

Supermart Grocery Sales - Retail Analytics (Tableau)

Project Overview

The project is an attempt to analyze and visualize supermarket grocery sales information using Tableau. The dataset contains customer orders made through a grocery delivery app, having different attributes such as Order ID, Customer Name, Category, Sub-Category, City, Order Date, Region, Sales, Discount, Profit, State, Month, and Year.

Problem Statement

The Supermart Grocery Sales data set includes customer order information such as sales, profit, discount, and region. The business does not have good insights on sales trends, drivers of profitability, and regional performance. The goal of this project is to visualize and analyze the data through Tableau in order to understand major sales patterns, maximize discount strategy, and offer data-based suggestions for business performance improvement.

Objectives

- Perform cleaning and preparation of the data to visualize trends.
- Develop interactive dashboards to examine sales performance.
- Identify business improvement trends, correlations, and insights.

Tools Used:

1. **Tableau** – For data visualization and dashboard creation.
2. **CSV Files** – For storing and importing sales data.

Data Source:

OrderID : Unique identifier for each other.

Customer Name : Name of customer.

Category : Main Category of product.

Sub-category : sub category within main category.

City : City name where the order was placed.

Order Date: Date when the order was placed.

Region : Regional classification.

Sales: Total sales amount

Discount : Discount applied to the order.

Profit : Profit earned from the sales.

State : state where the order was places.

Month : Month extracted from date.

Year : Year extracted from date.

Step 1: Data Preparation & Cleaning

- Import Data into Tableau
 - Connect to the dataset (CSV/Excel file) in Tableau.
 - Check data types for each field.
- Missing Values & Duplicates
 - Remove or replace missing values as appropriate.
 - Remove duplicate records.
- Create Additional Columns (Calculated Fields)
 - Extract Order Month, Order Year from the Order Date field.

Step 2: Exploratory Data Analysis (EDA) in Tableau

- Sales Performance Overview

Make a Bar Chart to show Total Sales by Category.
- Sales Trends Over Time

Make a Line Chart to monitor Sales Trends over various years.
- Create a Tree map to view Profit and Sales by sub-category.

Utilize Colour Encoding to represent sales and profit areas.
- Construct a Bar Chart of Top 5 Cities by Sales.

Step 3: Creating a Tableau Dashboard

Design an Interactive Dashboard

Integrate several visualizations into one dashboard.

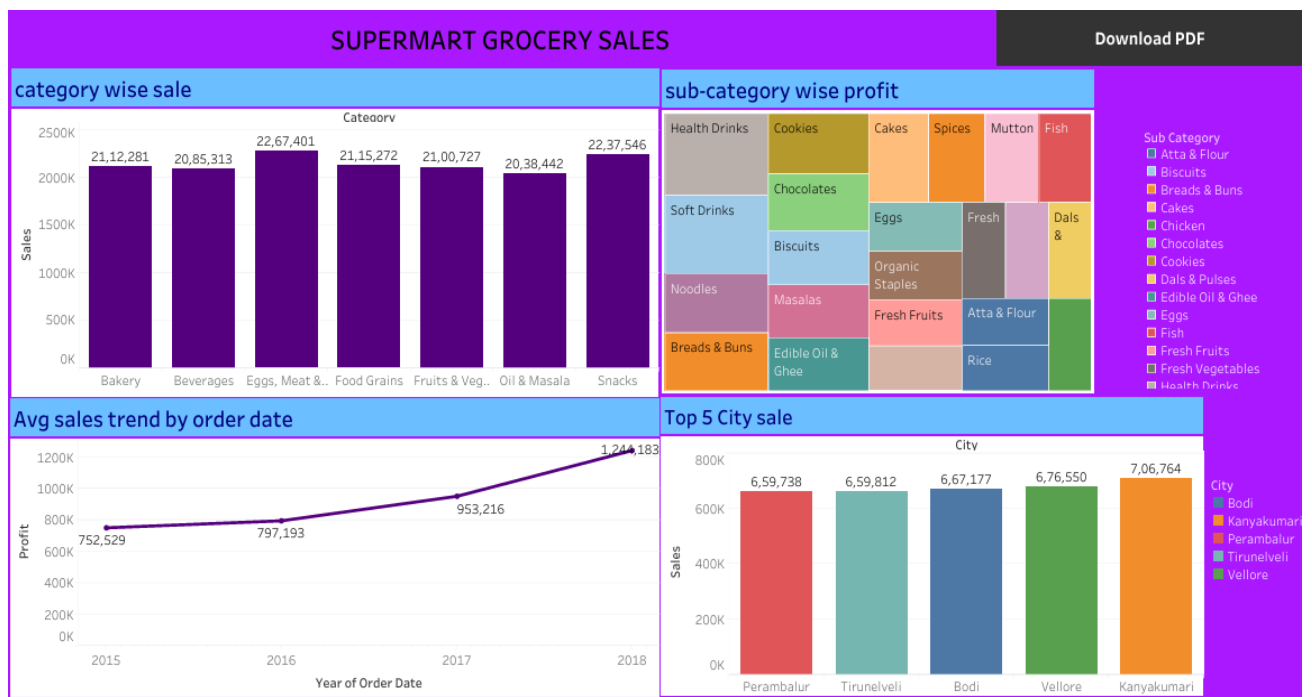
Utilize Filters for interactive exploration.

Step 4: Creating a Tableau Story

Storytelling with Data

Construct a Story in Tableau to present insights.

Result



Conclusion

This Tableau-driven analysis offers in-depth insights into sales patterns, customer activity, and profitability. The interactive dashboards allow stakeholders to make informed business decisions effectively. Additional enhancements can be achieved by incorporating real-time sales data for real-time analytics.