

# **Analyzing Vrinda Store's Performance and Customer Dynamics**

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## **Abstract:**

- In the competitive landscape of retail, understanding customer behavior and market trends is crucial for business success. In this technical paper, we present a comprehensive analysis of Vrinda Store's data to uncover insights into sales patterns, customer demographics, and channel effectiveness. By leveraging data analytics techniques, we aim to provide actionable recommendations to enhance Vrinda Store's sales and marketing strategies.

## **Introduction:**

- Overview of Vrinda Store and the significance of data analysis in retail.
- Objectives of the analysis and structure of the paper.

## **Data Description:**

- Description of the dataset containing customer demographics, transaction details, and channel information.
- Explanation of key variables including Order ID ,Customer ID,Date,Status, Gender, Age group, Month, Status, Channel, SKU, Category, Size, Qty.currency, Amount, ship-city , ship-state, ship-postal-code and ship-country.

## **Comparative Analysis:**

- Visualization comparing sales and orders using a single chart to identify trends and correlations.
- Insights into the relationship between sales volume and order frequency.

## **Gender Analysis:**

- Examination of purchasing behavior by gender in 2022 to determine whether men or women made more purchases.
- Implications of gender-based purchasing trends on marketing strategies.

## **Order Status Analysis:**

- Identification and analysis of different order statuses in 2022, including delivered, returned, refunded, and canceled.
- Impact of order statuses on customer satisfaction and operational efficiency.

## **Geographic Analysis:**

- Identification of the top 5 states contributing to sales and their respective contributions.
- Strategic implications for targeting high-performing regions and optimizing supply chain operations.

**Age and Gender Relationship:**

- Exploration of the relationship between age and gender based on the number of orders.
- Insights into demographic trends and their implications for product assortment and marketing campaigns.

**Channel Contribution Analysis:**

- Evaluation of the contribution of different sales channels to overall sales revenue.
- Identification of key channels driving maximum sales and their performance metrics.

**Conclusion and Recommendations:**

- Summary of key findings, including the dominance of women in purchasing, top-performing states, and preferred sales channels.
- Actionable recommendations for improving sales, including targeting women customers aged 30-49 in Maharashtra, Karnataka, and Uttar Pradesh through targeted marketing campaigns on Amazon, Flipkart, and Myntra.
- Women are more likely to buy compared to men (~65%)
- Maharashtra, Karnataka and Uttar Pradesh are the top 3 states (~35%)
- Adult age group (30-49 yrs) is max contributing (~50%)
- Amazon, Flipkart and Myntra channels are max contributing (~80%)

**Future Directions:**

- Suggestions for future analysis and optimization strategies, such as personalized marketing and customer segmentation.
- Target women customers of age group (30-49 yrs) living in Maharashtra, Karnataka and Uttar Pradesh by showing ads/offers/coupons available on Amazon, Flipkart and Myntra.

**References:**

- Citations for methodologies, algorithms, and previous studies used in the analysis.

This technical paper provides a comprehensive overview of customer behavior and sales trends at Vrinda Store, offering valuable insights and recommendations for enhancing business performance and customer satisfaction.

**Project link:** <https://github.com/dhruv230607/Data-Analysis>