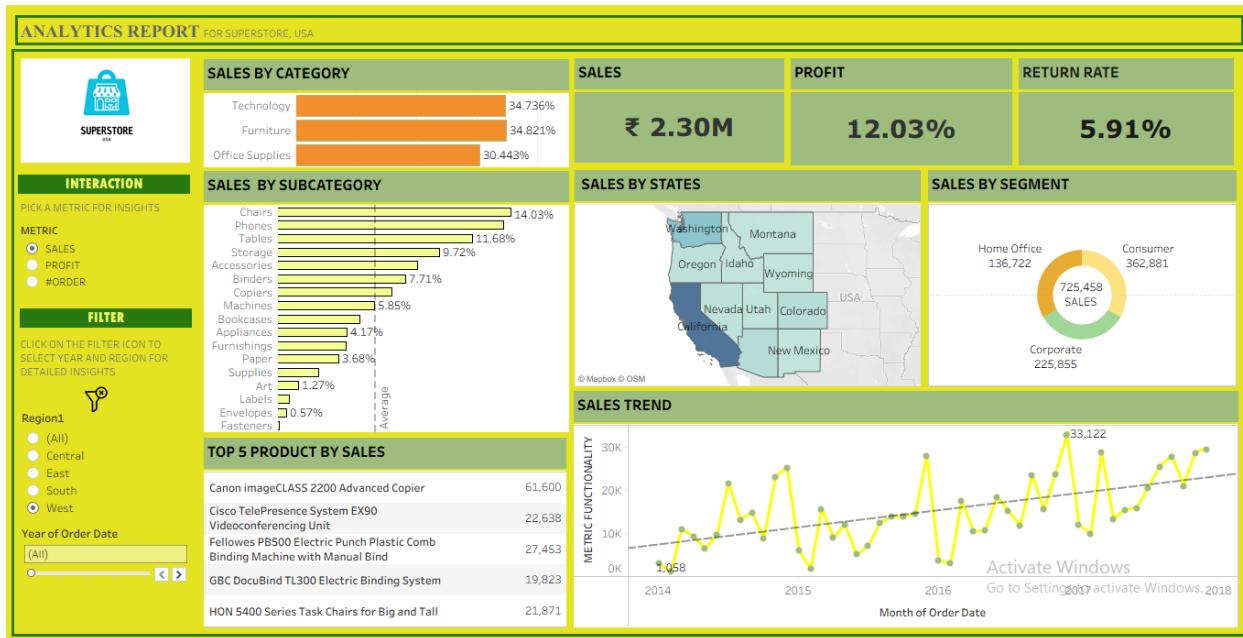
## **12. Future Improvements**

- Add user engagement metrics such as watch duration or popularity index.
  - Compare Amazon Prime with Netflix, Hotstar, and other OTT platforms.
  - Integrate sentiment analysis using user reviews.
  - Build forecasting models to predict content popularity.
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## **13. Conclusion**

This project demonstrates a complete analytics workflow starting from data cleaning to visualization and insight generation. As a fresher, this work showcases proficiency in **Power BI, Excel, SQL, Power Query, dashboard development, and data storytelling**. The Superstore Sales Analysis provides clear visibility into business performance across categories, customer segments, and regions. The insights gained from the dashboards support better decision-making in sales strategy, product planning, and regional growth initiatives. The interactive visuals offer a powerful tool for executives to track KPIs and take timely actions.

## TBALEAU DASHBOARD :



## POWERBI DASHBOARD :



