

Madhav Store – Online Sales Analysis using Power BI

1. Introduction

In the rapidly growing e-commerce sector, businesses must rely on data-driven insights to remain competitive. Madhav Store operates as an online retail business across multiple states in India. With increasing order volumes, it became necessary to convert raw sales data into actionable insights using an interactive dashboard. This project uses Power BI to analyze sales performance and customer behavior across India.

2. Problem Statement

Madhav Store lacked a centralized analytical system to monitor online sales performance. The business faced challenges in understanding regional sales distribution, category-level performance, monthly trends, and customer payment preferences. Raw data existed but was not transformed into insights for decision-making.

3. Project Objectives

- Track and monitor overall online sales performance
- Analyze state-wise and category-wise sales
- Identify seasonal and monthly trends
- Understand customer payment behavior
- Support data-driven business decisions

4. Tools & Technologies

- Power BI Desktop – Dashboard creation and visualization
- Power Query – Data cleaning and transformation
- DAX – Measures and calculated fields
- Excel / CSV – Data source files

5. Dataset Description

The dataset consists of online sales transaction data including Order ID, Order Date, State, Customer Name, Product Category, Sub-Category, Quantity, Sales Amount, and Payment Mode. The data represents sales across different Indian states over multiple months.

6. Data Cleaning & Transformation

Data cleaning was performed using Power Query. Missing values were removed, data types were corrected, and categorical values were standardized. Additional columns such as Month and Year were derived from the Order Date to support time-based analysis.

7. Data Modeling

Relationships were created between sales and product tables using Order ID. A fact-dimension model was implemented to ensure accurate filtering and slicing across visuals.

8. Dashboard Overview

The dashboard includes KPI cards, bar charts, line charts, pie and donut charts, map visuals, and interactive slicers. These visuals allow users to drill down into sales performance by state, category, payment mode, and time period.

9. Key Insights & Analysis

- Maharashtra and Karnataka contribute the highest sales volume
- Clothing category generates maximum revenue
- Sales peak during festive and high-discount months
- Cash on Delivery and UPI are the most preferred payment modes
- Low-performing regions show growth opportunities

10. Business Recommendations

Marketing efforts should be intensified in high-performing states to maximize revenue. Targeted promotions can be launched in underperforming regions. Inventory planning should align with seasonal demand, and digital payment adoption can be encouraged through offers.

11. Conclusion

This Power BI project successfully converts raw sales data into meaningful insights. The dashboard provides Madhav Store with a clear view of business performance and supports strategic decision-making through interactive analysis.

12. Future Scope

Future enhancements can include real-time data integration, profit analysis, customer segmentation, and predictive sales forecasting.