

Retail Business Performance & Profitability Analysis

Introduction

This project focuses on evaluating retail business performance by analyzing transactional sales data. The objective is to identify underperforming product categories, understand seasonal behavior, and optimize inventory turnover.

Abstract

By using SQL, Python, and Tableau, this analysis explores profit margins, sales trends, and inventory correlation. Through visual and statistical methods, the project highlights key areas of improvement for business growth.

Tools Used

- SQL
- Python (Pandas, Seaborn)
- Tableau

Retail Business Performance & Profitability Analysis

Steps Involved in Building the Project

1. Data Cleaning:
 - Removed null and missing values using SQL.
2. SQL Analysis:
 - Calculated profit margin by category and sub-category.
 - Identified low-profit, high-inventory products.
3. Python EDA:
 - Performed correlation analysis between sales, profit, and inventory days.
 - Visualized with Seaborn heatmaps.
4. Tableau Dashboard:
 - Built interactive filters for region, product type, and season.
5. Insights:
 - Recommended actions for slow-moving items and optimized seasonal stocking.

Conclusion

The project provided valuable insights into product profitability, inventory issues, and seasonal behavior. By combining data analysis and visualization, it offers actionable strategies to enhance retail business performance.