

Insights And Trends:

Analyzing Diwali Sales Data



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INTRODUCTION

The Diwali Sales Analysis Project delves into the sales data collected during the Diwali festival. Through meticulous data cleaning, exploratory data analysis (EDA), and advanced visualization techniques, we strive to uncover patterns and trends. Our goal is to leverage these insights to make well-informed decisions and optimize sales strategies.

Project Goals

The main objectives of this analysis are as follows:

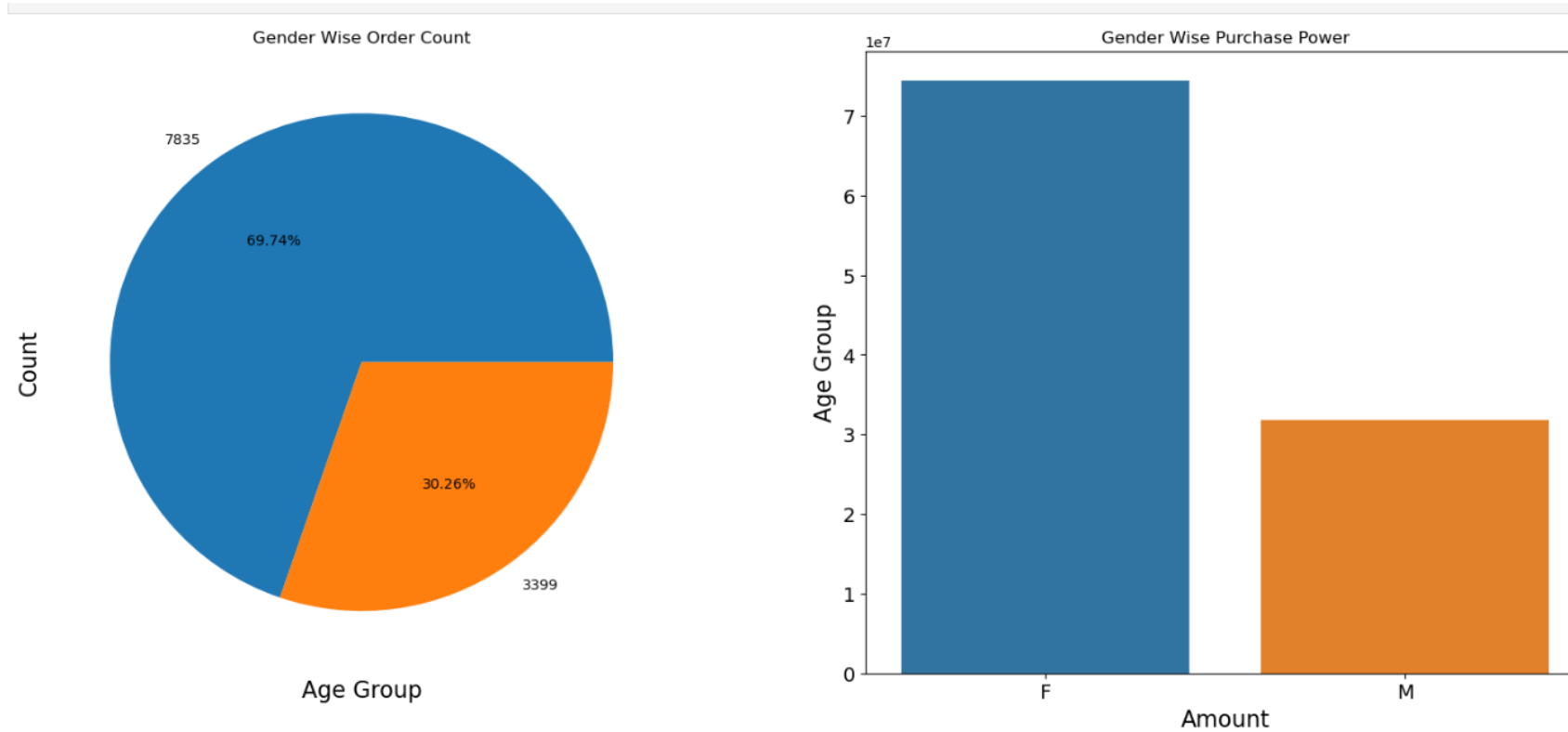
1. Identify Potential Customers: Analyze customer demographics, including states, occupations, gender, and age groups, to identify potential customers. This information will help in targeting specific customer segments and tailoring marketing strategies to improve customer experience.
2. Identify Most Selling Product Categories and Products: Determine the product categories and specific products that have the highest sales during the Diwali festival. This insight will assist in planning inventory, ensuring product availability, and meeting customer demands.

Methodology

1. Data Loading: Load the Diwali sales data set into the code using pandas library. Perform initial data exploration to understand the structure and content of the dataset.
2. Data Cleaning and Manipulation: Handle missing values, remove duplicates if any, and perform necessary data transformations. This step ensures the data is in a suitable format for analysis.
3. Exploratory Data Analysis (EDA): Use pandas, matplotlib, and seaborn libraries to explore the dataset. Analyze different variables, their distributions, and relationships. Generate various visualizations such as bar plots and pie charts to uncover patterns and trends.
4. Customer Analysis: Analyze customer demographics such as states, occupations, gender, and age groups to identify potential customers. Use bar plots or pie charts to visualize the distribution of customers across different categories.. Product Sales Analysis: Determine the most selling product categories and specific products during the Diwali festival. Utilize bar plots or pie charts to visualize the sales quantities and identify the top-selling items.

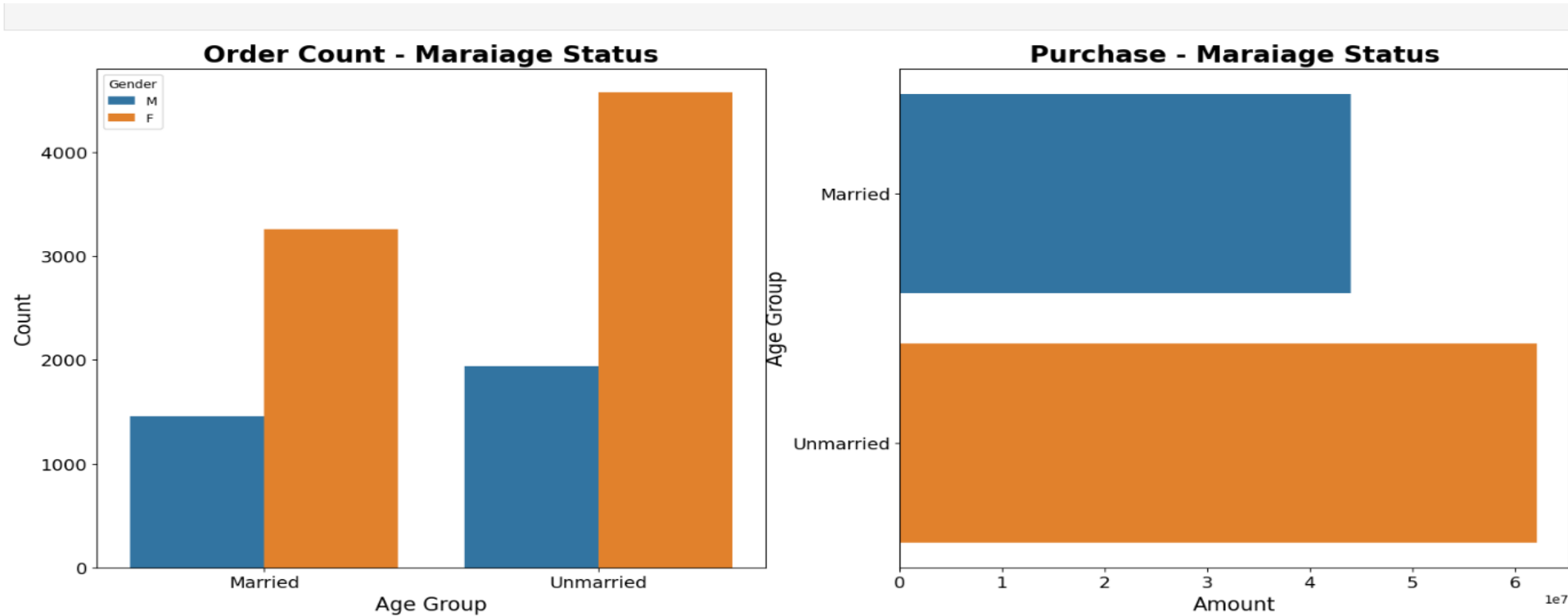
Data Virtualization

Gender Wise Analysis On Sales



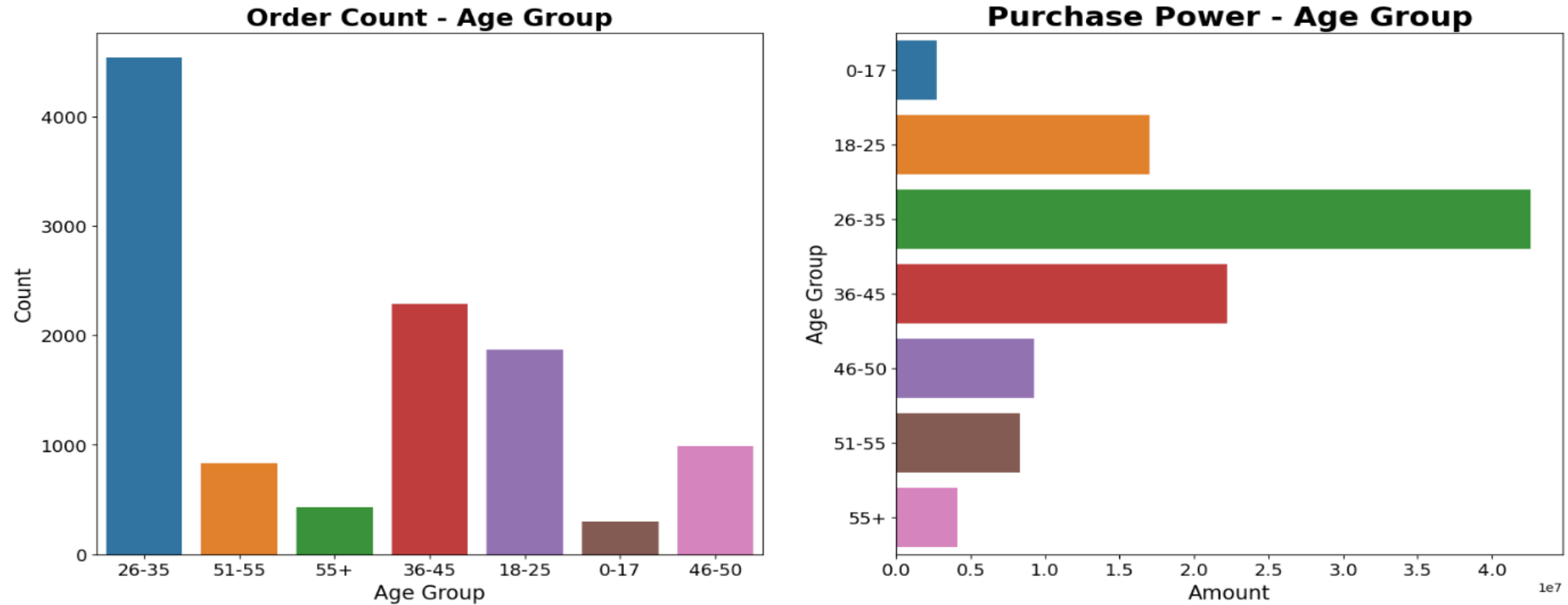
Females generally places more order and their purchase power is also higher

Marriage Wise Analysis on Orders



Unmarried females places more order than married females after then Unmarried males.

Age Group Wise Analysis

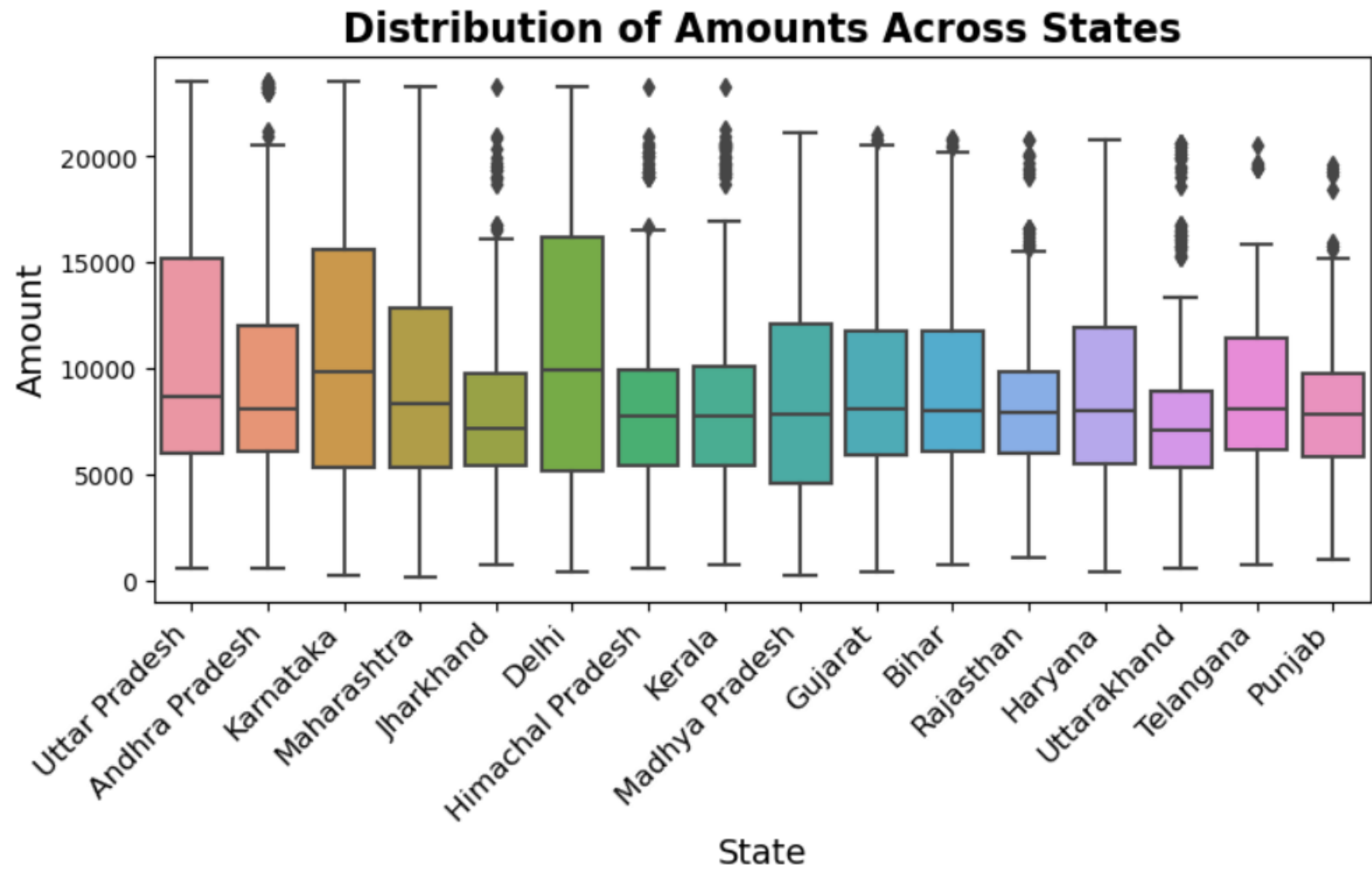


In this above graphs, 26-35 Age Group people places more orders

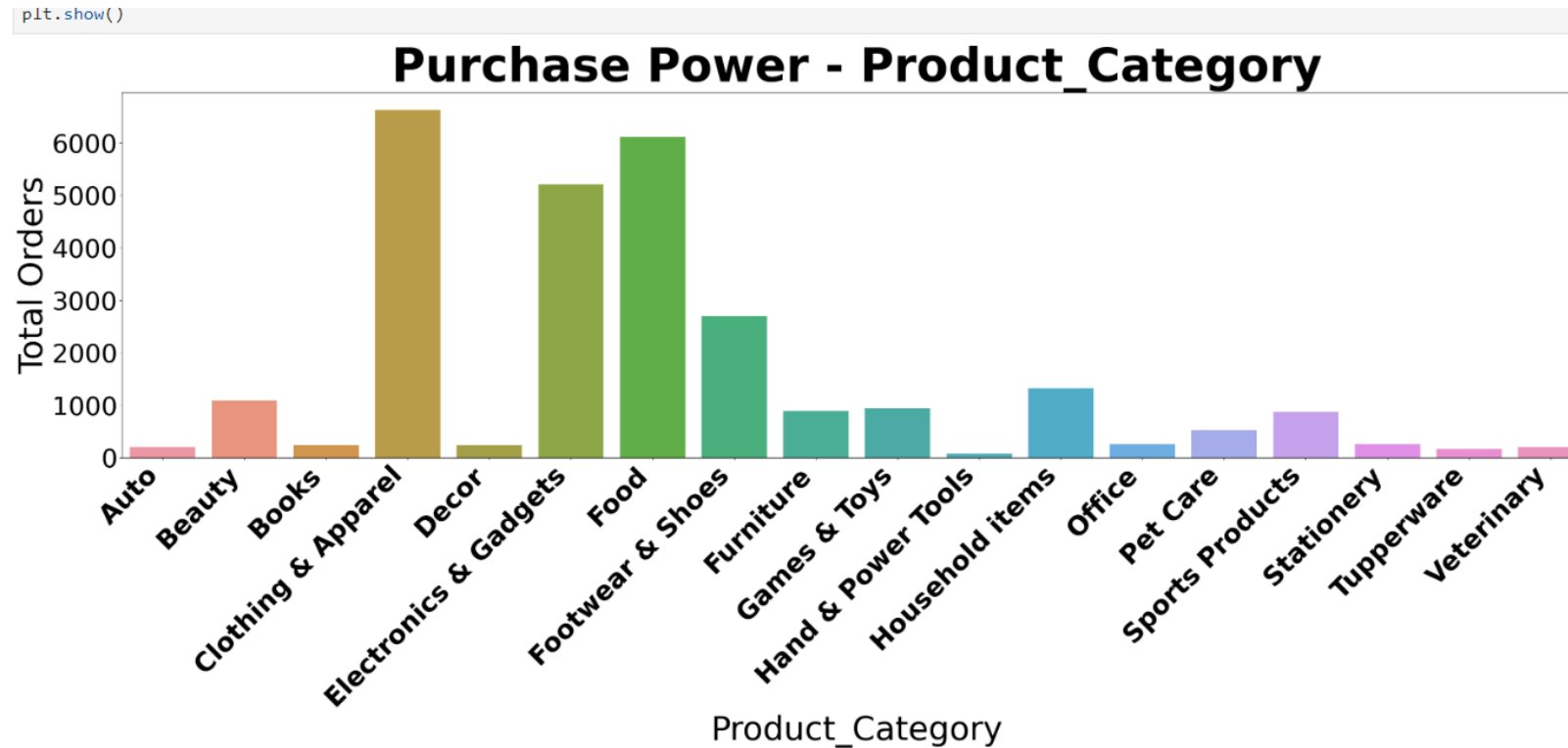
State Wise Analysis



The above graphs conclude that Uttar Pradesh is the state which has most of the Sales in Diwali.

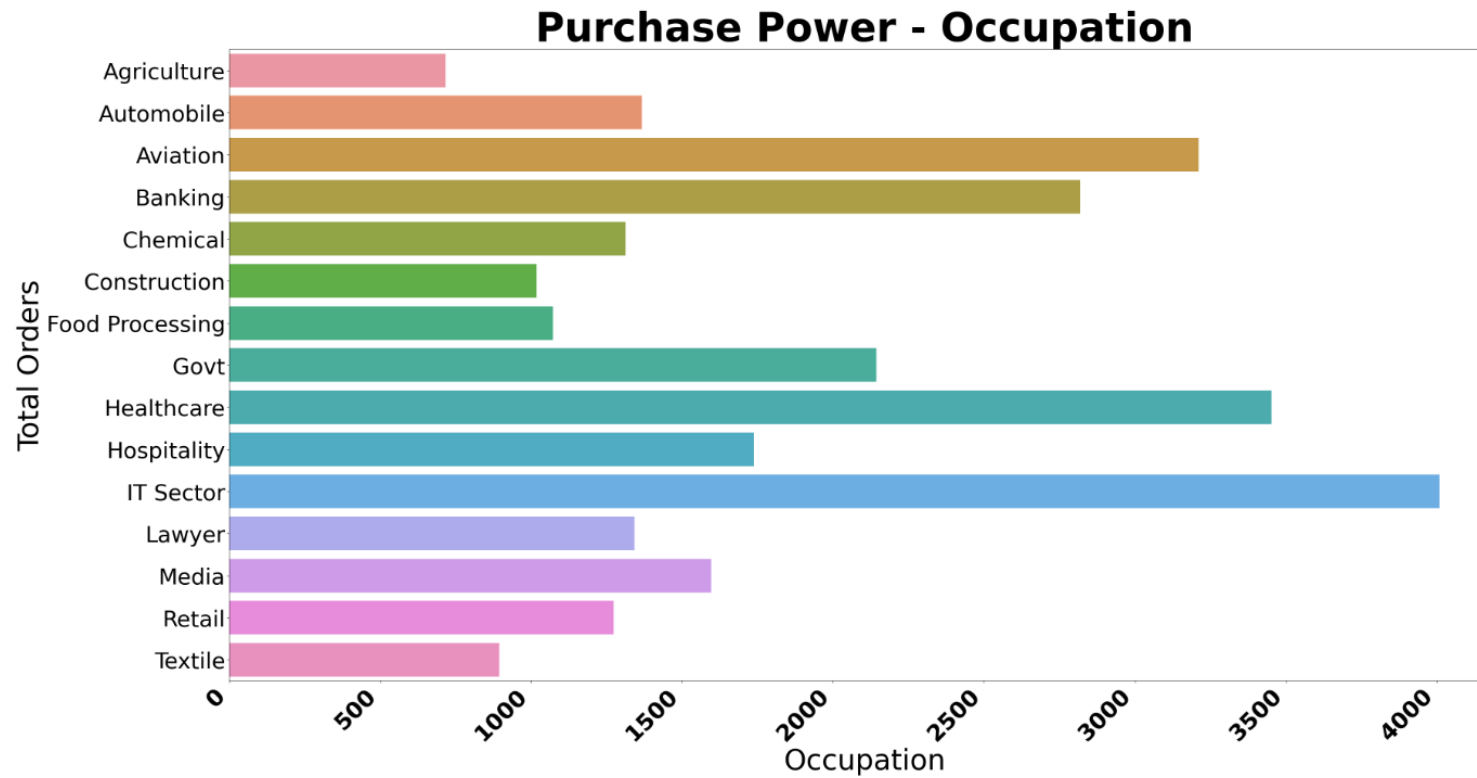


Product Category Wise Analysis



From above graph, we can conclude that Mostly Clothing & Apparel have been ordered by people in Diwali.

Occupation Wise Analysis



In above graph, people working in the IT SECTOR has bought most of the products in these Diwali.

Conclusion

- *From above graphs we conclude that most of the buyers are females and even the _____ purchasing power of females are greater than men*
- *On the basic of graphs conclude that the Orders count of the Product is higher for the Females in both married and Unmarried . And the purchase power is higher for the Unmarried persons.*
- *From above graphs we can see that most of the sold products are from Food, Clothing and Electronics category*
- *From above graphs we can see that most of the orders & total sales/amount are from Uttar Pradesh, Maharashtra and Karnataka respectively*
- *From above graphs we can see that most of the buyers are working in IT, Healthcare and Aviation sector.*