Clothing Store Data Analysis - MS Excel

Data Cleaning

- Checked for null values and duplicates in all columns.

- Standardized the Gender column by replacing 'M' with 'Men' and 'W' with 'Women'.

- Corrected the Quantity field by replacing 'One' with '1' and 'Two' with '2'.

- Removed the Currency column as it only contained 'INR', which is redundant for this analysis.

	M1			fx	currency															
	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Order	Cust I	Gend(	Age	Date	Statu:	Chann	SKU	Categ	Size	Qty	currei	AMen	ship-c	ship-s	ship-p	ship-c	B2B		
2	171-102	1E+06	Women	44	######	Delivere	Myntra	JNE123:	kurta	XXL	1	INR	376	MOHALI	PUNJAB	140301	IN	FALSE		
3	405-218	2E+06	Women	29	######	Delivere	Ajio	SET414-	Set	L	1	INR	1449	GURUGI	HARYAN	122002	IN	FALSE		
4	171-164	2E+06	Women	67	######	Delivere	Myntra	SET261-	Set	S	1	INR	453	KOLKAT	WEST BI	700029	IN	FALSE		
5	404-749	7E+06	Women	20	######	Delivere	Amazon	SET110-	Set	M	1	INR	729	THANJA	TAMIL N	613007	IN	FALSE		
6	403-929	9E+06	Women	62	######	Delivere	Myntra	JNE2294	kurta	XXL	1	INR	544	GURUGI	HARYAN	122001	IN	FALSE		
7	407-129	1E+06	Men	49	######	Delivere	Flipkart	JNE379:	Westerr	XXL	1	INR	735	SANGLI	MAHAR.	416436	IN	FALSE		
8	407-129	1E+06	Women	23	######	Delivere	Meesho	JNE3801	kurta	XXL	1	INR	735	BENGAL	KARNAT	560029	IN	FALSE		
9	171-556	6E+06	Women	70	######	Delivere	Others	JNE340!	kurta	M	1	INR	435	GURUGI	HARYAN	122001	IN	FALSE		
10	408-293	3E+06	Women	75	######	Delivere	Amazon	JNE347	kurta	XL	1	INR	385	BENGAL	KARNAT	562149	IN	FALSE		

Data Processing

Creating Age Brackets:

- Added a new column for Age Brackets using the formula. We use the IF formula to create age groups according to three generations.
  `=IF(E2>50,"Boomers",IF(E2>=30,"Millennials","Gen Z"))`

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
DATE				fx	=IF(E2>50,"Boomers",IF(E2>=30,"Millennials","Gen Z"))														
2	1	171-102	1E+06	Women	44	"Gen Z"))	######	Delivere	Myntra	JNE1233	kurta	XXL	1	INR	376	MOHALI	PUNJAB	140301	IN	FALS
3	2	405-218	2E+06	Women	29	Gen Z	######	Delivere	Ajio	SET414-	Set	L	1	INR	1449	GURUGI	HARYAN	122002	IN	FALS
4	3	171-164	2E+06	Women	67	Boomers	######	Delivere	Myntra	SET261-	Set	S	1	INR	453	KOLKAT	WEST BI	700029	IN	FALS
5	4	404-749	7E+06	Women	20	Gen Z	######	Delivere	Amazon	SET110-	Set	M	1	INR	729	THANJA	TAMIL N	613007	IN	FALS
6	5	403-929	9E+06	Women	62	Boomers	######	Delivere	Myntra	JNE2294	kurta	XXL	1	INR	544	GURUGI	HARYAN	122001	IN	FALS
7	6	407-129	1E+06	Men	49	Millennials	######	Delivere	Flipkart	JNE3797	Westerr	XXL	1	INR	735	SANGLI	MAHAR,	416436	IN	FALS
8	7	407-129	1E+06	Women	23	Gen Z	######	Delivere	Meesho	JNE3801	kurta	XXL	1	INR	735	BENGAL	KARNAT	560029	IN	FALS
9	8	171-556	6E+06	Women	70	Boomers	######	Delivere	Others	JNE3405	kurta	M	1	INR	435	GURUGI	HARYAN	122001	IN	FALS
10	9	408-293	3E+06	Women	75	Boomers	######	Delivere	Amazon	JNE3474	kurta	XL	1	INR	385	BENGAL	KARNAT	562149	IN	FALS
11	10	404-264	3E+06	Women	43	Millennials	######	Delivere	Myntra	JNE3466	kurta	L	1	INR	771	VIJAYAV	ANDHR/	520002	IN	FALS
12	11	404-264	3E+06	Women	76	Boomers	######	Delivere	Amazon	JNE3795	kurta	S	1	INR	517	THIRUV,	KERALA	695018	IN	FALS
13	12	404-264	3E+06	Women	45	Millennials	######	Delivere	Myntra	J0181-TI	Top	M	1	INR	399	ARAKON	TAMIL N	631003	IN	FALS
14	13	408-026	265357	Women	18	Gen Z	######	Delivere	Amazon	SET217-	Set	XL	1	INR	786	GUWAH	ASSAM	781017	IN	FALS
15	14	403-926	9E+06	Men	44	Millennials	######	Delivere	Myntra	SET185-	Set	M	1	INR	911	BENGAL	KARNAT	562125	IN	FALS
16	15	407-044	442660	Women	52	Boomers	######	Delivere	Amazon	SET333-	Set	M	1	INR	967	HYDERA	TELANG	500098	IN	FALS
17	16	406-748	7E+06	Women	18	Gen Z	######	Delivere	Nalli	J0124-TI	Top	L	1	INR	523	NEW DE	DELHI	110062	IN	FALS

Vrinda Store   Project Video Link

Extracting Month Names:

- Added a new column for Month by extracting the month name from the date field using. $=TEXT(G2,"mmm")$

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H1				fx	Month													
1	index	Order	Cust I	Gend	Age	Generation	Date	Month	Statu:	Chanr	SKU	Categ	Size	Qty	AMen	ship-c	ship-s	ship-p	ship-c
2	1	171-102	1E+06	Women	44	Millennials	04-12-2022	Dec	Delivere	Myntra	JNE1233	kurta	XXL	1	376	MOHALI	PUNJAB	140301	IN
3	2	405-218	2E+06	Women	29	Gen Z	04-12-2022	Dec	Delivere	Ajio	SET414-	Set	L	1	1449	GURUGI	HARYAN	122002	IN
4	3	171-164	2E+06	Women	67	Boomers	04-12-2022	Dec	Delivere	Myntra	SET261-	Set	S	1	453	KOLKAT	WEST BI	700029	IN
5	4	404-749	7E+06	Women	20	Gen Z	04-12-2022	Dec	Delivere	Amazon	SET110-	Set	M	1	729	THANJA	TAMIL N	613007	IN
6	5	403-929	9E+06	Women	62	Boomers	04-12-2022	Dec	Delivere	Myntra	JNE2294	kurta	XXL	1	544	GURUGI	HARYAN	122001	IN
7	6	407-129	1E+06	Men	49	Millennials	04-12-2022	Dec	Delivere	Flipkart	JNE3797	Westerr	XXL	1	735	SANGLI	MAHAR,	416436	IN
8	7	407-129	1E+06	Women	23	Gen Z	04-12-2022	Dec	Delivere	Meesho	JNE3801	kurta	XXL	1	735	BENGAL	KARNAT	560029	IN
9	8	171-556	6E+06	Women	70	Boomers	04-12-2022	Dec	Delivere	Others	JNE3405	kurta	M	1	435	GURUGI	HARYAN	122001	IN
10	9	408-293	3E+06	Women	75	Boomers	04-12-2022	Dec	Delivere	Amazon	JNE3474	kurta	XL	1	385	BENGAL	KARNAT	562149	IN
11	10	404-264	3E+06	Women	43	Millennials	04-12-2022	Dec	Delivere	Myntra	JNE3466	kurta	L	1	771	VIJAYAV	ANDHR/	520002	IN
12	11	404-264	3E+06	Women	76	Boomers	04-12-2022	Dec	Delivere	Amazon	JNE3795	kurta	S	1	517	THIRUV,	KERALA	695018	IN
13	12	404-264	3E+06	Women	45	Millennials	04-12-2022	Dec	Delivere	Myntra	J0181-TI	Top	M	1	399	ARAKON	TAMIL N	631003	IN
14	13	408-026	265357	Women	18	Gen Z	04-12-2022	Dec	Delivere	Amazon	SET217-	Set	XL	1	786	GUWAH	ASSAM	781017	IN
15	14	403-926	9E+06	Men	44	Millennials	04-12-2022	Dec	Delivere	Myntra	SET185-	Set	M	1	911	BENGAL	KARNAT	562125	IN
16	15	407-044	442660	Women	52	Boomers	04-12-2022	Dec	Delivere	Amazon	SET333-	Set	M	1	967	HYDERA	TELANG	500098	IN

Data Analysis

- **Pivot Table for Monthly Sales vs. Orders:**

  Data: Sum of Amount and Count of OrderID against Month.

  Combo Chart:

  - **Primary Y-Axis:** Sum of Amount (formatted in millions).
  - **Secondary Y-Axis:** Count of OrderID.

- **Pie Chart for Sales by Gender:**

  Data: Sum of Amount split by Gender.

- **Pie Chart for Order Status:**

  Data: Count of OrderID split by Order Status.

- **Column Chart for Top 5 States by Sales:**

  Data: Sum of Amount by State.

  Sort: Sort Amount from highest to lowest.

  Filter: Top 5 states.

- **Bar Chart for Sales by Generations:**

  Data: Sum of Amount split by Generations (Millennials, Gen Z and Boomers).

- **Column Chart for Sales by Channels:**

  Data: Sum of Amount split by different sellers or channels (Amazon, Myntra, Flipkart etc).

- **Slicers for Filtering Data:**

  Slicers: Add slicers for Month, Category, and Channels to filter and view data accordingly.

Instructions to Implement in Excel:

1. **Pivot Table for Monthly Sales vs Orders:**
   - **Insert Pivot Table:**
     1. Select your data range.
     2. Insert > PivotTable.
     3. Drag 'Month' to Rows, 'Amount' to Values (set to Sum), and 'OrderID' to Values (set to Count).

   - **Create Combo Chart:**
     1. Select Pivot Table data.
     2. Insert > Combo Chart.
     3. Set Sum of Amount to Primary Y-Axis and Count of OrderID to Secondary Y-Axis.
     4. Format Sum of Amount to display in millions (0.0,,"M").

2. **Pie Chart for Sales by Gender:**
   - **Insert Pivot Table:**
     1. Drag 'Gender' to Rows and 'Amount' to Values.
   - **Insert Pie Chart:**
     1. Select Pivot Table data.
     2. Insert > Pie Chart.

3. **Pie Chart for Order Status:**
   - **Insert Pivot Table:**
     1. Drag 'Order Status' to Rows and 'OrderID' to Values (set to Count).
   - **Insert Pie Chart:**
     1. Select Pivot Table data.
     2. Insert > Pie Chart.

4. **Column Chart for Top 5 States by Sales:**
   - **Insert Pivot Table:**
     1. Drag 'State' to Rows and 'Amount' to Values.
     2. Sort Amount from highest to lowest.
     3. Filter to show the Top 5 states.
   - **Insert Column Chart:**
     1. Select Pivot Table data.
     2. Insert > Column Chart.

5. **Bar Chart for Sales by Generations:**
   - **Insert Pivot Table:**
     1. Drag 'Generation' to Rows and 'Amount' to Values.
   - **Insert Bar Chart:**
     1. Select Pivot Table data.
     2. Insert > Bar Chart.

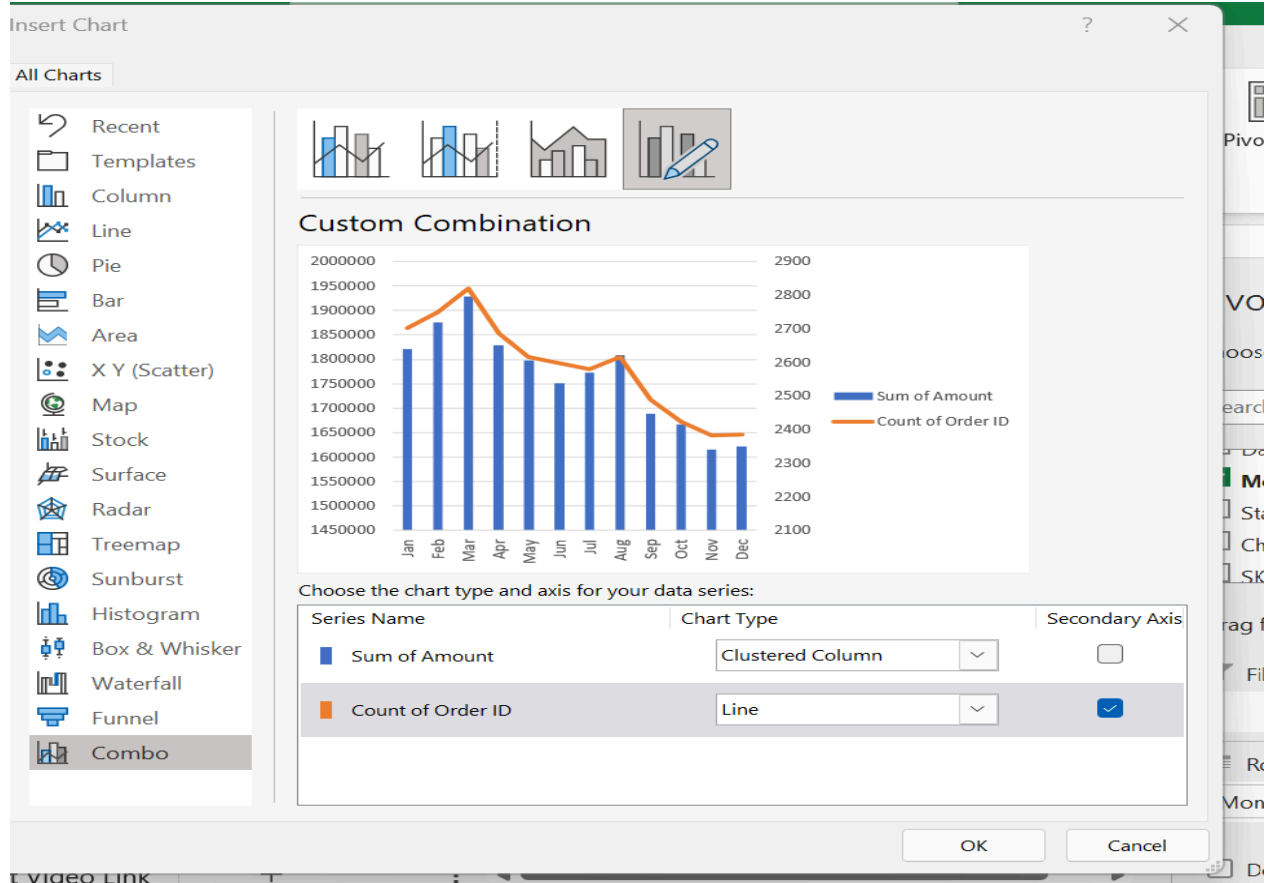6. **Column Chart for Sales by Channels:**
   - **Insert Pivot Table:**
     1. Drag 'Channel' to Rows and 'Amount' to Values.
   - **Insert Column Chart:**
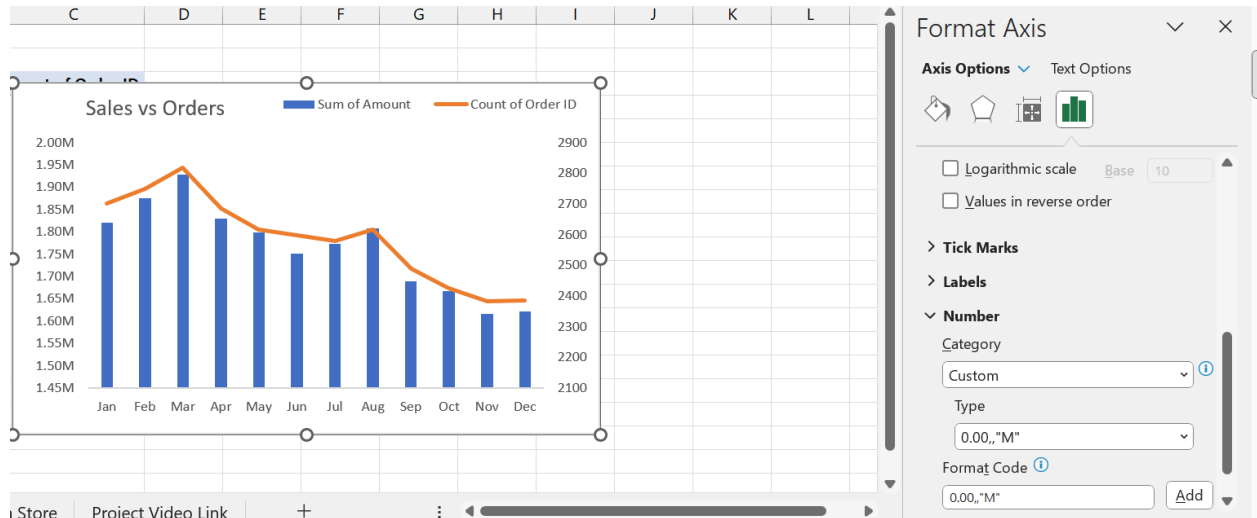   1. Select Pivot Table data.
     2. Insert > Column Chart.

7. **Add Slicers:**
   ○ **Insert Slicers:**
      1. Select Pivot Table.
      2. Insert > Slicer.
      3. Add slicers for 'Month', 'Category', and 'Channels'.

Screenshots:

Insights

- **Peak Sales Months:**

  Our highest sales volumes are observed in the months of March and August, which also correspond with the highest number of orders placed during these periods.

- **Customer Demographics:**

  Millennials, particularly those aged between 30 and 50 years, represent our highest paying customer segment.

- **Geographical Performance:**

  In the southern region of India, including Maharashtra, Maharashtra and Karnataka emerge as top consumers. Meanwhile, Uttar Pradesh leads in performance in the northern region.

- **Gender-based Spending:**

    Women demonstrate a significantly higher propensity to spend in the clothing industry, accounting for approximately 64% of sales, compared to Men who contribute around 36%.

- **Preferred Shopping Platforms:**

    Amazon, Myntra, and Flipkart are the top preferred online platforms for purchasing clothes among our customers.

These insights highlight key trends and patterns in our sales data, providing a clearer understanding of our customer base and their purchasing behaviors.

Recommendations

By implementing these recommendations, the business can effectively leverage the insights to drive higher sales, improve customer engagement, and enhance overall profitability.

Based on the insights provided, here are several targeted recommendations to enhance sales:

- **Leverage Peak Sales Months**

    Promotional Campaigns: Implement targeted marketing and promotional campaigns in the months leading up to March and August to maximize sales during these peak periods.

    Stock Management: Ensure adequate inventory levels to meet the increased demand in these months to avoid stockouts and capitalize on the sales surge.

- **Target Millennials Effectively**

    Tailored Marketing: Develop marketing strategies specifically aimed at Millennials (ages 30-50). Utilize platforms and channels that are popular with this age group, such as social media (Instagram, Facebook) and influencer partnerships.

    Product Selection: Curate and promote product lines that appeal to Millennial tastes and preferences, such as trendy, sustainable, and affordable clothing options.

- **Geographical Focus**

Regional Promotions: Design region-specific promotions and advertisements for Maharashtra, Karnataka, and Uttar Pradesh to reinforce and build on the existing strong customer base in these areas.

- **Engage Female Shoppers**

    Exclusive Collections: Introduce exclusive collections and fashion lines targeted at women, considering their higher spending propensity.

    Women-centric Campaigns: Run marketing campaigns highlighting women's clothing, accessories, and fashion trends. Collaborate with female influencers and fashion bloggers to reach a broader audience.

- **Optimize Online Sales Channels**

    Enhance Online Presence: Strengthen the presence on Amazon, Myntra, and Flipkart by ensuring top visibility, participating in special sales events, and optimizing product listings for better discoverability.

    Customer Reviews and Ratings: Encourage satisfied customers to leave positive reviews and high ratings on these platforms to build trust and attract more buyers.

    Exclusive Online Deals: Offer exclusive deals, discounts, and early access to sales on these preferred platforms to drive more traffic and conversions.