

Problem statement:

Store sales products outline through multiple platforms. They want us to analyze their data and generate an annual report for them through which they can understand their existing cliental better and help them grow their business in the following year, i.e., 2023

Data Cleaning:

1. Check and resize the columns.
2. Check for any null values. No such null values are present.
3. Inconsistency in the data.

In the Gender col we do have inconsistency, values are: Men, Women, M, W we do not need both variations hence we need to find and replace all M, W to Men, Women.

In Quantity column we do have inconsistency, values are: 1,2,3,4,5, One, Two. Sure, again we find and replace One to 1 and Two to 2.

Data Processing:

1. For Age vs Gender analysis: need to group age into 3 pockets so that analysis can be done properly. We will insert a new column and use the below formula to pocket the age groups.
Formula: `=IFS(E2>=50,"Senior", E2>=30,"Adult", E2>=18,"Teenager")`

2. For Monthly analysis extract month from date:

Again, we need a new col for extracting the month. We will have to use the TEXT () function to extract the month. We have used the below formula for retrieving the month from the date column.

Formula: `=TEXT(G2,"mmm")` Note: “mmm” – month short form, “mmmm” –month long form.

Note: After applying the formula I have re-pasted the calculated column values as only values to avoid the slowing down of the process and thus optimizing the runtime.

Data Analysis:

1. Orders vs sales w.r.t month:

We have to get the month-on-month sales and month on month count of items sold. So, we create a pivot table and then a pivot chart with Amount, count of order ID in the values and Month in the rows. Note: Since the number of sales is in lakhs and count of orders is in thousands, we have to select count of orders as secondary axis, else it will portray count of orders as minimal compared to the sum of amount.

The sales axis as values up to lakhs making the axis hard to read at a go. To simplify that we have to use the below formula that can covert that into readable format.

→Go to format axis by clicking on the desired axis – number – format code – ‘general’ – ‘0.00,,"M"’

2. Maximum shopping done by which Gender:

We create a pivot table with values as sales and rows as gender. Now we can see the amount spent by male vs female. To represent this, we use piechart which instantly communicates how much is spent by each category.

Note: within the pie chart use Data callout and data Labels to get the value within the pie chart for instant communication. You can double click on data label and change the percentage representation to values by percentage is better.

3. Counting the number orders belonging to each order status:

We again took a pie chart for better representation of 4 order status and the percentage of orders belonging to each section. Note: Re-adjust all the sections and the data callout labels.

4. Top 5 states w.r.t sales:

This case we use a horizontal bar chart, for better representation. We used pivot table to get states and amount, and the only narrow done to top 5 states.

Note: The sales axis and data label for each bar w.r.t state as values up to lakhs making the axis hard to read at a go. To simplify that we have to use the below formula that can convert that into readable format.

→Go to format axis by clicking on the desired axis – number – format code – ‘general’ – ‘0.00,, "M"’

5. How many orders by total cliental w.r.t Age and Gender:

This means we will keep age groups in rows and Gender in columns and then with order ID we will be able to get the total orders made by respective groups like adult male or adult female etc. Note: Only by the numeric value we cannot find any relation between the sections hence we will be changing the values to % of grand total so that we get to understand easily what % of total orders is made by Teenager female or adult male or senior female, etc.

6. Which Channel has contributed the most into the sales:

This scenario as well we need to take % of grand total so that we get to understand easily what % of total orders is made by which platform. We will again use pie chart to represent the data so that we can find relation between the different platforms.

7. Lastly, we will introduce slicers w.r.t month, channel and category so that we get an overall understanding of our report.

Insights:

1. Overall, we can see that March is highly profitable as sales are all time high.
2. Maharashtra is state which brings in the maximum sales followed by Karnataka and Uttar Pradesh approx. 35% of total sales.
3. Women do the most shopping approx. 65% more compared to men.
4. Adult women in age group 30-49 do the maximum shopping contributing 50% to the sales.
5. Top 3 order channels are Amazon, Myntra and Flipkart with respect to the sales amount approx. 80% of the total sales amount.
6. While Blouse, top and kurta are something that is bought mostly by women, ethnic dress and western dress are mostly bought by men.

Recommendations:

By focusing on these specific areas—targeting key markets, engaging the top demographic groups, optimizing sales channels, and tailoring marketing efforts to product preferences—we can boost sales even further while strengthening customer loyalty and brand presence.

1. Capitalize on the High Sales in March

- **Recommendation:** Since March is identified as a peak month for sales, consider **targeting this period with exclusive promotions or limited-time offers**. This could include:
 - **Seasonal discounts** or special bundles to capitalize on high traffic.
 - **Early-bird promotions** leading up to March to extend the high-sales period.
 - **Loyalty or reward programs** for returning customers to boost repeat business during the month.

2. Focus on Maharashtra, Karnataka, and Uttar Pradesh

- **Recommendation:** These states account for around 35% of total sales, making them crucial markets. Consider the following:
 - **Localized marketing campaigns** in Maharashtra, Karnataka, and Uttar Pradesh (e.g., regional language advertisements, culturally relevant content).
 - **Regional influencer partnerships** to boost brand visibility and trust in these states.
 - **Targeted promotions** (e.g., special discounts or offers) that cater to the preferences and needs of consumers in these states.

3. Increase Engagement with Women Consumers

- **Recommendation:** Women contribute to around 65% more sales than men, so further engaging this demographic could result in even higher sales.
 - **Gender-specific marketing campaigns** that highlight products most purchased by women.
 - **Exclusive product lines** or collaborations with female influencers or celebrities to enhance appeal.
 - **Personalized shopping experiences**, such as styling tips or fashion advice, to drive higher conversion rates.
 - **Subscription models or membership programs** targeted towards women with exclusive perks (e.g., early access to sales, discounts, or free shipping).

4. Target the 30-49 Age Group of Women

- **Recommendation:** The 30-49 age group of women contributes significantly (50%) to sales. To maximize sales in this segment:
 - **Tailor marketing messages** around the interests, lifestyle, and needs of women in this age group (e.g., work-life balance, professional attire, family-oriented products).
 - **Cross-sell and up-sell** based on past purchasing behaviors, offering complementary products (e.g., offering accessories with ethnic wear or workwear).
 - **Engage in content marketing** that resonates with this age group, such as blog posts or videos related to work, family, and fashion.

5. Strengthen Sales Through the Top 3 Channels (Amazon, Myntra, Flipkart)

- **Recommendation:** Since these platforms account for around 80% of sales, consider:
 - **Optimizing product listings** on Amazon, Myntra, and Flipkart to increase visibility (e.g., using SEO-friendly keywords, high-quality images, and compelling descriptions).
 - **Enhanced advertising spend** or promotional campaigns on these platforms, including sponsored listings, deals, and flash sales.
 - **Loyalty programs** or incentives for customers who frequently purchase through these channels (e.g., discounts for repeat buyers or points-based systems).
 - **Partnerships with these platforms** for exclusive collaborations or co-branded campaigns that can attract more traffic.

6. Product-Specific Strategies Based on Gender Preferences

- **Recommendation:** The product preferences differ significantly between men and women:
 - **For Women:** Focus on promoting **blouses, tops, and kurtas** through curated collections or catalogues, ensuring that these products are front-and-center in marketing campaigns.
 - **For Men:** Promote **ethnic dresses and western wear** as the top choices for male customers. Consider bundling ethnic and western styles in combo offers.
 - **Upselling and Cross-selling:** Offer "complete the look" suggestions when customers are shopping for specific items. For instance, suggest accessories or matching products (e.g., pairing a blouse with a matching scarf or jewelry).
 - **Product Bundles:** Consider bundling items that are commonly purchased together (e.g., a blouse, top, and kurta set for women or ethnic dresses with matching accessories for men) to increase the average order value.

7. Explore Targeted Advertising and Personalization

- **Recommendation:** Use targeted advertising to drive sales based on demographic and behavioral insights:
 - **Facebook, Instagram, and Google Ads:** Leverage customer data to run targeted campaigns for specific regions (e.g., Maharashtra, Karnataka, Uttar Pradesh) and demographics (e.g., women aged 30-49).
 - **Email marketing:** Send personalized recommendations and exclusive offers to women in the 30-49 age group who have previously shown interest in specific products.
 - **Retargeting ads:** Implement retargeting strategies to re-engage customers who have abandoned carts, particularly for high-interest products like tops, kurtas, and ethnic wear.

8. Promote Gender-Neutral Products

- **Recommendation:** While there are clear gender-based preferences, consider developing and promoting **gender-neutral products** that could appeal to both men and women, such as versatile clothing items or accessories that can be styled by all genders. This could potentially expand the target audience and attract new customers specifically from the male audience.