

# Wayne Enterprises: Customer Segmentation Dashboard

## Objective:

This project aims to provide an in-depth analysis of customer demographics, spending behaviour, marketing campaign effectiveness, and high-value customer segmentation, leveraging data from the "Customer Segmentation: Clustering" dataset from Kaggle. The primary objective is to generate actionable insights to improve customer targeting, enhance marketing strategies, and identify future business opportunities.

## Key Insights and Analysis:

### 1. Customer Demographics Overview:

- The dataset comprises a total of **2,240 customers**, with key demographics such as age, marital status, household size, and education level.
- **Age Distribution:** A detailed breakdown of customer age groups shows a diverse customer base, with a **significant portion in the 50-55 years age range** (392 customers). The dataset also highlights niche segments in the 80-100 years age range, which presents a unique opportunity for targeted marketing.
- **Marital Status:** A substantial **38.6% of customers are married, while 21.4% are single**. This distribution can help tailor personalized marketing campaigns.
- **Household Size vs. Income:** The relationship between household size and average income reveals distinct income brackets across education levels, enabling businesses to understand the purchasing power of different household types.

### 2. Customer Spending Behavior Analysis:

- The **total spending of ₹1,356,988** falls short of the target of ₹2,000,000, with **store spending contributing the most (₹529,865)**, followed by web spending (₹363,985), catalog (₹315,831), and deals (₹147,283).
- **Income Segmentation: High-income customers (217)** contribute a significant portion to the total spending, while medium-income (939) and low-income (1,084) customers also exhibit diverse spending behaviors.

- **Education Level Impact on Product Spending:** Education level is shown to significantly influence spending behavior, with **graduation-level customers spending the most** across various product categories, including wines and meat products.

### 3. Marketing Campaign Effectiveness:

- **Campaign Response Rate:** The campaign response rate stands at **29.78%**, with a **total of 667 responses**. The revenue generated from the campaigns is **₹7,337**, with a **total campaign cost of ₹2,001**.
- **Campaign Performance:** A comparative analysis of campaigns (Cmp1 to Cmp5) shows varied levels of success. Identifying the most effective campaigns provides valuable insights for refining future strategies.
- **Demographic Influence on Campaign Response:** Education and marital status play significant roles in the distribution of campaign responses. Campaigns targeting customers with specific demographics can be optimized for higher engagement and revenue generation.

### 4. Customer Insights and Future Opportunities:

- **High-Value Customers (HVCs):** With an **average recency of 49 days**, high-value customers represent a key segment for future growth. The **luxury customer** category consists of **50 customers**, showcasing a potential area for premium product offerings.
- **Segmentation by Education and Marital Status:** Bar charts and treemaps effectively highlight the distribution of high-value and buying customers, segmented by education level and marital status, to identify the most lucrative customer categories for retention and upselling.
- **Spending vs. Recency Analysis:** Scatter plots examining the relationship between average recency and spending indicate that retaining customers with high spending potential within short recency periods is crucial for increasing revenue.

**Conclusion:**

- This comprehensive analysis provides a holistic understanding of customer demographics, spending behaviour, and marketing campaign effectiveness, with a focus on high-value customer segmentation.
- The insights derived from this report can help businesses implement targeted marketing strategies, optimize resource allocation, and explore future growth opportunities.
- By leveraging this data, companies can refine their customer acquisition and retention strategies to achieve sustained growth and profitability.

This Tableau project highlights the power of data visualization in uncovering critical business insights, ensuring that data-driven decisions lead to more efficient and impactful business strategies.