

# DIWALI SALES ANALYSIS REPORT

USING PYTHON

# BUSINESS PROBLEM

Improving customer experience and increasing revenue by analyzing sales data from Diwali to identify high-potential customers, sales trends, and product demands. The ultimate goal is to align inventory planning and marketing strategies to customer preferences.

# ASSUMPTIONS

- ▶ The data used is accurate and reflective of real purchasing behaviors.
- ▶ Diwali is a consistent sales peak, and similar trends can be expected in future years.
- ▶ Customers exhibit comparable buying behaviors across similar festivals.
- ▶ Recommendations based on the analysis will be implemented in upcoming sales periods.

# RESEARCH QUESTIONS

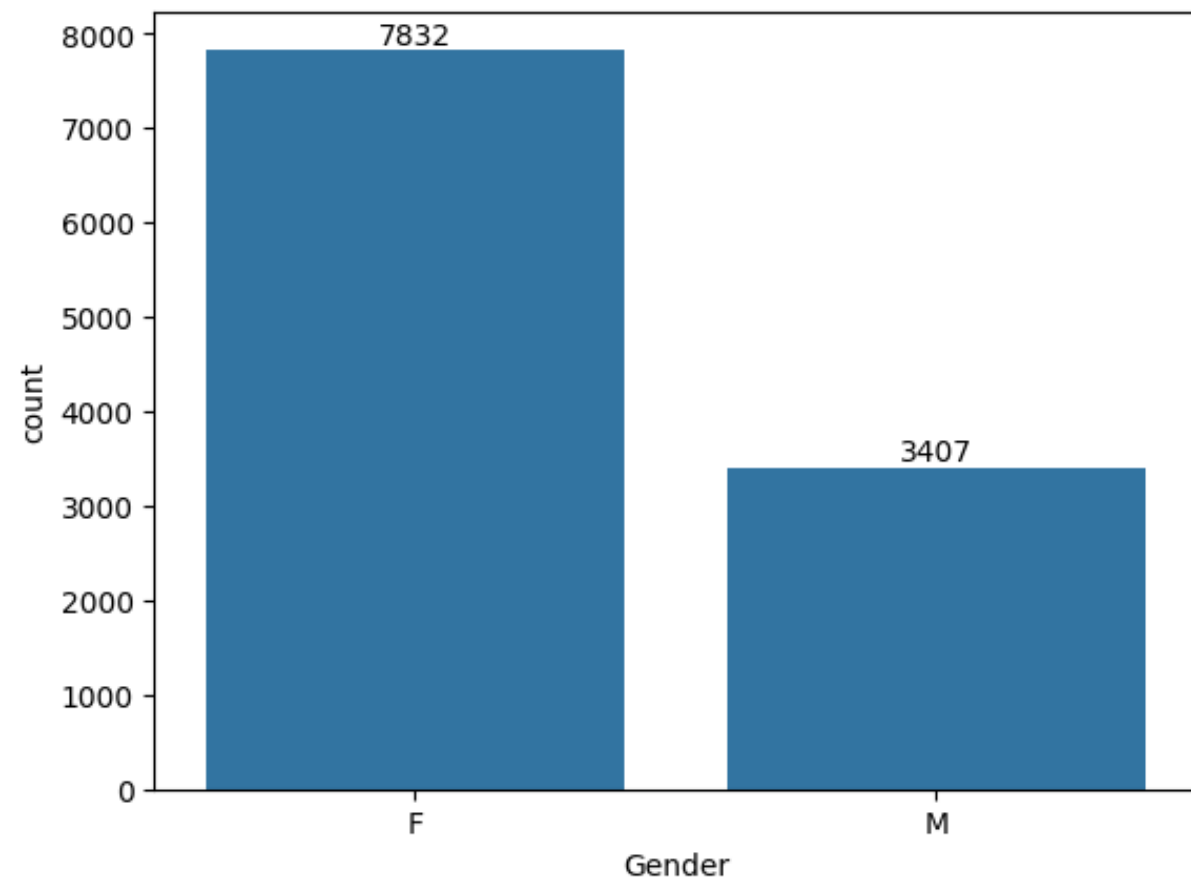
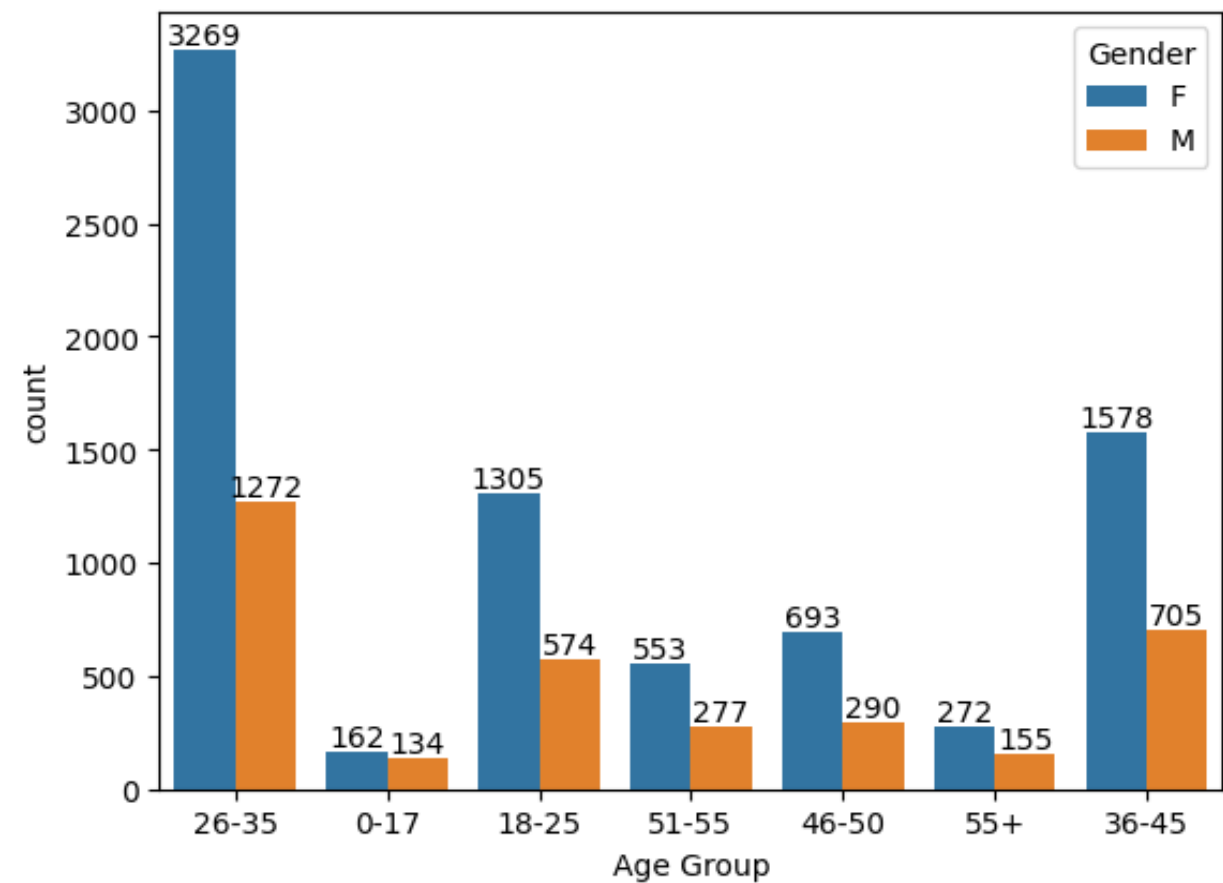
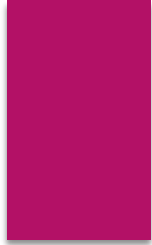
- ▶ Which customer segments (age, gender, marital status, occupation) drive the highest sales?
- ▶ Which states and zones contribute the most to overall revenue?
- ▶ What are the most popular product categories and products during Diwali sales?

# ANALYSIS and FINDINGS

User_ID	Cust_name	Product_ID	Gender	Age Group	Age	Marital_Status	State	Zone	Occupation	Product_Category	Orders	Amount	Status	unnamed'
1002903	Sanskriti	P00125942	F	26-35	28	0	Maharashtra	Western	Healthcare	Auto	1	23952.0	NaN	NaN
1000732	Kartik	P00110942	F	26-35	35	1	Andhra Pradesh	Southern	Govt	Auto	3	23934.0	NaN	NaN
1001990	Bindu	P00118542	F	26-35	35	1	Uttar Pradesh	Central	Automobile	Auto	3	23924.0	NaN	NaN
1001425	Sudevi	P00237842	M	0-17	16	0	Karnataka	Southern	Construction	Auto	2	23912.0	NaN	NaN
1000588	Joni	P00057942	M	26-35	28	1	Gujarat	Western	Food Processing	Auto	2	23877.0	NaN	NaN

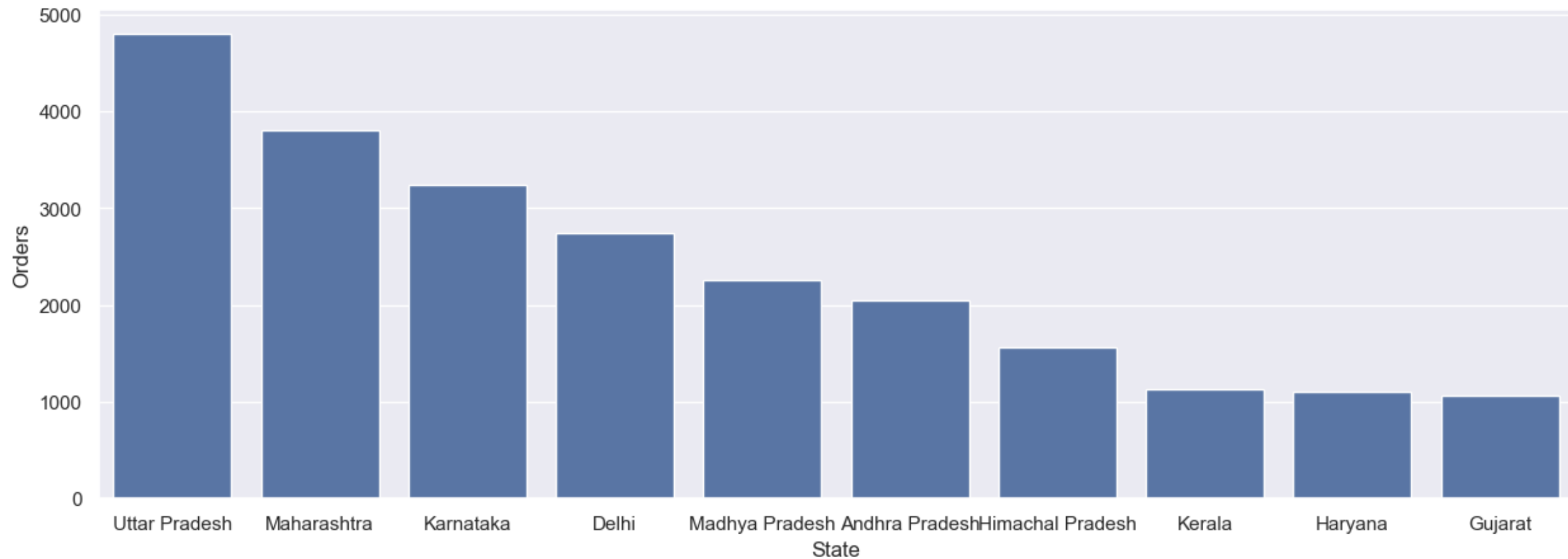
# 1. Customer Demographics:

- **Gender:** Most buyers are female, with higher purchasing power compared to men.
- **Age Group:** The 26-35 age group, particularly women, dominates the buyer segment.



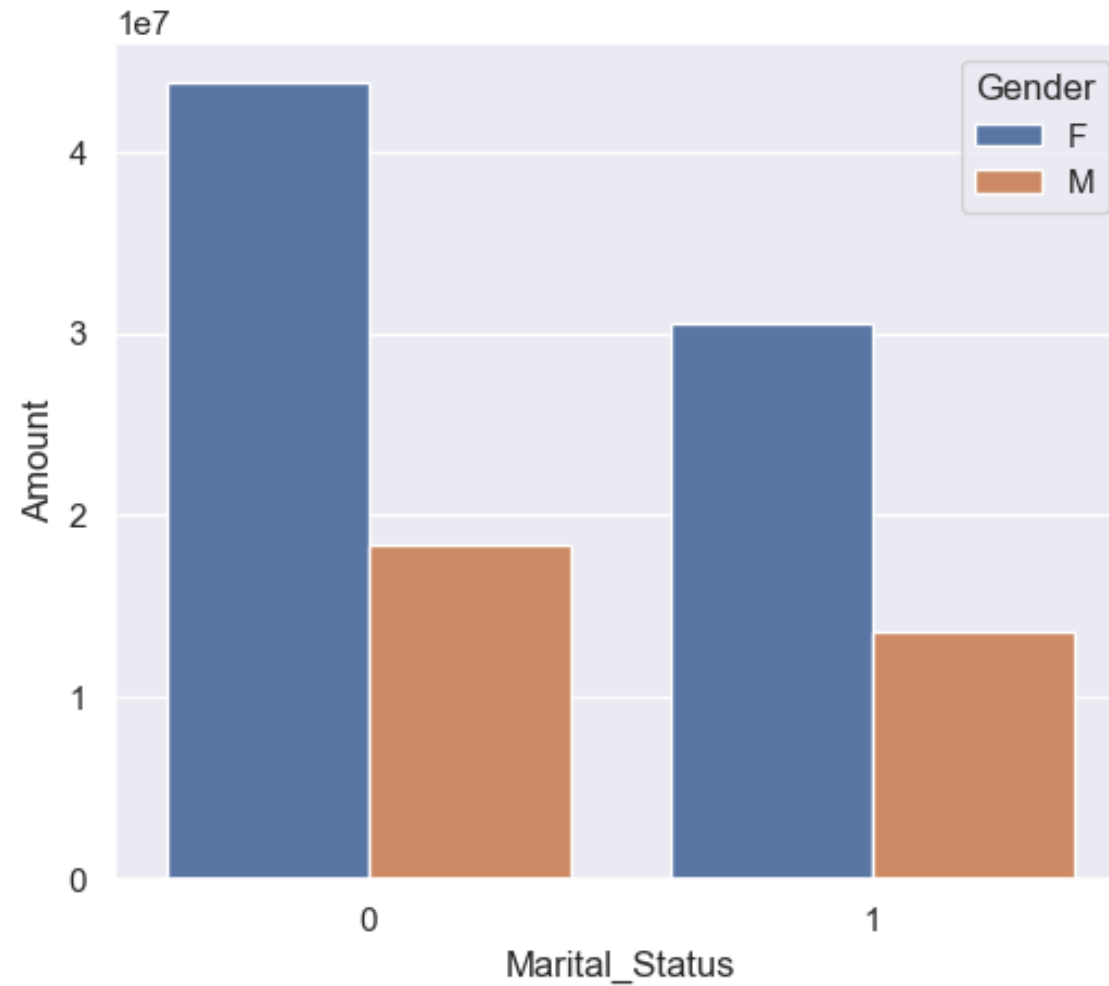
## 2. Geographical Insights:

- The highest orders and total sales come from Uttar Pradesh, Maharashtra, and Karnataka.



### 3. Marital Status:

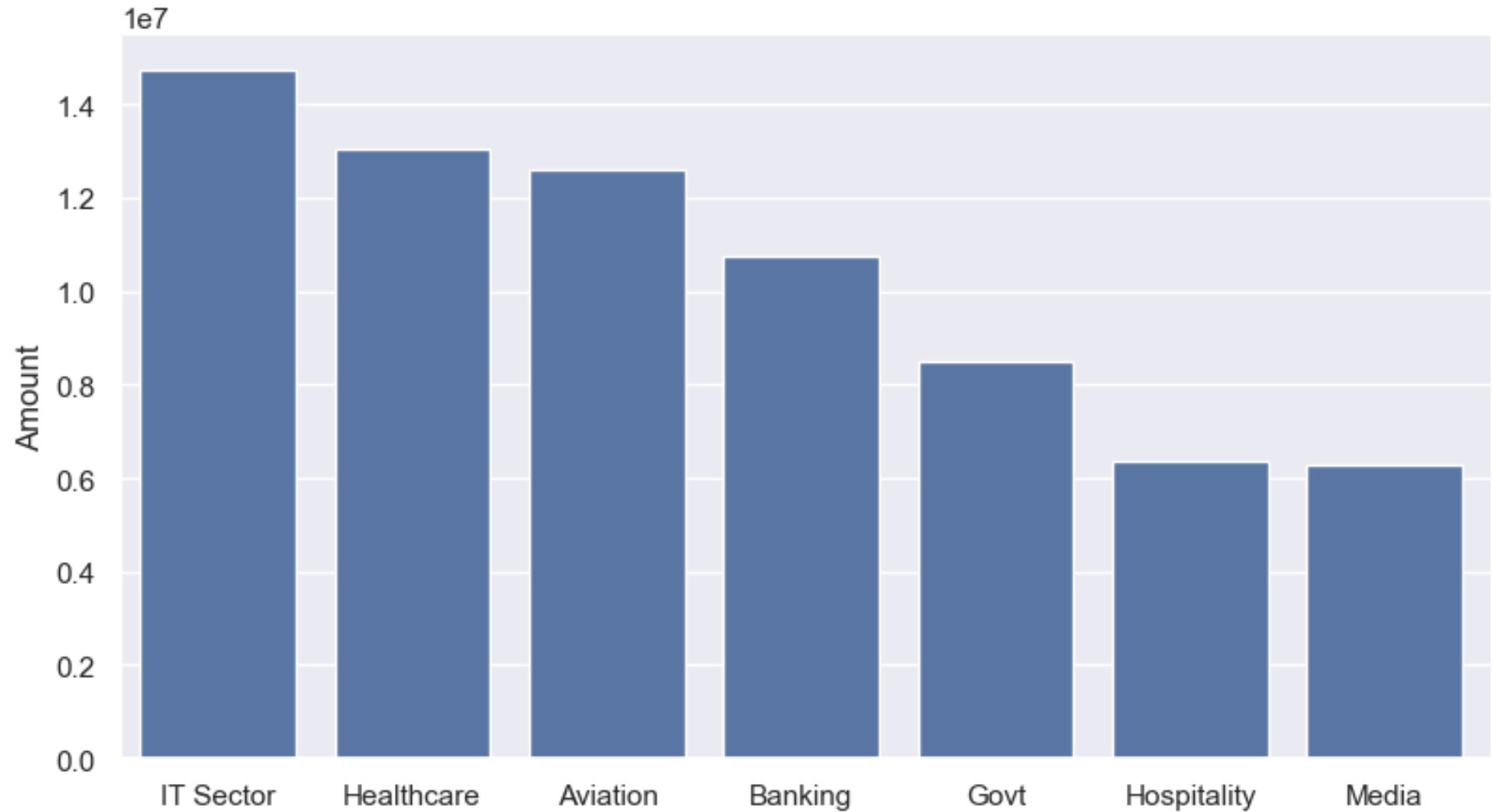
- Married women form the majority of buyers, showcasing a significant purchasing influence during Diwali.





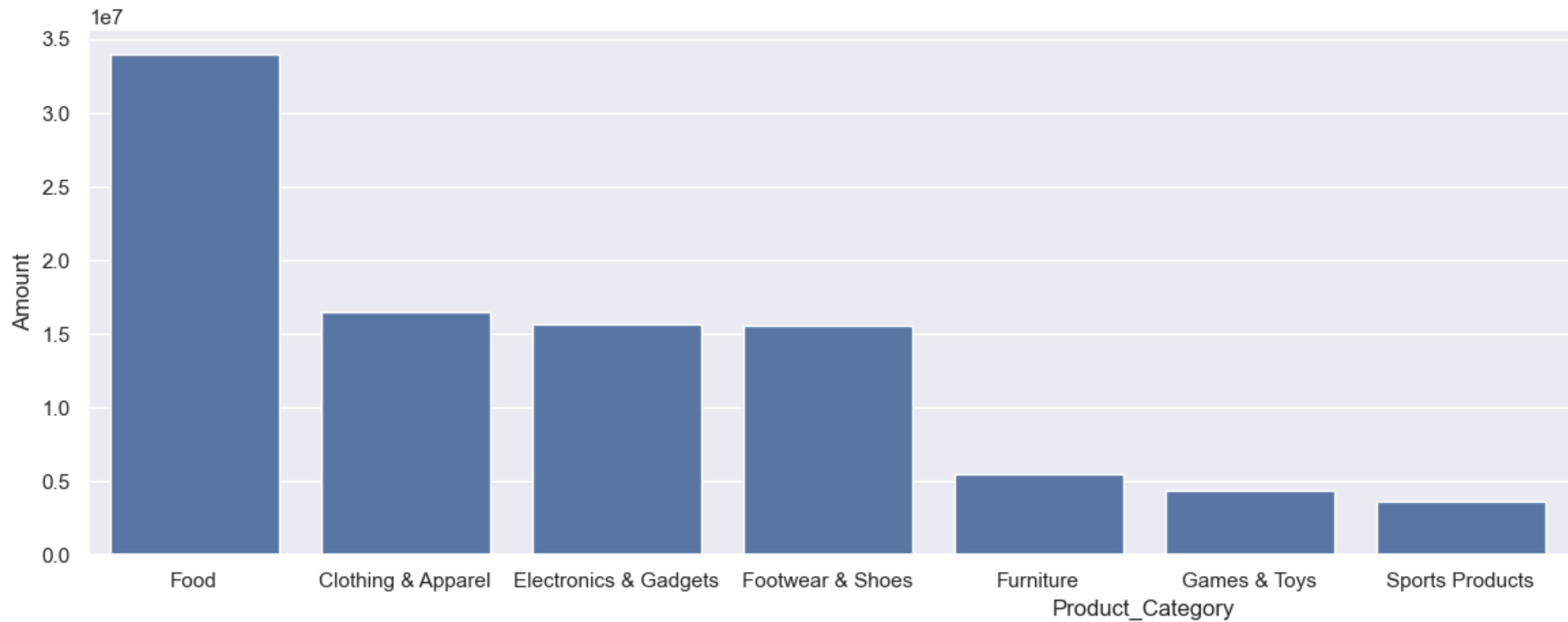
#### 4. Occupations:

- Customers working in IT, Healthcare, and Aviation are the most frequent buyers.



## 5. Product Categories:

- The top-selling categories are Food, Clothing, and Electronics.



# SUGGESTIONS

## **Targeted Marketing:**

- ▶ Create targeted campaigns aimed at married women aged 26-35 years, especially in Uttar Pradesh, Maharashtra, and Karnataka.
- ▶ Design promotional offers for IT, Healthcare, and Aviation professionals.

## **Product Focus:**

- ▶ Prioritize stocking and advertising Food, Clothing, and Electronics during the Diwali season.

## **Regional Promotions:**

- ▶ Launch region-specific campaigns for the top-performing states to capitalize on their sales potential.

## **Gender-Specific Strategies:**

- ▶ Develop marketing strategies and product bundles targeting female consumers, leveraging their higher purchasing power.

## **Inventory Planning:**

- ▶ Align inventory levels to cater to high-demand products and categories to avoid stockouts.



**THANK YOU**

**-- MAYURI.D.**