Vrinda-Store-Data-Analysis (Interactive Dashboard creation using MS Excel)

Project Objective:

I will use Microsoft Excel and data analysis skills to create a comprehensive annual sales report for The Vrinda Store in 2022. The report aims to provide actionable insights to the store owner, enabling them to better understand their customers and formulate strategies for increased sales in 2023.

Dataset used:

The dataset employed for this analysis is the "Vrinda Store Data" Excel sheet. It includes information relevant to sales, customer behavior, and other key metrics.

Questions (KPIs):

- Comparison of Sales and Orders: A comparison of sales and orders is presented using a single chart.
- Highest Sales and Orders by Month: Identification of the month with the highest sales and orders.
- Gender-Based Purchases: Analysis of whether men or women made more purchases.
- Order Status: An exploration of the different order statuses in 2022.
- Top Sales Contributing States: Identification of the top 10 states contributing to sales.
- Age and Gender Relation: Analysis of the relationship between age and gender based on the number of orders.
- Sales Channel Analysis: Identification of the channel contributing the most to sales.
- Highest Selling Category: Determination of the highest-selling product category.

Process:

The following steps were taken to accomplish the project objectives:

- Data Verification and Cleansing: The dataset was thoroughly reviewed for missing values and anomalies. Any identified issues were resolved to ensure data consistency and cleanliness regarding data types, formats, and values.
- Pivot Table Creation: Pivot tables were created to address each of the questions posed.
- Dashboard Development: The pivot tables were merged into a single interactive dashboard, incorporating slicers for dynamic exploration.

Dashboard:
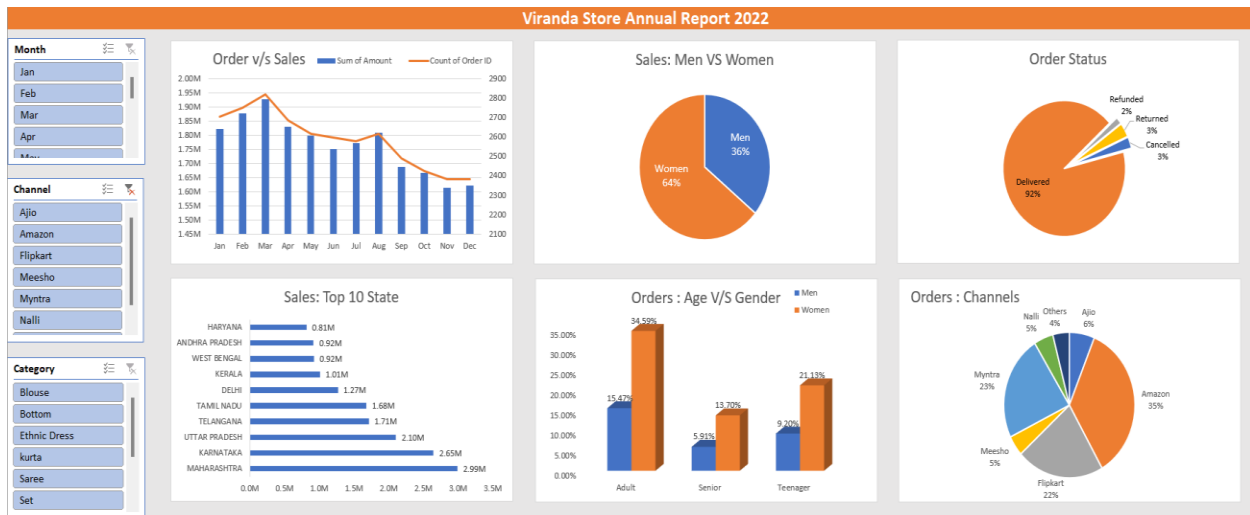
Analysis:

1. <u>Order Vs Sales:</u>

- By examining the bar graph, it's evident that the highest number of orders taken and delivered occurs in March, while November records the lowest orders and sales.
- The line graph reveals a clear correlation between sales and orders, but it also indicates a gradual decline in sales on a monthly basis with minor fluctuations.
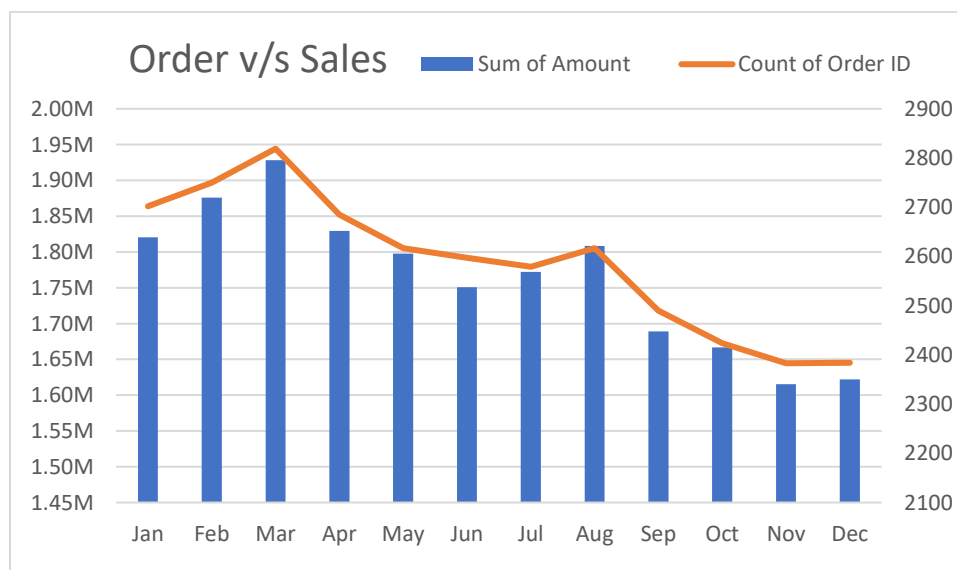

Figure 1: Order V/s Sales
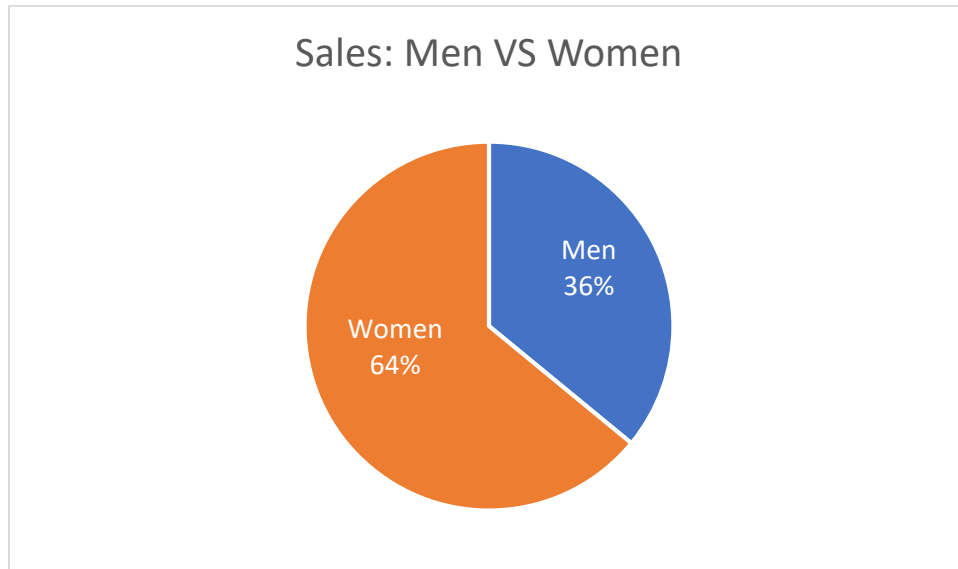
2. Sales: Men V/s Women:

Figure 2: Sales (Men V/s Women)

- Analyzed the pie chart to discern that the majority of orders at the Vrinda Store are initiated by women, contributing to 64% of sales, while men account for 34%.
- Leveraged data visualization techniques to highlight the significant disparity in order contributions between genders, offering valuable insights into customer behavior.
- Identified a noteworthy gender-based trend in sales, which could be utilized for strategic decision-making and marketing efforts to further enhance the store's performance.
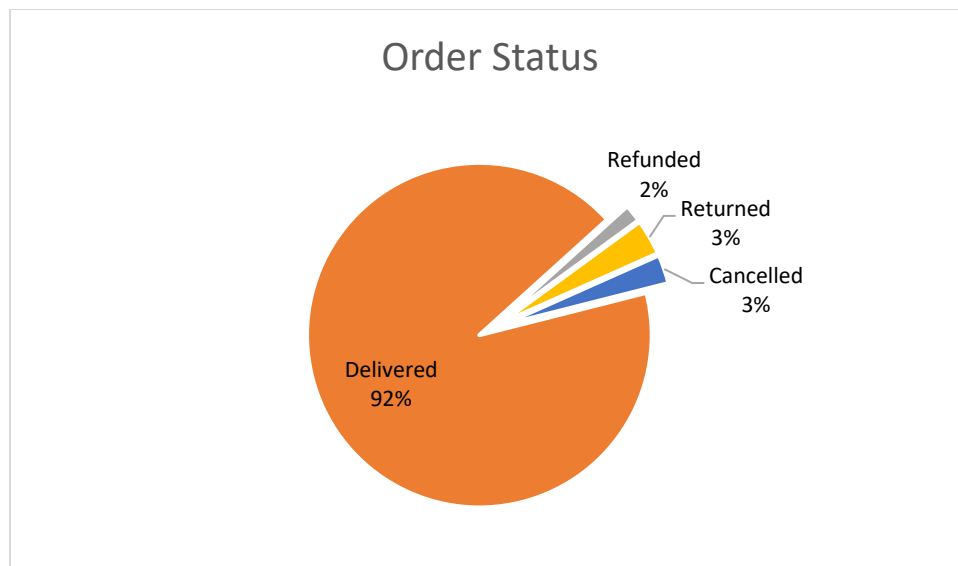
3. Order Status:

Figure 3: Order Status

- Analyzed the pie chart to identify that a significant portion of orders, constituting 92%, contributes to sales, while closely monitoring a small percentage of 2% refunds, 3% returned items, and 3% canceled orders. These percentages are currently manageable but warrant continuous attention to prevent potential issues for the Vrinda Store.
- Utilized data visualization techniques to highlight the distribution of order categories, enabling a clear understanding of the sales and potential challenges.
- Recommended ongoing monitoring and control measures to maintain the balance between sales and order issues, ensuring the store's sustained success and customer satisfaction.
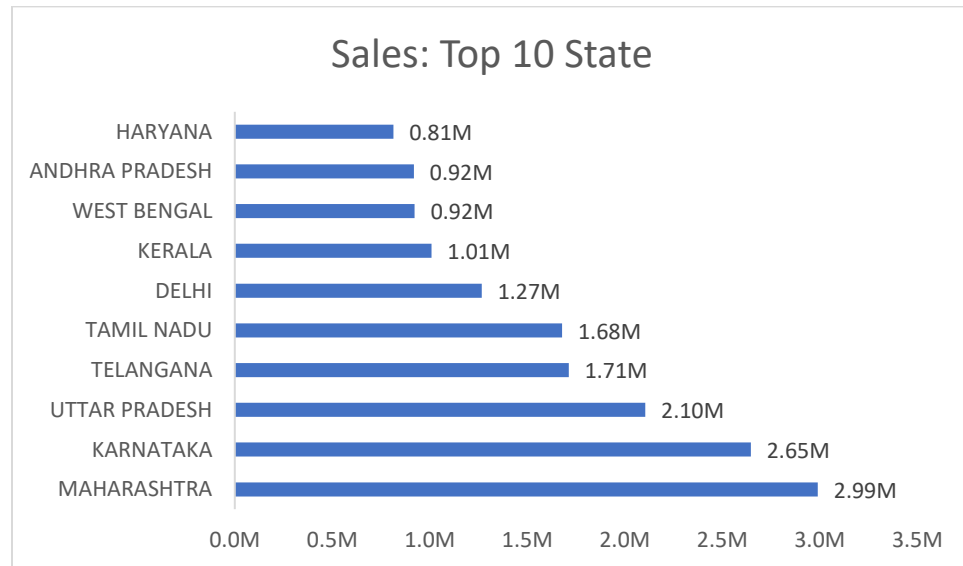
4. Sales: Top 10 State:

Figure 4: Sales (Top 10 State)

- Analyzed the bar graph to determine the geographical distribution of orders, identifying that the majority of orders originate from Maharashtra, followed by Karnataka, and Uttar Pradesh. This geographical insight informs strategic decision-making.
- Employed data visualization techniques to highlight the order distribution across different regions, providing a clear overview of the order sources.
- Recommended focusing on optimizing service and sales strategies in regions with high order volumes while exploring growth opportunities in other areas.
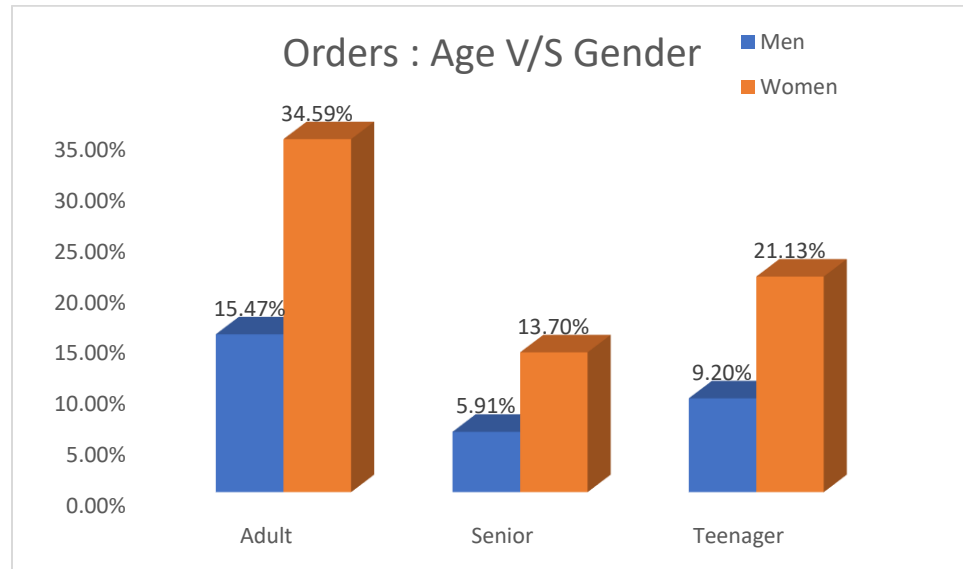
5. Order: Age V/S Gender:

Figure 5: Orders (Age V/s Gender)

- Analyzed a bar graph to uncover that the majority of orders are placed by adults, primarily in the age range of 30 to 50. Among adults, women contribute significantly with 34.59% of orders, while men's contribution is comparatively lower at 15.47%.
- Noted that senior citizens also place orders, with women representing 13.7% of this demographic, while senior men's contributions stand at 5.91%. Teenagers fall between these groups in terms of order volume.
- Utilized data visualization methods to highlight the order distribution among different age groups and genders, providing valuable insights for targeted marketing strategies.
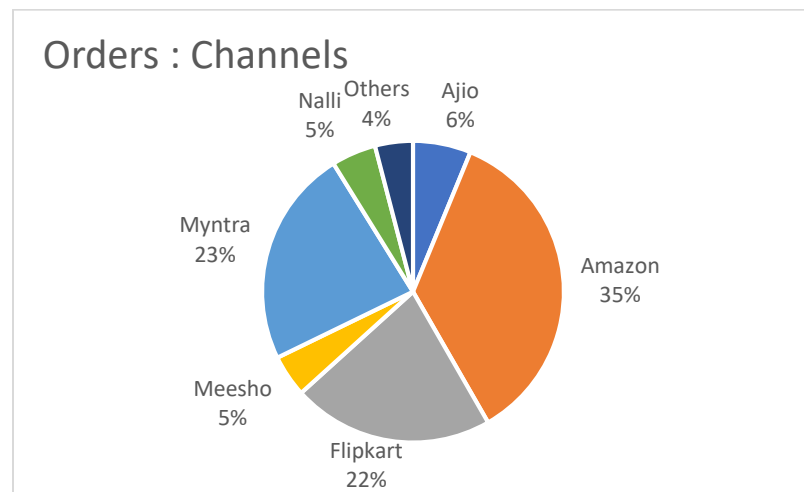
6. Orders: Channel

Figure 6: Orders (Channels)

- Analyzed a pie chart to determine that the majority of orders are received from a specific sales channel, contributing 35% of total sales. Myntra and Flipkart follow closely behind, accounting for 23% and 22% of sales, respectively.
- Highlighted the importance of optimizing sales and marketing strategies for the top-performing channel, potentially increasing its contribution to sales even further.
- Recommended further evaluation and investment in channels with lower contributions to improve overall sales performance.

Project Insight:

Based on the analysis, the following key insights were gained:

- Women customers displayed a higher inclination to purchase products compared to men, accounting for approximately 65% of the customer base.
- The top three states contributing to product purchases were Maharashtra, Karnataka, and Uttar Pradesh.
- The age group comprising adults aged 30-49 years contributed the most to sales, accounting for approximately 50% of total purchases.
- Amazon, Flipkart, and Myntra were the channels from which customers placed the maximum number of product orders.
- The highest-selling product category was Set which is Jwellery Set.

Final Conclusion:

To enhance sales at the Vrinda Store, the following targeted strategies are recommended:

- Focus marketing efforts on women customers, as they represent a significant portion of the customer base.
- Concentrate advertising, offers, and coupons on the age group between 30 and 49 years, as they are the primary contributors to sales.
- Direct marketing efforts towards states like Maharashtra, Karnataka, and Uttar Pradesh, which are the top product-buying regions.
- Prioritize sales channels such as Amazon, Flipkart, and Myntra, as they attract the maximum number of orders.
- By implementing these recommendations, Vrinda Store can enhance its sales performance in 2023 and cater to the preferences of its diverse customer base effectively.