

सादा / SAADAA

PRODUCT SALES AND CUSTOMER ENGAGEMENT Report

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Better Basics
FOR EVERYONE

रहो सादा, पहनो सादा

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INTRODUCTION AND OBJECTIVE

Thank you for providing me the dataset from Saadaa. After thoroughly reviewing the dataset, I have conducted a comprehensive data analysis to uncover key trends and actionable insights. This report outlines the data quality issues identified during the initial review, the steps we took to clean and prepare the data, and the results of our analysis, which were visualized using Power BI.

My aim is to provide a clear and structured summary of the data analysis process, the visualizations created, and the insights derived, which can help drive better business decisions for Saadaa. Below, I detail the steps followed during this analysis and provide suggestions for additional data points that could enhance future analysis.

DATA CLEANING AND PREPARATION

Upon examining the dataset, the following actions were performed to ensure data quality and readiness for analysis:

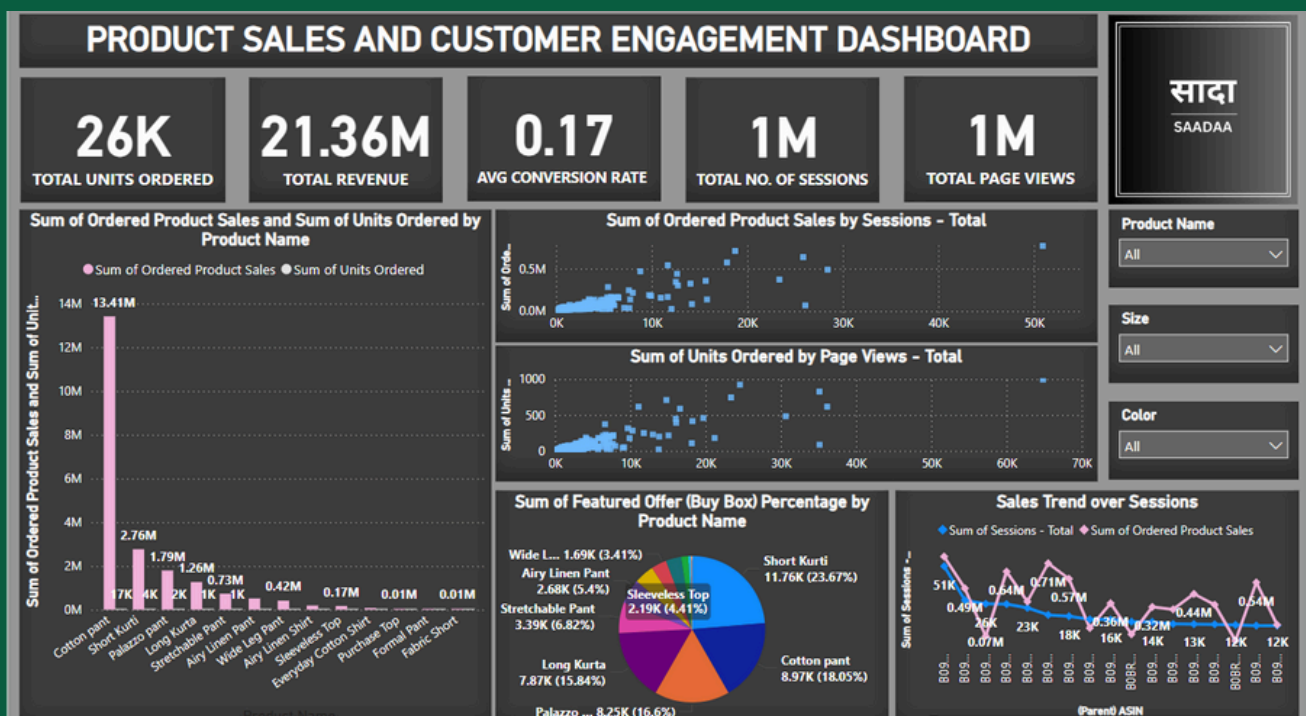
- **Null Value Check:** The dataset contained no missing value.
- **Special Characters Handling:** Columns with '%', '₹', or other non-numeric characters were cleaned by replacing them with spaces, and subsequently converting the cleaned columns to float format, particularly for percentage and currency fields.
- **Whitespace Removal:** Instances of extra spaces within values were identified and removed to avoid inconsistencies.
- **SKU Column Transformation:** The SKU column was parsed to extract product name, color code, and size code, which were then mapped to their respective full names for clarity in analysis.
- **Column Removal:** Irrelevant columns such as (Child) ASIN, Title, SKU, Brand, Color Code, and Product Code were removed to streamline the dataset for focused analysis.

DATA VISUALIZATION

The cleaned data was visualized in Power BI to explore key business metrics and trends. A Product Sales and Customer Engagement Dashboard was developed, including interactive slicers for product name, color, and size, which allow dynamic filtering of the visualizations. Key visualizations include:

- **Total Units Ordered:** A summary of the total units ordered across products.
- **Total Income:** Visualization of total sales generated, focusing on both individual product performance and cumulative sales.
- **Average Conversion Rate:** The rate at which sessions convert into sales, indicating the effectiveness of the product listings in driving purchases
- **Total Sessions and Page Views:** Trends in how often customers are visiting product pages (sessions) and the depth of engagement (page views).
- **Relationship Between Units Ordered and Page Views:** A correlation analysis was conducted to explore the relationship between Units Ordered and Page Views. Products with high page views but low units ordered may indicate a gap between interest and actual purchases, highlighting the need for targeted improvements in product listings or pricing strategies.

- **Relationship Between Ordered Product Sales and Sessions:** A similar relationship was analyzed between Ordered Product Sales and Sessions. This helps identify how well customer engagement (as measured by sessions) translates into actual revenue. Products with higher sessions but lower sales could benefit from a closer look at conversion rate optimization, potentially involving changes to product descriptions, customer reviews, or competitive pricing.
- **Sales Trend Over Time:** A time-series analysis of product sales and units ordered, providing insights into seasonal trends or promotional effects.



Note: Please go through PBIX file for the Dashboard

KEY MATRICS

- **Total Units Ordered:** Highlights the most popular products in terms of customer purchases.
- **Total Sales (₹):** The total revenue generated by each product, revealing top-selling items and their contribution to overall income.
- **Average Conversion Rate:** Insights into which products have the highest conversion rates, helping identify strong-performing items that successfully engage customers.
- **Sessions and Page Views:** Monitoring customer engagement across products to identify popular listings and areas for improvement.
- **Product-Level Trends:** Understanding the relationship between customer engagement (sessions, page views) and product performance (sales, units ordered).

INSIGHTS AND RECOMMENDATIONS

From the analysis, several actionable insights were identified:

- **High Conversion Products:**Products with higher conversion rates, such as Cotton Pants (0.53), Short Kurtis (0.13), Palazzo Pants (0.10), and Stretchable and Linen Pants (0.09), should be prioritized for promotion or inventory replenishment. These items are effectively converting customer interest (page views) into actual sales, making them strong candidates for targeted marketing or increased stock levels.
- **Underperforming Products:**Certain products, including Short Kurtis, Palazzo Pants, Sleeveless Tops, Stretchable Pants, and Wide Leg Pants, showed high page views but lower sales. This gap suggests an opportunity for optimization in areas like pricing, product descriptions, or customer reviews. Enhancing these factors may help boost conversion rates and turn more customer interest into purchases.

INSIGHTS AND RECOMMENDATIONS

- **Seasonal Sales Patterns:** The analysis of sales trends over sessions revealed fluctuations in product performance. Certain products, such as Cotton Pants and Short Kurtis, showed periods of high sales during peak sessions, indicating potential seasonal demand. However, other products like Palazzo Pants and Stretchable Pants exhibited inconsistent trends, with occasional spikes in sessions but lower sales conversions.

These insights suggest that aligning marketing efforts with these session peaks could significantly enhance sales performance. Seasonal promotions or time-limited offers during high-session periods for specific products could help capture customer interest and convert it into sales.

Conversely, products showing low conversion during high sessions may require additional optimization to capitalize on customer engagement.

- **Cross-Selling Opportunities:** Based on the analysis of units ordered and product combinations by size and color, there are opportunities for cross-selling. For example, bundling Stretchable Pants with Palazzo Pants or recommending complementary items like Short Kurtis with Sleeveless Tops could drive additional sales and improve overall basket size.

ADDITIONAL DATA FOR ENHANCED ANALYSIS

To further improve the robustness of this analysis and provide deeper business insights, additional data points could be incorporated, such as:

- **Geographical Data:** Regional sales performance would offer insights into which locations are driving demand for specific products, allowing for targeted marketing and inventory distribution.
- **Customer Demographics:** Age, gender, and other demographic information would enhance customer segmentation, enabling personalized marketing strategies.
- **Competitive Pricing Data:** Including competitor pricing for similar products would allow for better positioning in the market, potentially leading to adjustments in pricing strategies.
- **Marketing Spend:** Correlating marketing spend with product sales could help assess the effectiveness of campaigns and identify opportunities for optimization

CONCLUSION

The analysis of product sales and customer engagement metrics has provided valuable insights into product performance, conversion rates, and customer behavior. The visualizations in Power BI effectively highlight key trends and actionable insights that can guide future business decisions. Incorporating additional data such as geographical sales patterns and customer demographics would further enhance the precision and impact of the analysis

THANK YOU

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