

E-Commerce Sales Dashboard Analysis

Project Overview

This project presents an interactive **E-commerce Sales Dashboard** designed to analyze sales performance across **categories, regions, stores, and years**.

The dashboard helps stakeholders understand historical performance, identify trends, predict future outcomes, and make data-driven business decisions.

Objectives

- Analyze sales revenue and quantity across product categories
 - Compare performance across regions and years
 - Identify high- and low-performing areas
 - Support business decisions using data insights
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Dashboard Components

The dashboard includes the following visualizations:

- Category-wise Total Revenue & Quantity
 - Product-wise Total Revenue
 - Region-wise Category Revenue
 - Average Sales by Store ID
 - Region-wise Revenue Trend (2023–2025)
 - Interactive filters for Category, Region, Product, Store, and Year
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Four Types of Data Analysis

1 Descriptive Analysis – *What happened?*

Descriptive analysis summarizes historical data to understand overall performance.

Insights from the dashboard:

- Sales revenue is broken down by **category, region, store, and year**
 - The **Sports category** shows the highest total revenue
 - **North and South regions** generate higher revenue compared to the West
 - Store-wise average sales remain relatively consistent
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2 Diagnostic Analysis – *Why did it happen?*

Diagnostic analysis explains the reasons behind performance differences.

Insights from the dashboard:

- The **West region** consistently shows lower revenue compared to other regions
 - Certain categories perform better across multiple regions
 - Revenue growth is significantly higher in **2024 compared to 2023**
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3 Predictive Analysis – *What is likely to happen?*

Predictive analysis uses historical trends to estimate future outcomes.

Insights from the dashboard:

- Year-wise revenue trends (2023–2025) show a **positive growth pattern**
 - High-performing regions and categories are expected to continue strong performance
 - Sales are likely to increase if current trends continue
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4 Prescriptive Analysis – *What should we do?*

Prescriptive analysis suggests actions to improve business outcomes.

Recommendations based on insights:

- Increase inventory for **high-performing categories** (e.g., Sports, Electronics)
- Improve marketing strategies in **low-performing regions (West)**
- Replicate successful strategies from **North and South regions**

- Optimize store-level performance using average sales data
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Tools & Technologies Used

- Microsoft Excel
 - Pivot Tables & Pivot Charts
 - Interactive Slicers
 - Dashboard Design Techniques
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Formulas & Function used

- =IF(ISBLANK(F2),AVERAGE(F2:F101),F2)
- Find & Replace
- XLOOKUP
- Descriptive Statistics
- Conditional Formatting
- Trim & clean function

Conclusion

The E-commerce Sales Dashboard provides clear insights into sales performance across categories, regions, stores, and years. It highlights top-performing categories and regions, identifies growth trends, and reveals areas needing improvement. Overall, the dashboard supports data-driven decisions to optimize sales strategies and improve business performance.