

# Project Overview

This report presents an in-depth analysis of Diwali sales. It explores customer demographics, buying behavior, product performance, and high-revenue segments. The insights help in strategic festive planning, targeted marketing, and inventory optimization.

## Dataset Description

The dataset includes customer details such as gender, age group, marital status, state, occupation, product categories, order count, and purchase amount. This allows segmentation and detailed insights on market behavior.

## Key Insights

- Women drive maximum purchases and revenue.
- Age group 26–35 is most active during festive shopping.
- UP, Maharashtra, and Karnataka dominate both order volume and revenue.
- IT and Healthcare professionals contribute significantly to total sales.
- Food, Clothing, and Electronics categories lead in festive purchases.

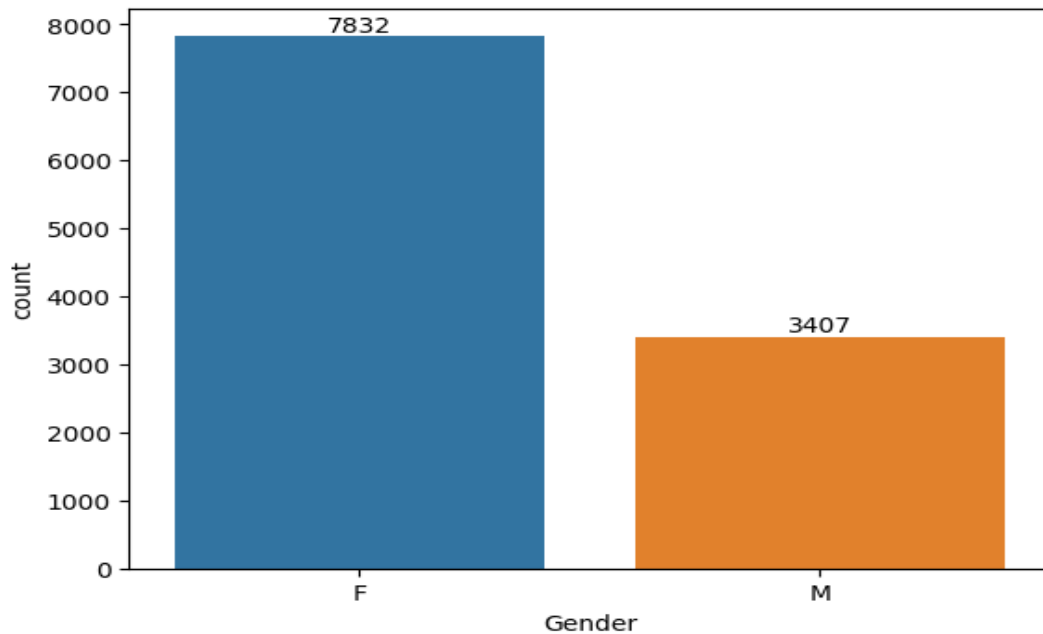
## Business Recommendations

- Introduce women-focused festive offers.
- Promote Diwali bundles aimed at working professionals.
- Strengthen logistics and stock in high-performing states.
- Use corporate gifting strategies for IT & Healthcare customers.
- Focus on best-selling categories to maximize ROI.

## Gender-wise Purchase Count

**What this visual shows:** Females make almost twice the number of purchases compared to males.

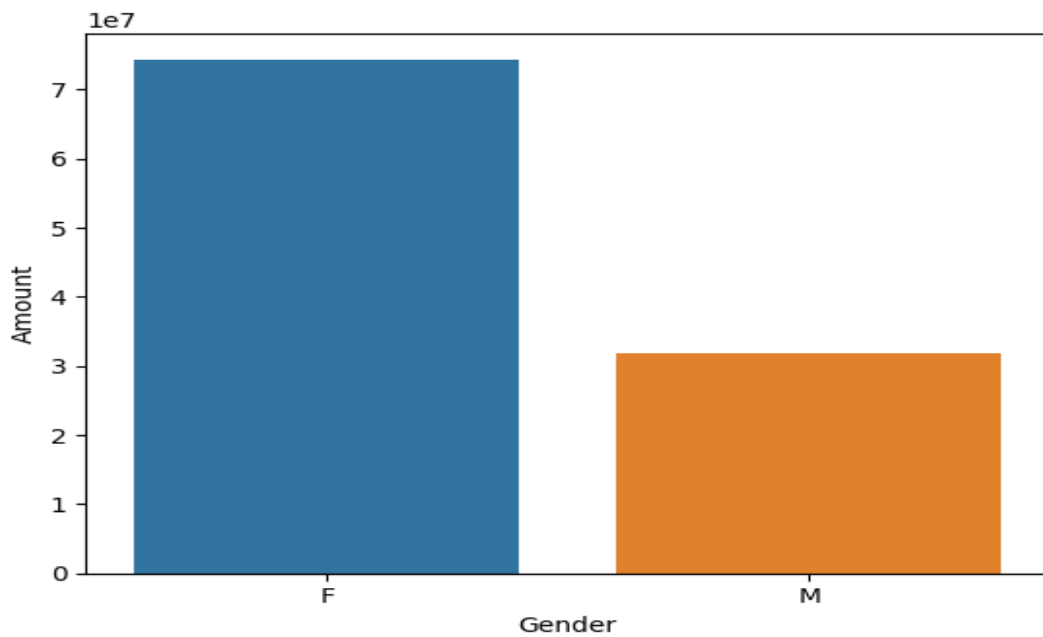
**Business Understanding:** Target women-centric products during Diwali promotions.



## Gender-wise Revenue Contribution

**What this visual shows:** Females also contribute a significantly higher total revenue.

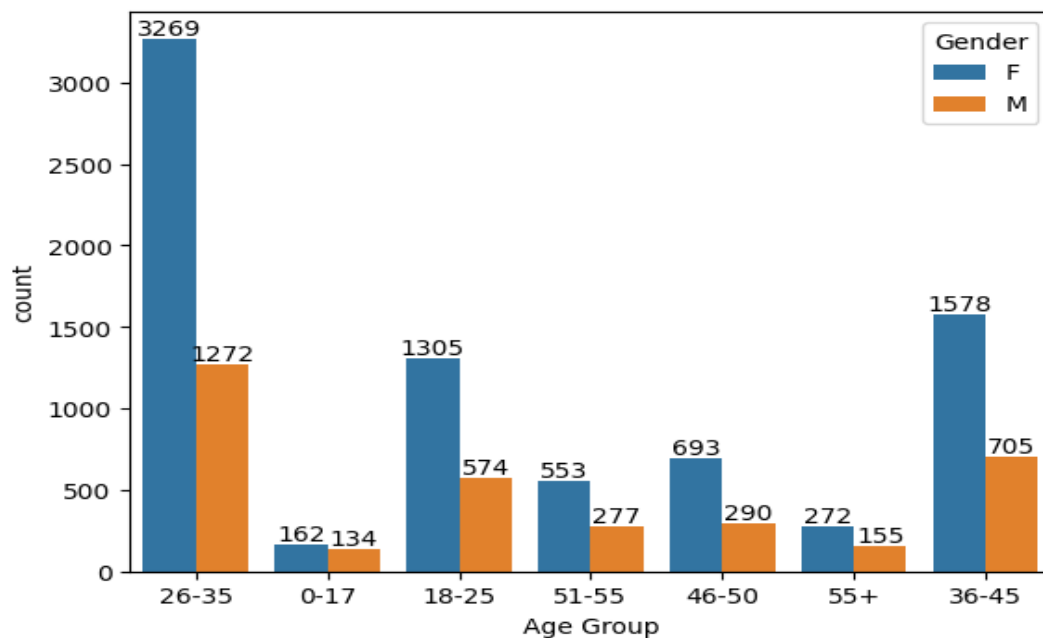
**Business Understanding:** Design high-value bundles for female customers.



## Age Group Purchase Count

**What this visual shows:** Age group 26–35 makes the highest number of purchases.

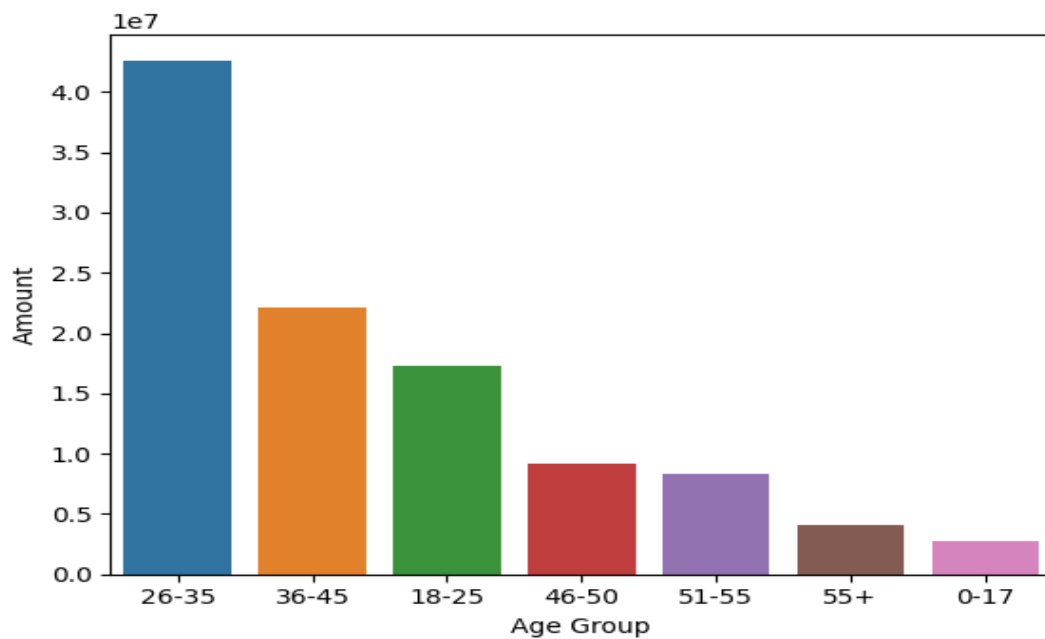
**Business Understanding:** Focus marketing efforts on working professionals aged 26–45.



## Age Group Revenue Contribution

**What this visual shows:** The 26–35 and 36–45 age groups generate the highest revenue.

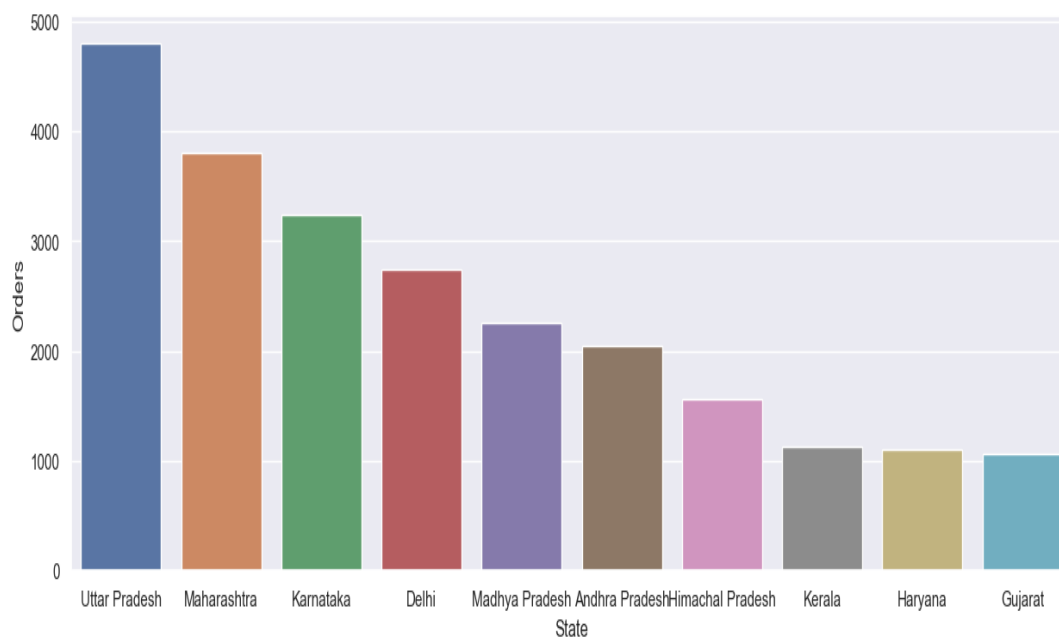
**Business Understanding:** Promote premium items to high-earning age groups.



## State-wise Order Count

**What this visual shows:** UP, Maharashtra, and Karnataka place the most orders.

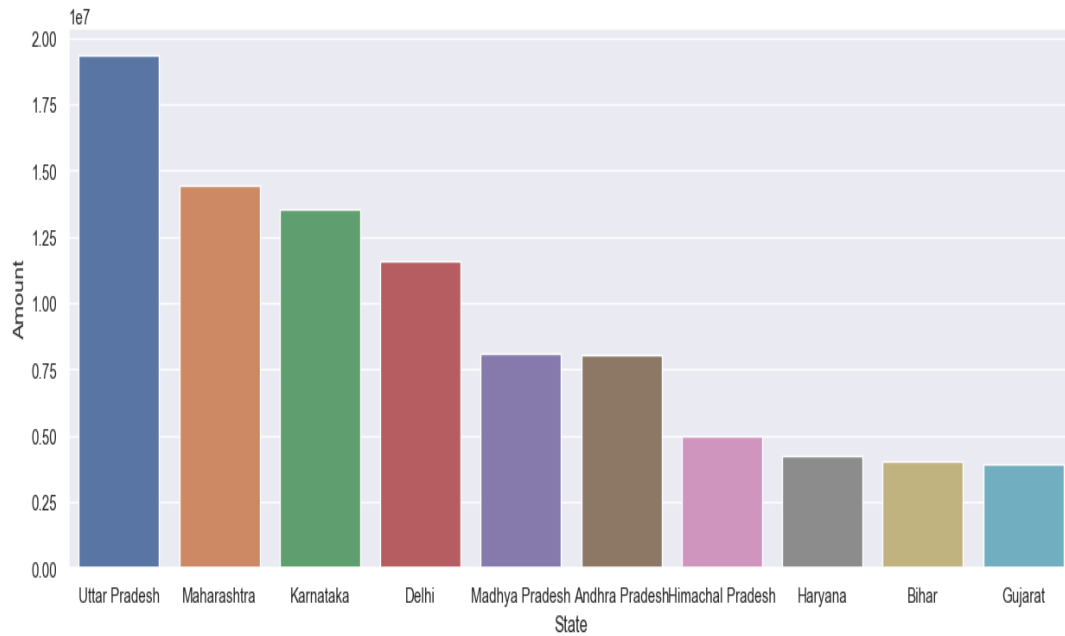
**Business Understanding:** Increase inventory in high-performing states.



## State-wise Revenue Contribution

**What this visual shows:** The highest revenue also comes from UP, Maharashtra, and Karnataka.

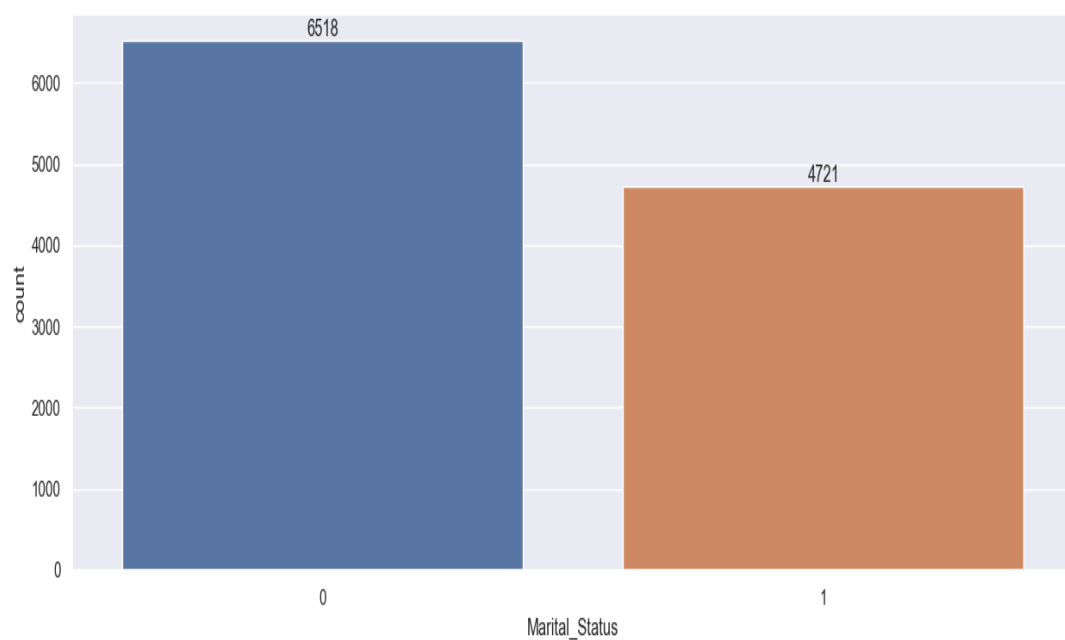
**Business Understanding:** State-specific festive campaigns should be prioritized.



## Marital Status vs Orders

**What this visual shows:** Married customers tend to buy more items.

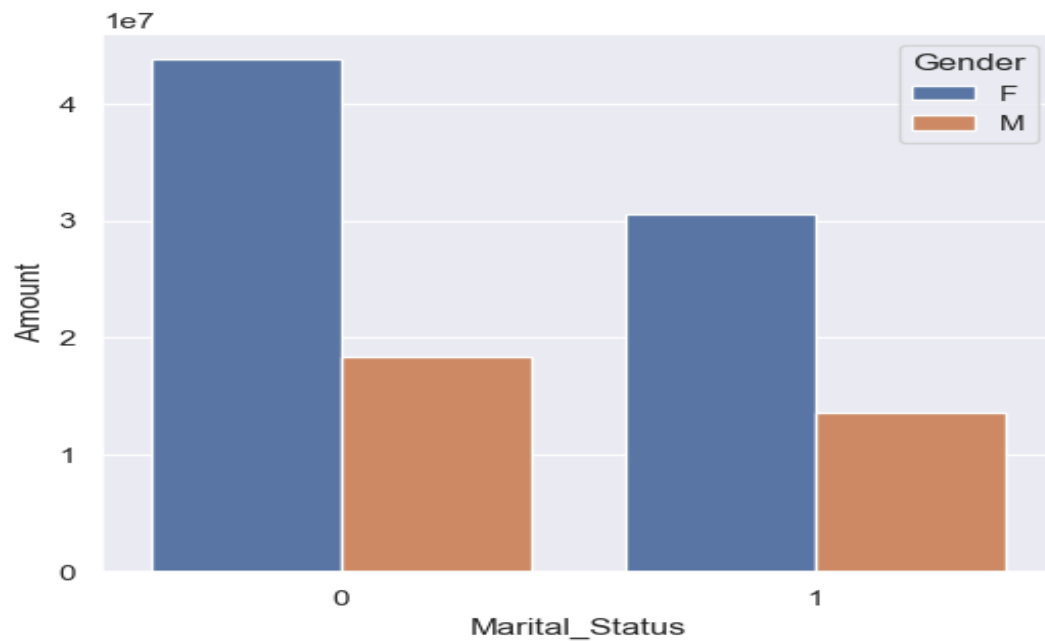
**Business Understanding:** Launch family-oriented Diwali bundles.



## Marital Status vs Revenue

**What this visual shows:** Married customers contribute more revenue overall.

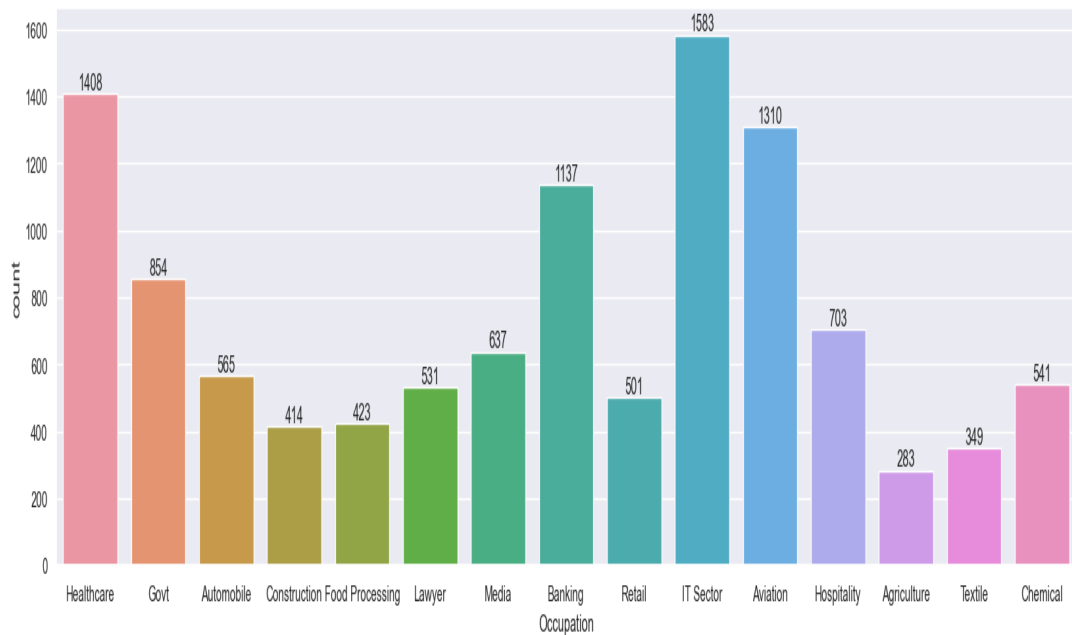
**Business Understanding:** Focus on household and family products for married customers.



## Occupation-wise Order Count

**What this visual shows:** IT, Healthcare, and Aviation professionals make the most purchases.

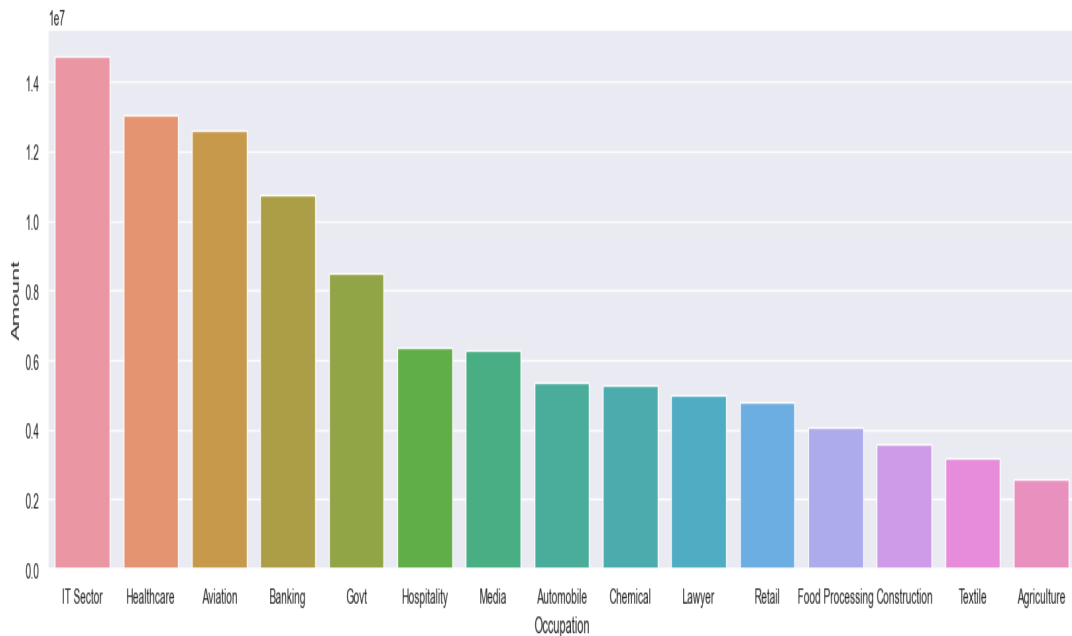
**Business Understanding:** Corporate Diwali coupons can drive higher sales.



## Occupation-wise Revenue Contribution

**What this visual shows:** IT sector professionals generate the highest revenue.

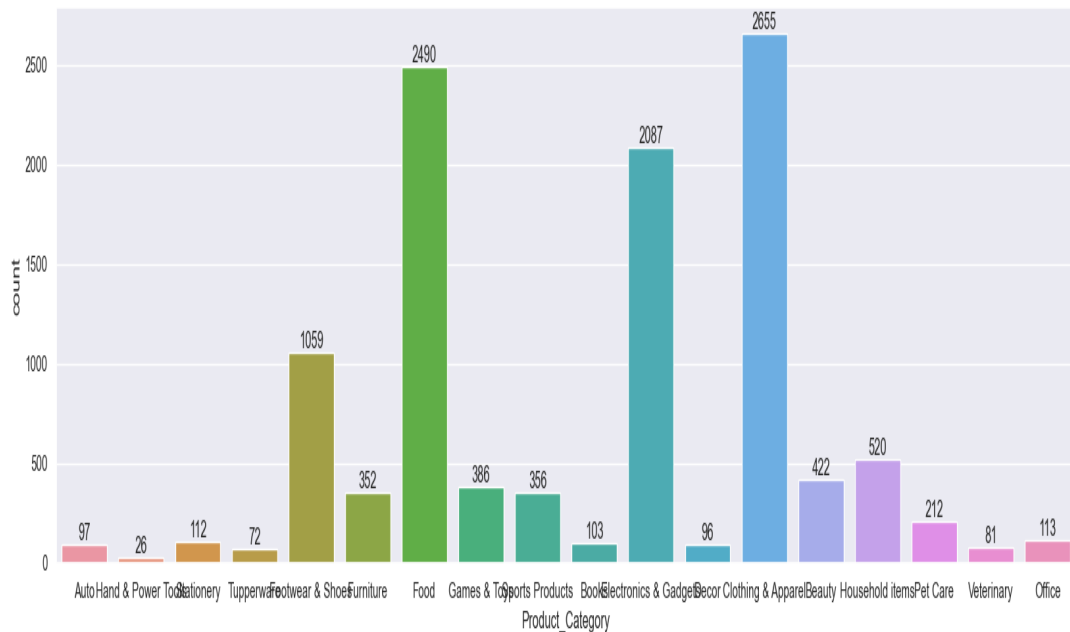
**Business Understanding:** Premium products should be targeted to IT professionals.



## Product Category-wise Orders

**What this visual shows:** Food, Clothing, and Electronics are the most frequently purchased items.

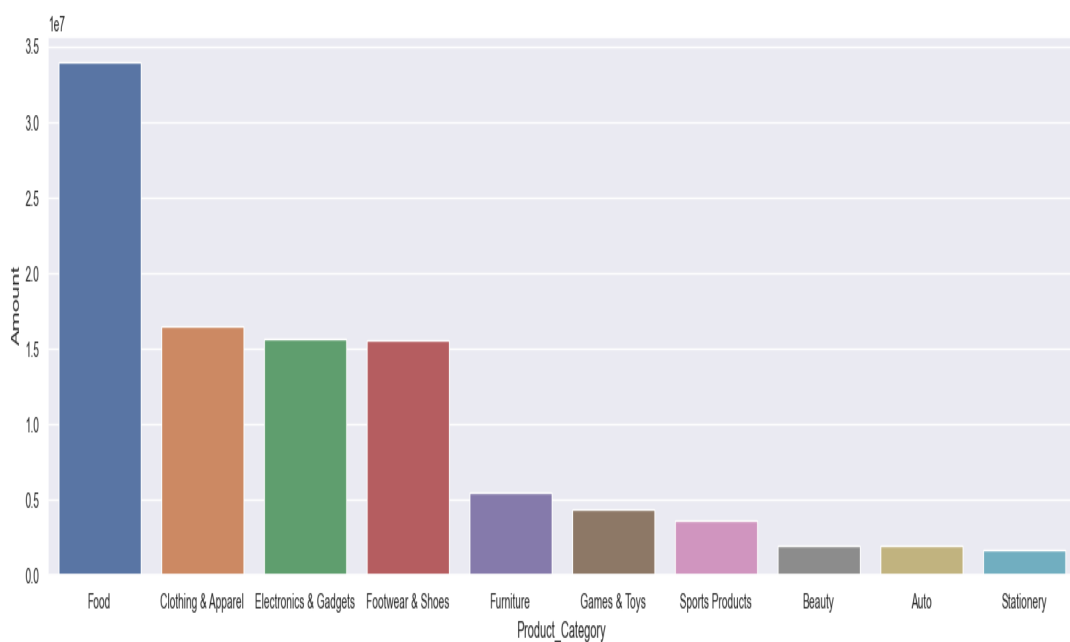
**Business Understanding:** Stock more items in top-performing categories.



## Product Category-wise Revenue

**What this visual shows:** Food and Clothing contribute the most to total category revenue.

**Business Understanding:** High-value electronics can be promoted for maximum ROI.

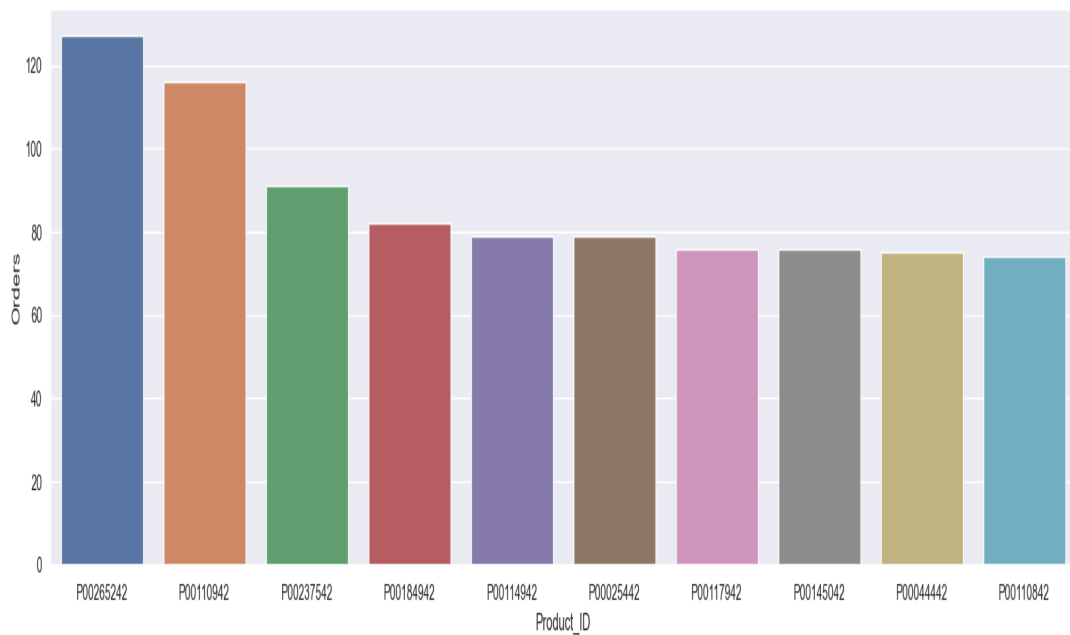




## Top Selling Product IDs

**What this visual shows:** Top product IDs represent most frequently purchased items.

**Business Understanding:** Increase ad spend around bestselling products.



## Additional Visual

**What this visual shows:** This visual provides additional insights from the dataset.

**Business Understanding:** Use this insight to further enhance decision-making.

