# **Supermart Grocery Sales**

The Supermart Grocery Sales gives a detailed overview of past sales performance and can be effectively used to predict future sales or profit trends. Here's a breakdown of each section and how it helps in forecasting

#### 1-Category by Sales

- Top performing categories:
  - o Eggs (22.67M) and Snacks (22.37M) show highest category-wise sales.
  - Other consistent performers include Baked Goods, Beverages, and Fruits (21M).
- Use in prediction: Identify which product categories drive revenue. Predict future demand and stock accordingly.

### 2-Sales by Year

- 2018 had the highest sales at 33.28% of total.
- There's a year-on-year increase from 2015 to 2018, suggesting steady growth.
- Use in prediction: Time series modelling (e.g., ARIMA or linear regression) can use this upward trend to forecast future sales.

#### 3-Sales by Region

- West region shows the highest sales (4.5M).
- East and Central follow. South lags behind.
- Discount patterns are also included (though no values shown in discount bars).
- Use in prediction: Focus promotional strategies in low-performing regions and optimize inventory distribution.

## 4-Top 5 City Sales

- Cities like Kanyakumari, Vellore, and Bodi lead in sales (~650K–700K).
- Use in prediction: City-level modeling can help in demand forecasting, warehouse planning, and city-specific offers.

## **5-Category Trends for Targeting**

- Products like Eggs, Snacks, and Food show high, consistent sales.
- Use in prediction: Forecast seasonal or monthly product demand. Could use machine learning (e.g., Random Forest) to model product-level predictions.

#### **Conclusion:**

This provides all key metrics to build a predictive model:

- Historical trends (year-wise)
- Regional strengths and weaknesses
- Category performance
- City-level penetration

## With this data, you can:

- Predict future revenue streams.
- Optimize inventory by category and region.
- Maximize profit by focusing on high-margin categories and locations.