Superstore Sales Analysis Report

Online Merchant Sales Analysis — 2-Year Snapshot (2019–2020)

AUTHOR: VAIBHAV GOYAL
EMAIL: VG.GOYAL611@GMAIL.COM
LINKEDIN: PROFILE
GITHUB: PORTFOLIO

Table of Contents

Project Overview

Objective: Convert raw transactions into actionable intelligence for revenue growth and operational excellence. This project combines Power BI technical excellence (cleaning in Power Query, data modeling, DAX, forecasting) with business-focused insights.

Business Problem & Objectives

Identify high-performing states and regions to prioritize marketing and logistics.

- Measure YoY growth to assess business expansion.
- Analyze delivery performance to reduce shipping delays.
- Provide a short-term sales forecast for inventory and staffing planning.

Dataset

- **Source:** Superstore Sales Dataset (Excel, 2 years of records).
- **Key Columns Used:**
  - Order Date, Ship Date
  - Sales, Quantity, Profit
  - State, Region
  - Order ID, Customer Info

🛠 Tools & Techniques

Power BI – DAX Formulas, Cleaning Dataset, Charts & Visualisation

- Dashboard design & layout
- DAX Formulas for KPI metrics

Data Cleaning & Preparation

Dataset: Superstore Sales (2 years). Data was loaded into Power BI via Power Query and processed for analysis. Key preprocessing steps included duplicate removal, date normalization, and handling missing ship dates.

Note: Data cleaning was performed to ensure accurate DAX measures and forecasting results.

Analysis Performed

1. **Sales Performance by Category & Sub-Category** – Furniture, Office Supplies, and Technology broken down to identify top/bottom revenue drivers.
2. **Profit Analysis** – Profit contribution tracked across categories to highlight high-margin and low-margin segments.
3. **Regional Sales Trends** – Comparative analysis of East, West, South, and Central regions.
4. **Shipping & Delivery Insights** – AvgDeliveryDays calculated with DAX to measure operational efficiency.
5. **Customer Segment Breakdown** – Consumer, Corporate, and Home Office performance analysis.
6. **KPI Tracking** –
    - Total Sales (1.6 M)
    - Total Profit (175K)
    - Average Delivery Days (4)
    - Average Order Value (AOV = 521)
    - YoY Growth % (2%)

Key Insights

- **Total Sales & Profit** – Technology drives the highest revenue, but Office Supplies yield more consistent profit margins.
- Operational **Efficiency** – AvgDeliveryDays shows efficient logistics with only minor variance across regions.
- Average **Order Value (AOV = 521)** – Indicates a stable purchase behaviour, useful for forecasting demand.
- **YoY Growth (2%)** – Business experienced modest growth, showing potential for scaling strategies.
- **Regional Differences** – Western region leads in both sales and profit, while Central lags behind.
- **Customer Segments** – Consumer segment contributes the largest share of revenue, followed by Corporate.
- **Shipping Mode Impact** – Standard Class dominates shipments but contributes less to profit compared to Express deliveries.
- **Balanced Dashboard** – KPIs, charts, and slicers consolidate insights into one interactive view for quick decision-making.

Recommendations

- Prioritize logistics improvements to reduce AvgDeliveryDays.
- Implement targeted AOV-increasing tactics (bundles, cross-sell).
- Region-specific campaigns for under-indexed states.
- Use forecast to plan inventory and staff during expected peaks

Executive Summary

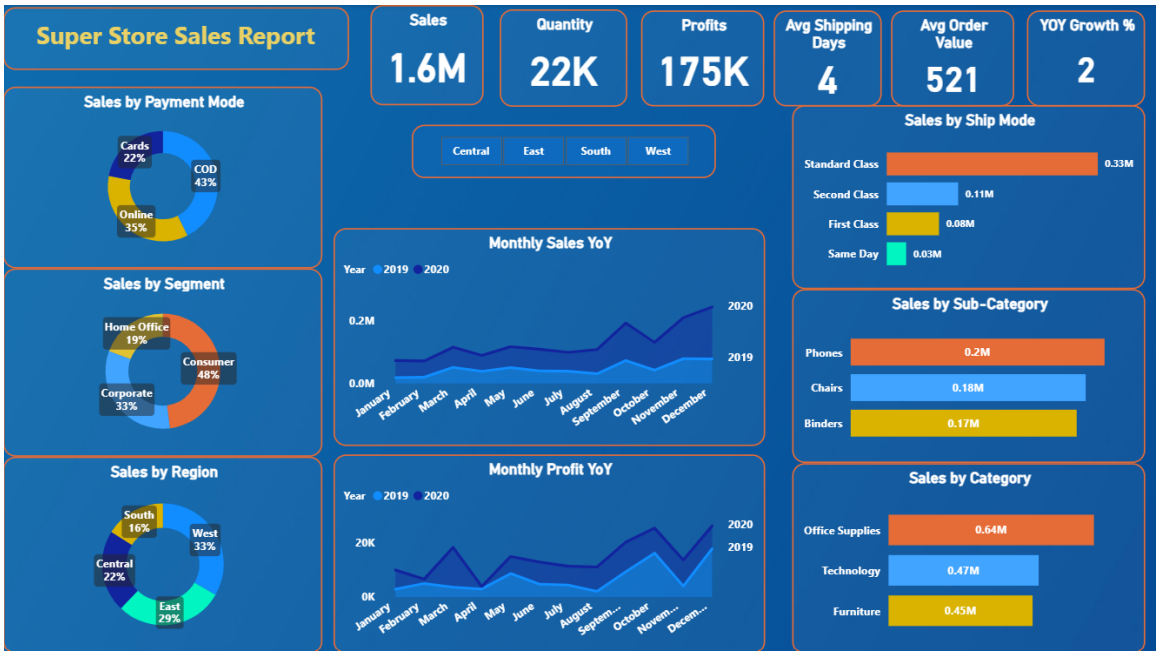
This Power BI project analyzes a two-year Superstore sales dataset to provide business-ready insights for an online merchant. Key outputs include interactive dashboards, DAX-based KPIs, and a 15-day sales forecast to support inventory and operational planning.

Key metrics showcased: Total Sales, Total Orders, and Average Order Value (AOV = $521), YoY Growth (2%), Average Delivery Days (logistics efficiency), and a 15-day forecast.

Dashboard & Visuals

Screenshot of the Dashboard:

- **Sales Report:**



- **Sales Forecast:**