



# Sales Data Analysis Report

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## Executive Summary:

According to our data, there is a chance to improve customer experience and revenue. This analysis is performed on the basis of Gender, Age, State, Marital status, Occupation & Product category.

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## Introduction-

The purpose of this data analysis project report is to examine sales data in order to enhance customer experience and drive revenue growth. By leveraging the insights gained from this analysis, we aim to identify areas of improvement, optimise customer interactions, and enhance overall sales performance.

In today's highly competitive business landscape, delivering exceptional customer experience has become paramount for sustained success. A positive customer experience not only fosters loyalty and advocacy but also has a direct impact on revenue generation. Therefore, understanding and addressing the factors that influence customer satisfaction and purchasing behaviour is crucial for any business.

Through this data analysis project, we aimed to analyse sales data to uncover key trends, patterns, and opportunities that could enhance the customer experience and boost revenue. By examining various aspects of the sales process, such as customer interactions, product performance, and market dynamics, we sought to provide actionable recommendations that would drive meaningful improvements in our sales strategy.

## Methodology-

To conduct the sales data analysis, a systematic approach was followed to ensure accuracy and reliability in the findings. The methodology encompassed the following steps:

- 1. Data Collection:** Sales data from the designated time period was collected from <https://www.kaggle.com/>, including customer profile, sales amount, product details etc...
- 2. Data Preprocessing:** Before analysis, the collected data underwent preprocessing steps to ensure its quality and consistency. This involved cleaning the data by removing duplicates, handling missing values, and resolving any inconsistencies or errors.
- 3. Exploratory Data Analysis (EDA):** Exploratory Data Analysis was conducted to gain a preliminary understanding of the data. Descriptive statistics, Visualisation technique plotting including measures of central tendency and dispersion, were calculated to summarise the data.
- 4. Reporting:** The findings, insights, and recommendations were compiled into a comprehensive data analysis report. The report presented the analysis results in a clear and organised manner using visualisations, tables, and concise explanations.

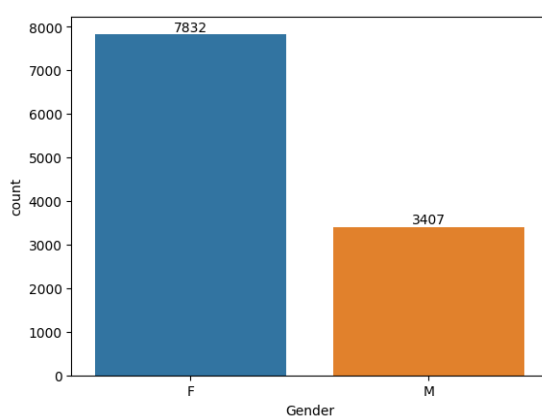
## Key Findings & Recommendations-

The analysis of the sales data focused on addressing several key business questions related to customer engagement, customer demographics, regional customer base, purchasing

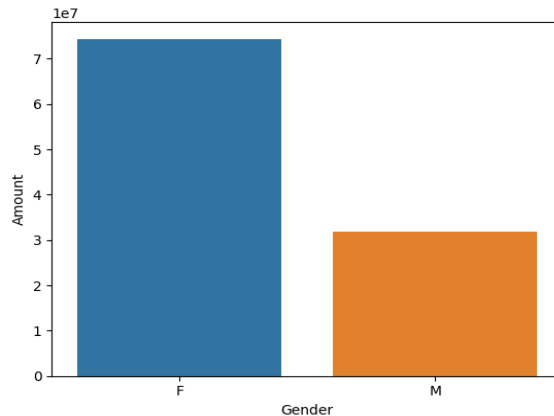
power analysis, customer occupations, popular product categories, and best-selling products. The key findings are as follows:

### 1. Gender-Wise Customer Engagement:

The analysis revealed that the customer engagement levels varied between genders. Female customers showed higher engagement levels in terms of repeat purchases and average order value compared to male customers.



**Gender vs count**

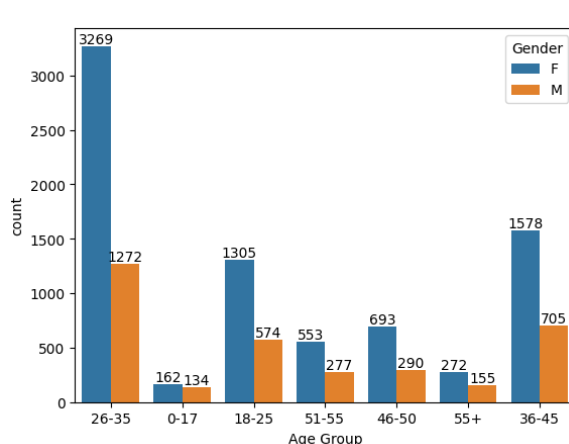


**Gender vs amount**

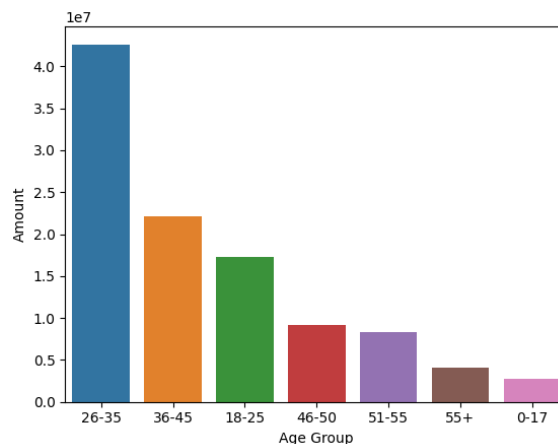
This finding suggests the importance of tailoring marketing strategies and product offerings to cater to the preferences and needs of each gender.

### 2. Age Group of the Best Customers:

By examining customer data, it was found that customers belonging to the age group of 26-35 exhibited the highest purchasing activity and loyalty. They accounted for the largest share of revenue and had a higher frequency of purchases compared to other age groups.



**Age Group vs Gender**

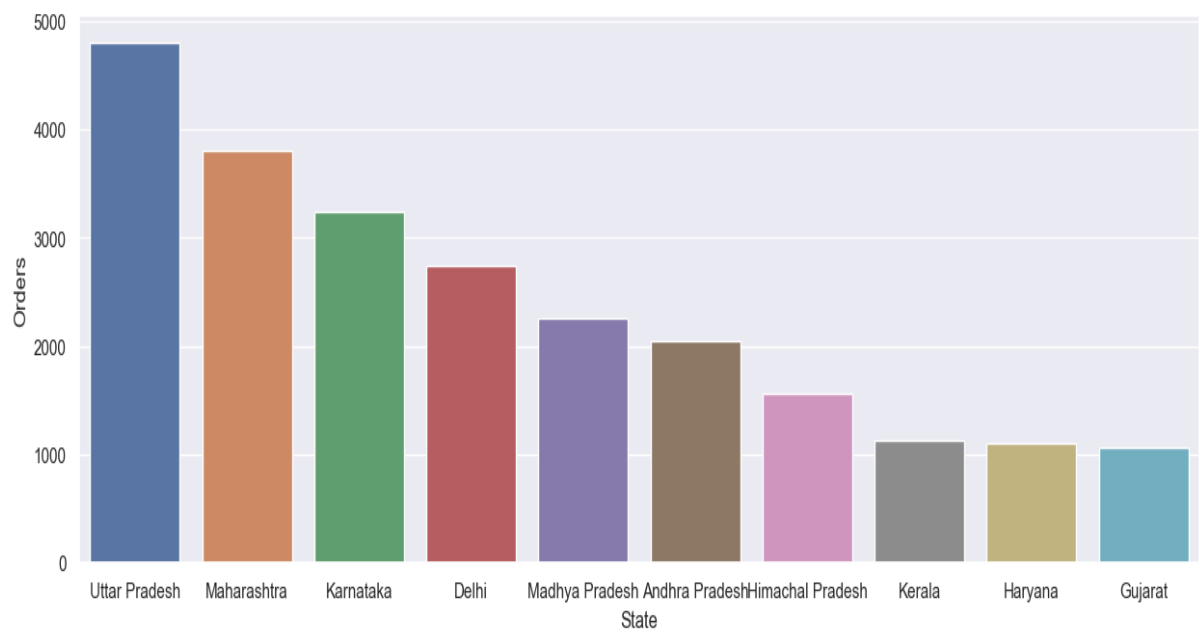


**Total Amount vs Age Group**

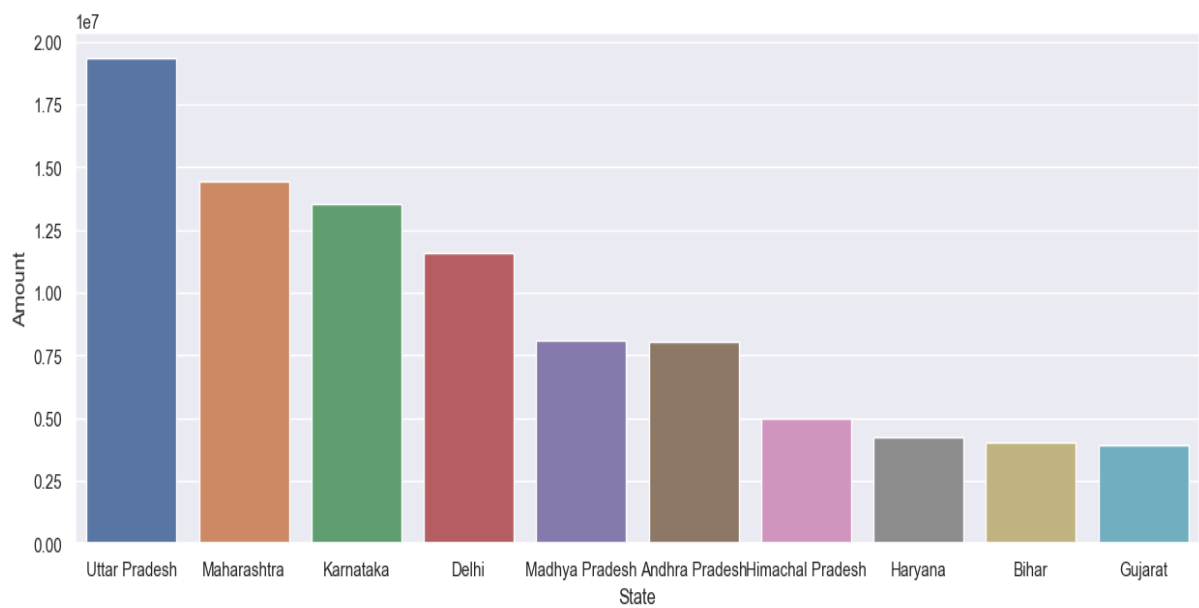
This finding highlights the significance of targeting marketing campaigns and promotions specifically towards this age group to maximise sales potential.

3. States in India with the Highest Customer Base:

The analysis identified the top states in India with the highest customer base. Uttar Pradesh, Maharashtra and Karnataka emerged as the regions with the largest customer bases, indicating significant market potential.



Orders vs States

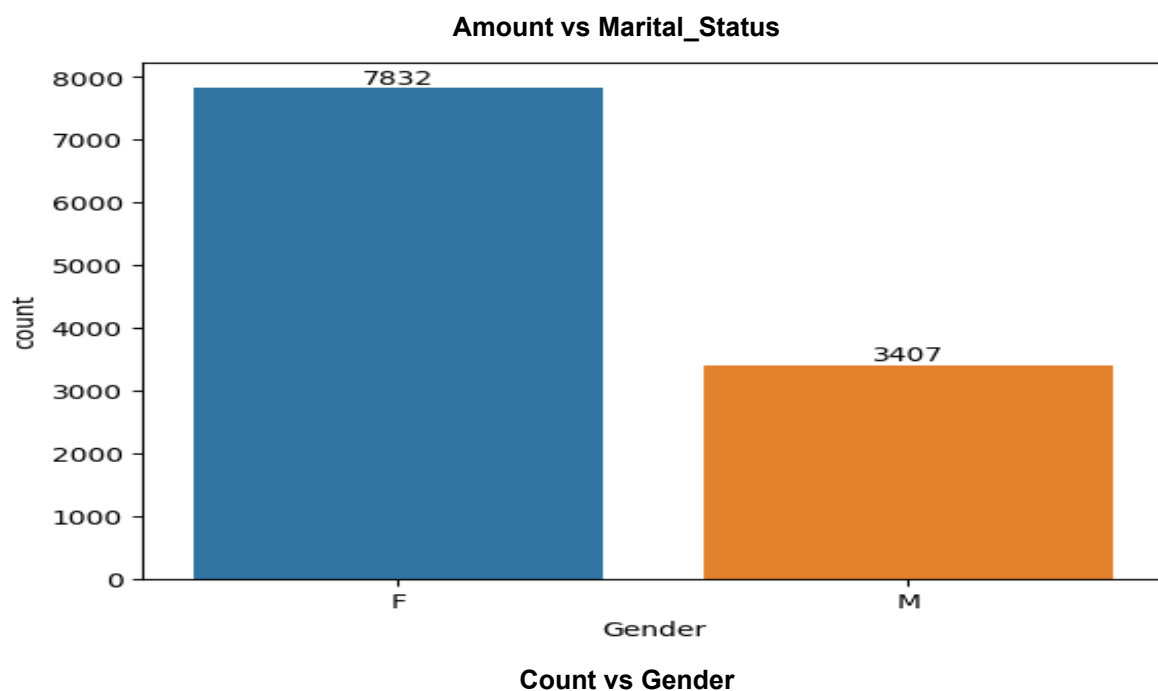
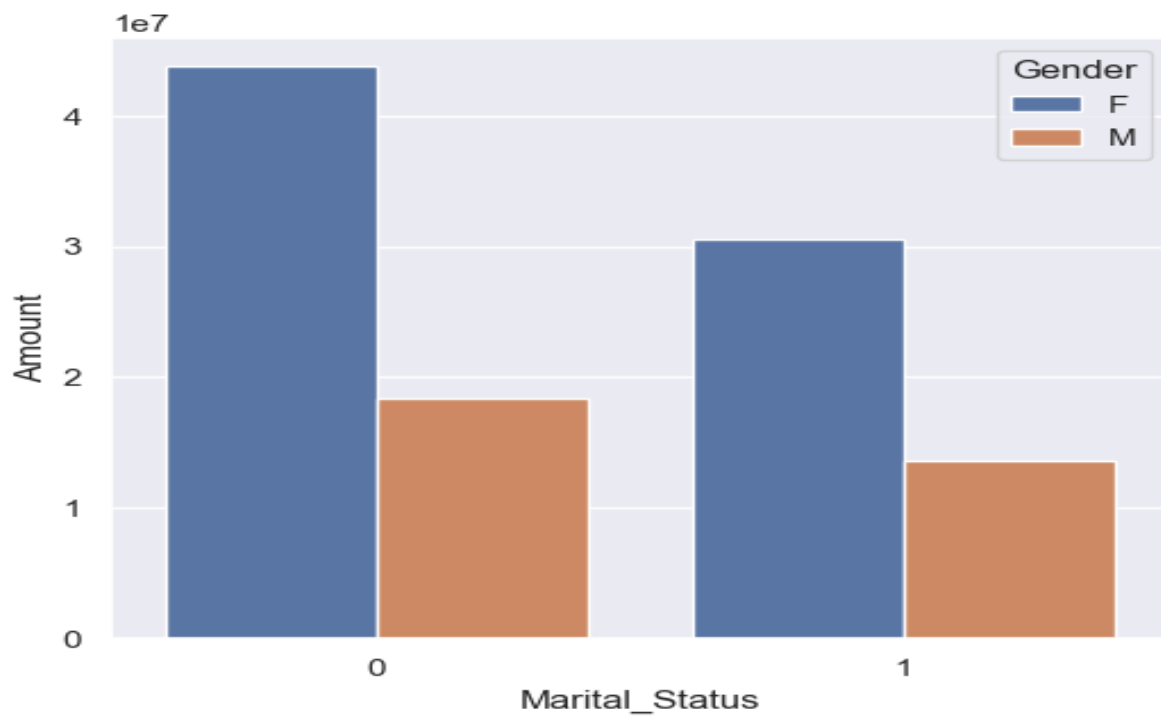


Amount vs State

Focusing resources and marketing efforts on these regions can yield substantial customer acquisition and revenue growth opportunities.

#### 4. Purchasing Power Analysis Based on Marital Status:

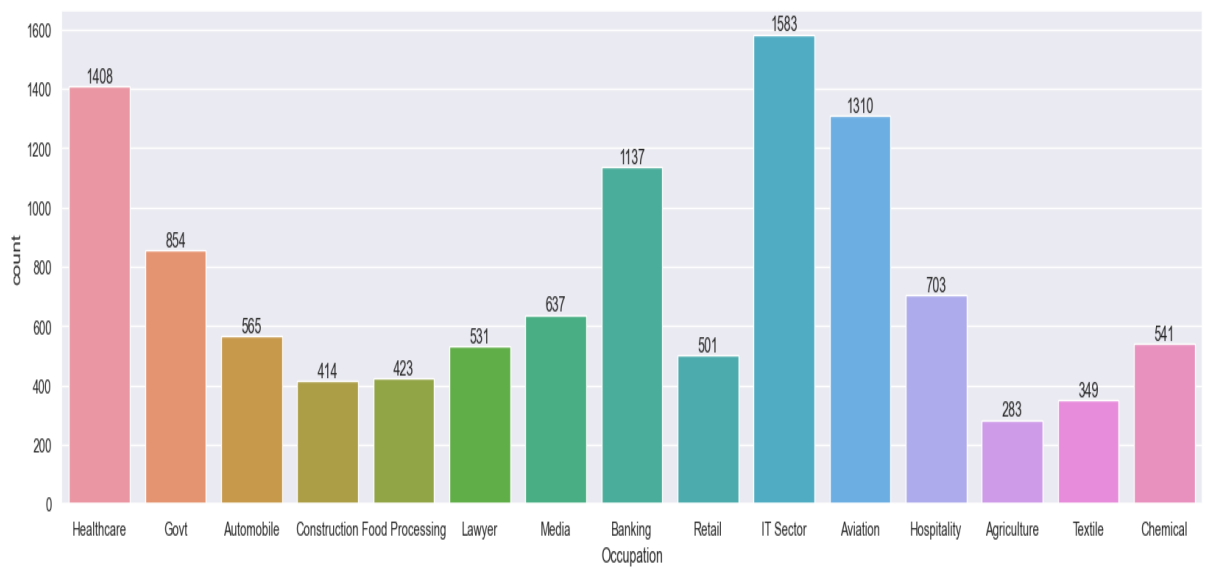
The analysis examined the purchasing power of customers based on their marital status. Married customers (women) were found to have higher average order values and tended to purchase more frequently compared to unmarried customers.



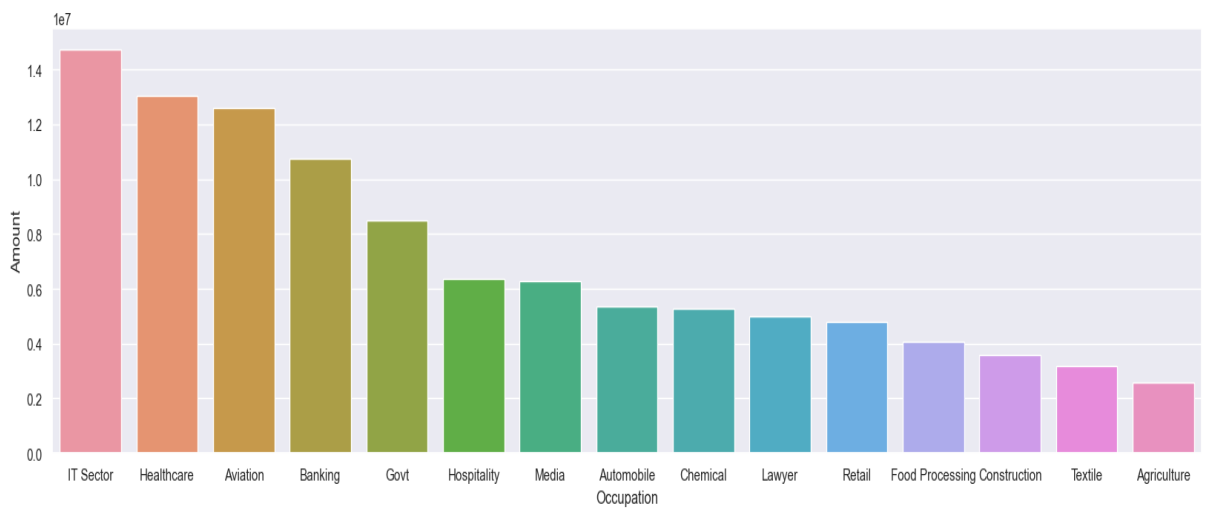
Understanding the different purchasing behaviours and preferences of married and unmarried customers can enable targeted marketing strategies to effectively cater to their specific needs.

5. Customer Occupations and Their Impact on Overall Sales:

Analysing customer occupations revealed that customers working in the IT, Healthcare and Aviation sector contributed significantly to overall sales. Their higher purchasing power and propensity to purchase premium products impacted the revenue generated.



Count vs Occupation

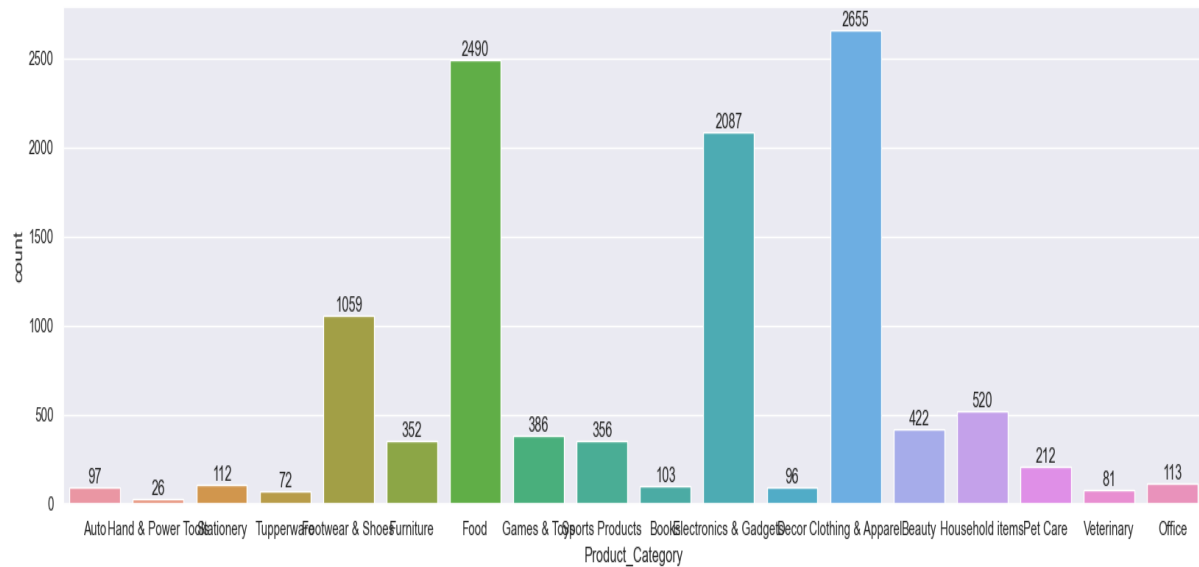


Amount vs Occupation

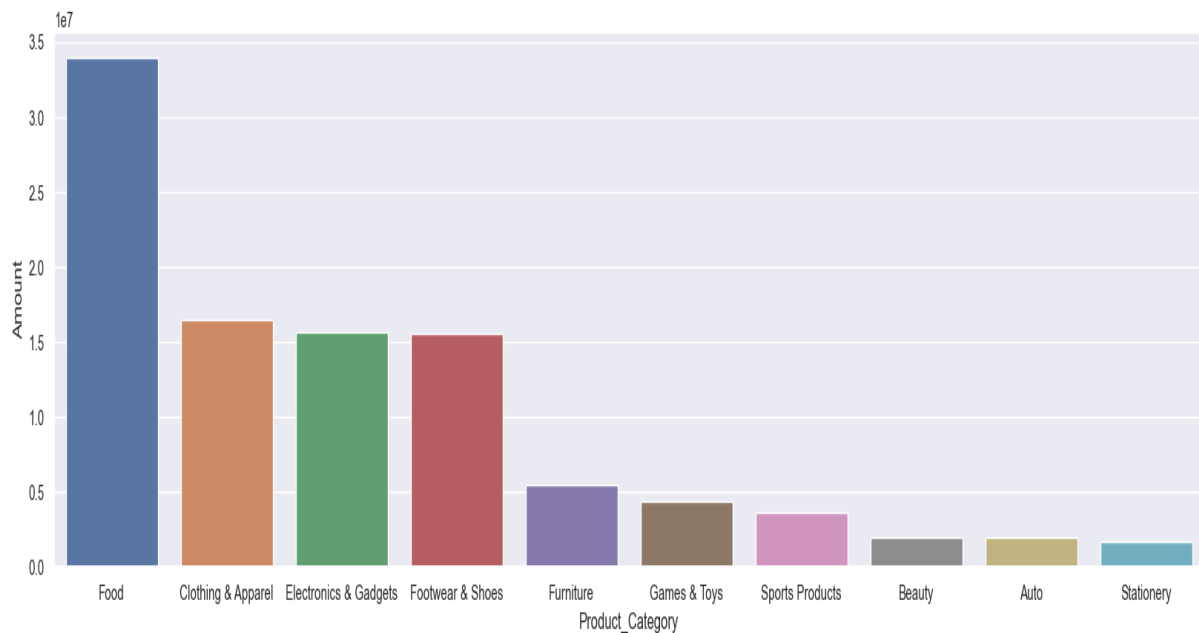
Identifying and targeting specific occupational groups can enhance customer engagement and drive sales growth.

## 6. Most Popular Product Categories:

The analysis identified the most popular product categories based on sales volume and revenue. The Food, Clothing and Electronics category emerged as the top three product categories with the highest sales and customer demand.



**Count vs Product\_Category**

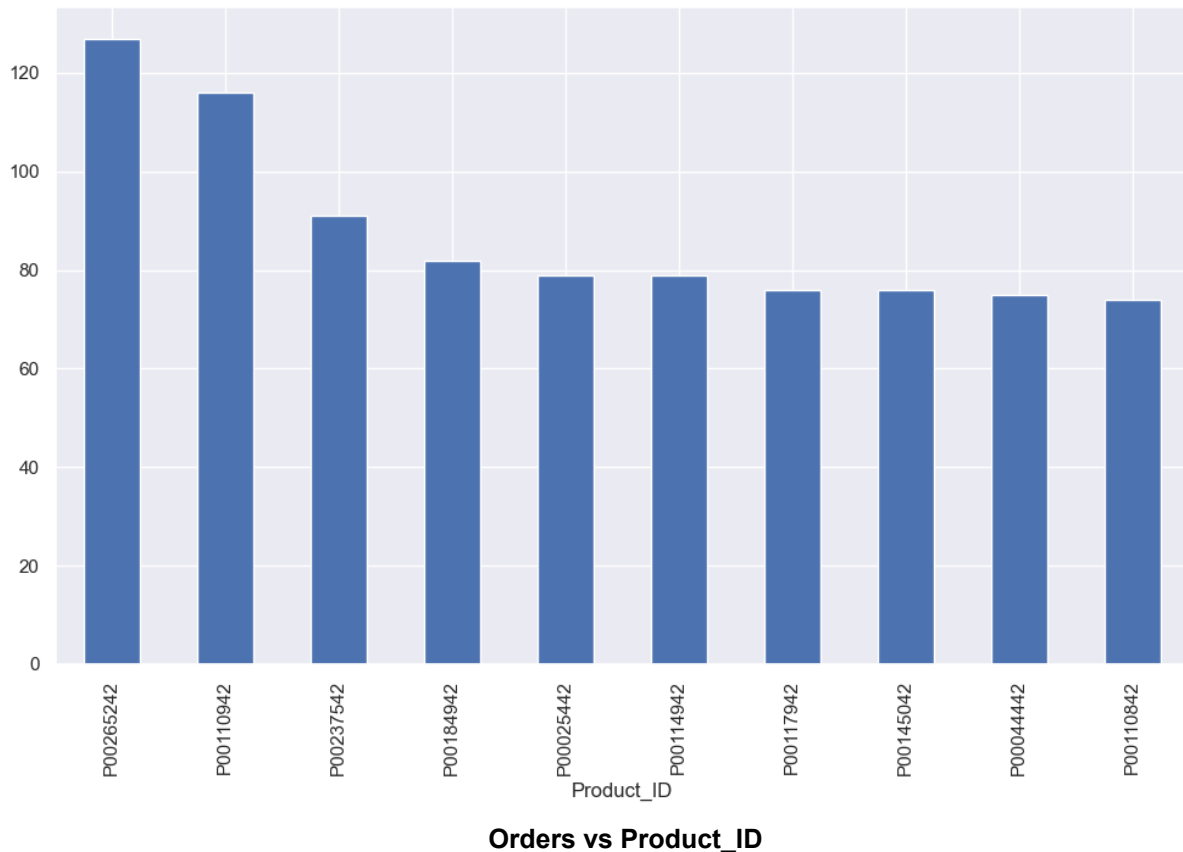


**Amount vs Product Category**

Allocating resources and optimising marketing strategies for these popular categories can yield higher conversion rates and revenue growth.

## 7. Top 10 Best-Selling Products:

By analysing sales data, the top 10 best-selling products are P00265242, P00110942, P00237542, P00184942, P00025442, P00114942, P00117942, P00145042, P00044442 & P00110842. These products accounted for a significant portion of the overall revenue.



Understanding the characteristics and features that make these products successful can inform product development and marketing strategies to drive sales of similar products.

These key findings provide insights into customer engagement, demographics, regional variations, purchasing power, occupations, popular product categories, and best-selling products. By leveraging these findings and recommendations, businesses can refine their marketing strategies, optimise product offerings, target specific customer segments, and maximise revenue generation. These insights serve as a foundation for data-driven decision-making, enabling businesses to enhance customer satisfaction, improve sales performance, and drive overall business growth.

## **Conclusion-**

Married women age group 26-35 yrs from UP, Maharashtra and Karnataka working in IT, Healthcare and Aviation are more likely to buy products from Food, Clothing and Electronics category.