Mini Project

Business Analytics

MASTER OF COMPUTER APPLICATIONS

IN

BRANCH OF STUDY

UNIVERSITY INSTITUTE OF COMPUTING

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INTRODUCTION

- In today's competitive market, making decisions based on data isn't just an advantage it's essential for businesses. This project focuses on analyzing sales data for a retail store to reveal valuable insights about how different sales channels are performing. By looking at past sales data, we aim to uncover patterns that can help
  the store better allocate resources, identify growth opportunities, and improve profitability.
- This report also dives into monthly sales patterns to identify trends, such as peak sales seasons and slower periods. Understanding these patterns is essential for planning inventory, staffing, and marketing, so resources are focused where and when they're needed most. Monthly trends also support forecasting, helping the store to anticipate customer needs and prepare accordingly.
- To make these insights easy to interpret, we use data visualization tools throughout the project. Visual dashboards, charts, and graphs make it easier to spot differences between channels and identify areas for improvement.
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Excel Dashboard

Task to be done-

1. Setting up data in Excel and cleaning it.

2. Creating pivot tables for data analysis.

3. Designing charts (e.g., bar charts, pie charts).

4. Formatting and organizing the dashboard layout.

5. Adding interactive elements such as slicers and filters.

6. Customizing visuals for clear data presentation.

Software Used: MS-EXCEL

Data-

index	Orde	Cust	Gend	Age	Date	Statu	Chan	SKU	Categ	Size	Qty	curre	Amount	ship-	ship-	ship-	ship-	B2B	Age group	Month
1	171-102	1E+06	Women	44	04-12-2022	Delivere	Myntra	JNE123	kurta	XXL	1	INR	376	MOHAL	PUNJAB	140301	IN	FALSE	Adult	Dec
2	405-218	2E+06	Women	29	05-12-2022	Delivere	Ajio	SET414-	Set	L	1	INR	1449	GURUG	HARYAN	122002	IN	FALSE	Teenager	Dec
3	171-164	2E+06	Women	67	06-12-2022	Delivere	Myntra	SET261-	Set	S	1	INR	453	KOLKAT	WEST B	700029	IN	FALSE	Senior	Dec
4	404-749	7E+06	Women	20	07-12-2022	Delivere	Amazor	SET110-	Set	M	1	INR	729	THANJA	TAMIL N	613007	IN	FALSE	Teenager	Dec
5	403-929	9E+06	Women	62	08-12-2022	Delivere	Myntra	JNE229	kurta	XXL	1	INR	544	GURUG	HARYAN	122001	IN	FALSE	Senior	Dec
6	407-129	1E+06	Men	49	09-12-2022	Delivere	Flipkart	JNE379	Western	XXL	1	INR	735	SANGLI	MAHAR	416436	IN	FALSE	Adult	Dec
7	407-129	1E+06	Women	23	10-12-2022	Delivere	Meeshc	JNE380	kurta	XXL	1	INR	735	BENGAL	KARNA1	560029	IN	FALSE	Teenager	Dec
8	171-556	6E+06	Women	70	11-12-2022	Delivere	Others	JNE340	kurta	M	1	INR	435	GURUG	HARYAN	122001	IN	FALSE	Senior	Dec
9	408-293	3E+06	Women	75	12-12-2022	Delivere	Amazor	JNE347	kurta	XL	1	INR	385	BENGAL	KARNA1	562149	IN	FALSE	Senior	Dec
10	404-264	3E+06	Women	43	13-12-2022	Delivere	Myntra	JNE346	kurta	L	1	INR	771	VIJAYAV	ANDHR	520002	IN	FALSE	Adult	Dec
11	404-264	3E+06	Women	76	14-12-2022	Delivere	Amazor	JNE379	kurta	S	1	INR	517	THIRUV	KERALA	695018	IN	FALSE	Senior	Dec
12	404-264	3E+06	Women	45	15-12-2022	Delivere	Myntra	J0181-T	Top	M	1	INR	399	ARAKOI	TAMIL N	631003	IN	FALSE	Adult	Dec
13	408-026	265357	Women	18	16-12-2022	Delivere	Amazor	SET217-	Set	XL	1	INR	786	GUWAH	ASSAM	781017	IN	FALSE	Teenager	Dec
14	403-926	9E+06	Men	44	17-12-2022	Delivere	Myntra	SET185-	Set	M	1	INR	911	BENGAL	KARNA1	562125	IN	FALSE	Adult	Dec
15	407-044	442660	Women	52	18-12-2022	Delivere	Amazor	SET333-	Set	M	1	INR	967	HYDERA	TELANG	500098	IN	FALSE	Senior	Dec
16	406-748	7E+06	Women	18	19-12-2022	Delivere	Nalli	J0124-T	Top	L	1	INR	523	NEW DE	DELHI	110062	IN	FALSE	Teenager	Dec
17	407-703	7E+06	Men	30	20-12-2022	Delivere	Meeshc	SET304-	Set	XL	1	INR	1115	Bhuban	ODISHA	751022	IN	FALSE	Adult	Dec
18	407-342	3E+06	Women	48	21-12-2022	Delivere	Others	SET184-	Set	XS	1	INR	563	SIROHI	RAJASTI	307001	IN	FALSE	Adult	Dec
19	171-897	9E+06	Men	24	22-12-2022	Delivere	Myntra	J0161-D	Western	XXL	1	INR	473	MUMB/	MAHAR	400097	IN	FALSE	Teenager	Dec
20	406-024	244536	Women	46	23-12-2022	Delivere	Amazor	SET233-	Set	M	1	INR	545	AMRITS	PUNJAB	143001	IN	FALSE	Adult	Dec
21	404-437	4E+06	Women	43	24-12-2022	Delivere	Nalli	J0231-S	Set	3XL	1	INR	1164	LUCKNC	UTTAR	226024	IN	FALSE	Adult	Dec
22	408-194	2E+06	Men	31	25-12-2022	Refund	Myntra	J0339-D	Western	XXL	1	INR	743	NEW DE	DELHI	110087	IN	FALSE	Adult	Dec
23	403-095	950590	Men	30	26-12-2022	Delivere	Myntra	SET210-	Set	3XL	1	INR	575	MADUR	TAMIL N	625014	IN	FALSE	Adult	Dec
24	406-393	4E+06	Women	19	27-12-2022	Delivere	Ajio	SET110-	Set	XS	1	INR	788	Meerut	UTTAR I	250002	IN	FALSE	Teenager	Dec
25	402-039	398999	Women	37	28-12-2022	Delivere	Amazor	SET273-	Set	M	1	INR	612	HYDERA	TELANG	500060	IN	FALSE	Adult	Dec
26	403-543	5E+06	Women	37	29-12-2022	Delivere	Others	MEN50	kurta	XXL	1	INR	533	INDORE	MADHY	452014	IN	FALSE	Adult	Dec
27	406-834	8E+06	Women	62	30-12-2022	Delivere	Flipkart	JNE369	Top	XL	1	INR	484	DAVAN	KARNA1	577004	IN	FALSE	Senior	Dec

order and sales | store data set | Report | men women | Order status | sales top 6

Program Logic :

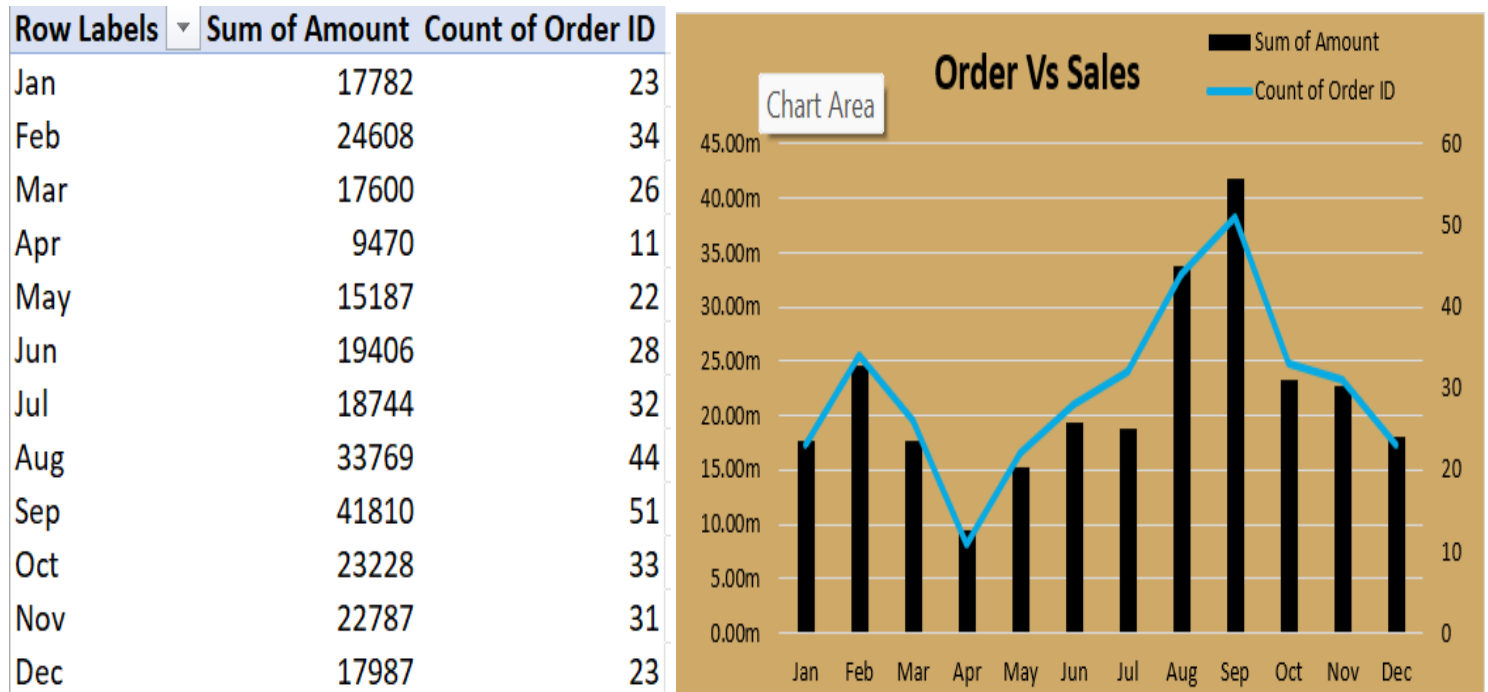**Step1: Input Data Setup:**

a. Import raw data into an Excel spreadsheet (e.g., sales, profits, region-wise data).
b. Clean the data by removing duplicates, correcting data types, and ensuring consistency for further analysis.
c. Organize columns and rows logically (e.g., product names, sales numbers, dates).

Step 2: Pivot Table Creation:

a. Create pivot tables by summarizing key metrics such as total sales, profits, product performance, or regional breakdown.
b. Use appropriate fields for rows and columns to show the desired summaries.

1. Overall Orders vs. Sales Analysis :

The bar and line chart indicates the relationship between the number of orders and total sales value. The trend suggests fluctuations in sales throughout the months, with a noticeable peak in December, indicating a significant increase in sales, possibly due to holiday shopping

Row Labels	Sum of Amount	Count of Order ID
Jan	17782	23
Feb	24608	34
Mar	17600	26
Apr	9470	11
May	15187	22
Jun	19406	28
Jul	18744	32
Aug	33769	44
Sep	41810	51
Oct	23228	33
Nov	22787	31
Dec	17987	23

2. Order Status :

- The pie chart for "Order Status" shows the distribution across different categories:
    - **Delivered**: 92% of the orders, indicating efficient fulfillment.

    - **Cancelled, Refunded, and Returned Orders**: Together make up the remaining 8%, with cancelled orders being the most significant among them. The low percentage of cancellations and returns reflects good customer satisfaction and product quality

    .

Row Labels ▾	Count of Order ID
Cancelled	844
Delivered	28641
Refunded	517
Returned	1045

Order Status

Delivered
92%

Refunded
2%

Returned
3%

Cancelled
3%
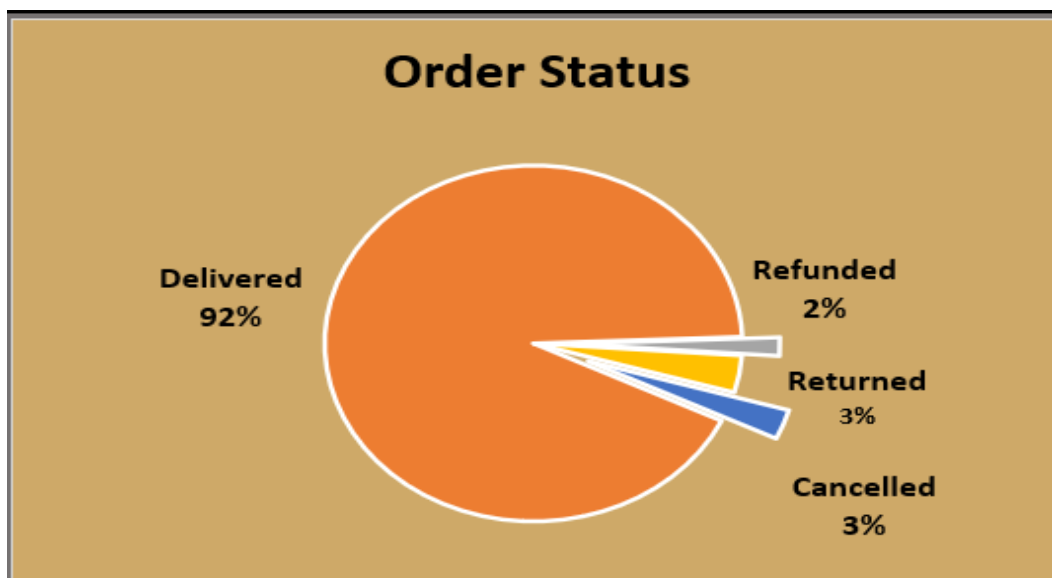
3. Sales Distribution by Gender :

- The pie chart labeled "Sales: Men Vs Women" shows a clear majority of sales coming from women, accounting for 64%, while men contribute 36%. This suggests that the majority of the products are targeted towards or more popular with female customers.

Row Labels ▼	Sum of Amount
Men	7613604
Women	13562773

Sales:Men VS Women
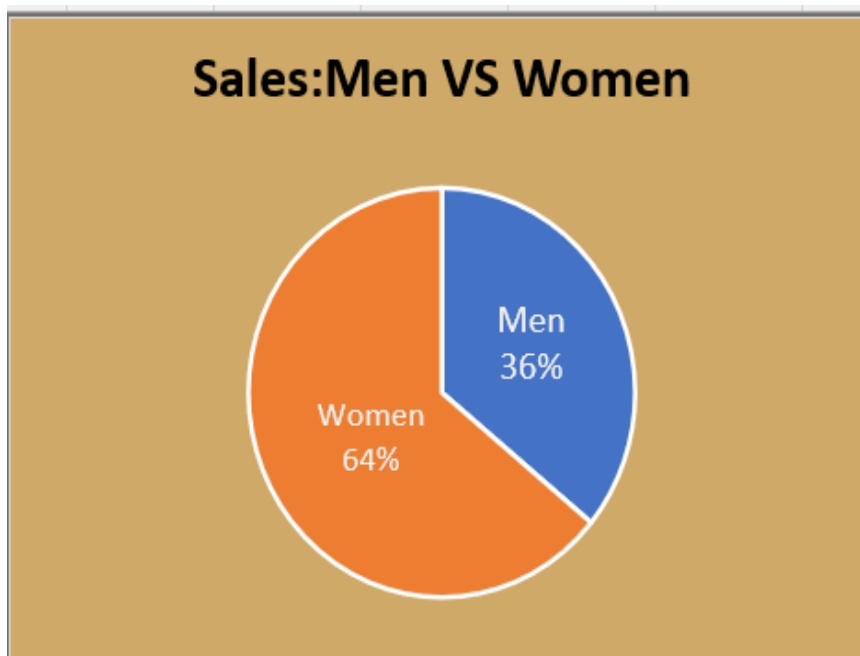
4. **Channel-wise Order Distribution :**

- The pie chart labeled "Order: Channel" provides an overview of the sales distribution across different e-commerce platforms:
  Amazon leads with 35% of the sales, followed by **Flipkart** (22%) and **Myntra (23%)**
  These three platforms dominate the sales channels.
  Other platforms like **Ajio, Meesho , and Nalli** have relatively smaller shares, which may represent areas for potential growth

Row Labels	Count of Order ID
Ajio	6.22%
Amazon	35.45%
AMenazon	0.03%
Flipkart	21.59%
Meesho	4.50%
Meneesho	0.00%
Menyntra	0.06%
Myntra	23.31%
Nalli	4.78%
Others	4.06%

Order Channels
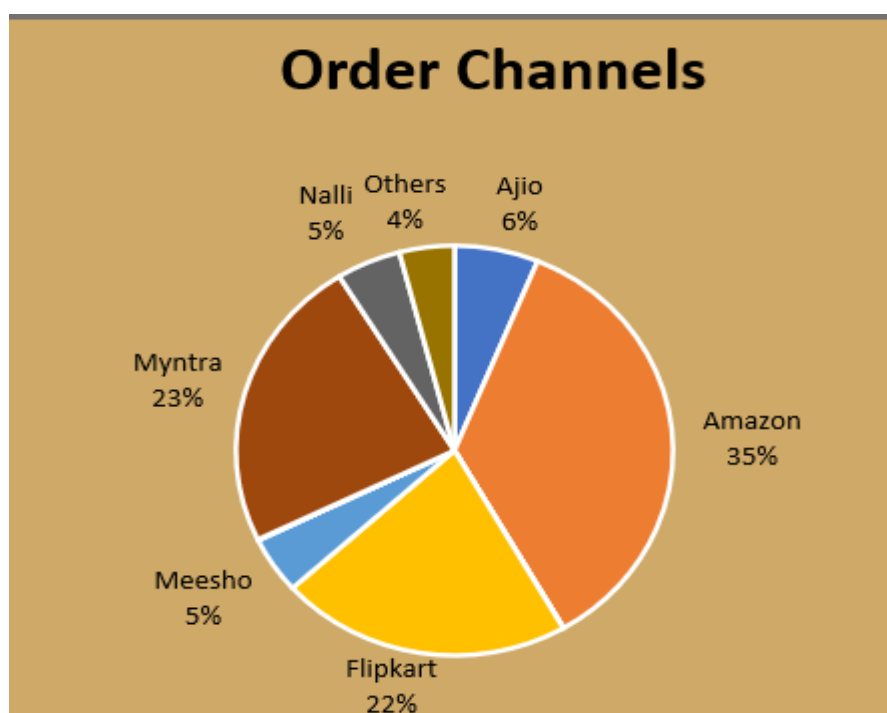
## 5. Order Analysis by Age and Gender :

The bar chart "Order: Age vs. Gender" provides insights into the customer demographics:

Adults are the predominant age group, with a higher percentage of women (34.59%) compared to men (15.47%).

Teenagers and Seniors also contribute, but to a lesser extent. Teenagers (30.33%) are the second-largest group, indicating potential growth opportunities**Dashboard:**

Count of Order ID	Column Labels ▼	
Row Labels ▼	Men	Women
Adult	15.47%	34.59%
Senior	5.91%	13.70%
Teenager	9.20%	21.13%

Orders: Men Vs Women
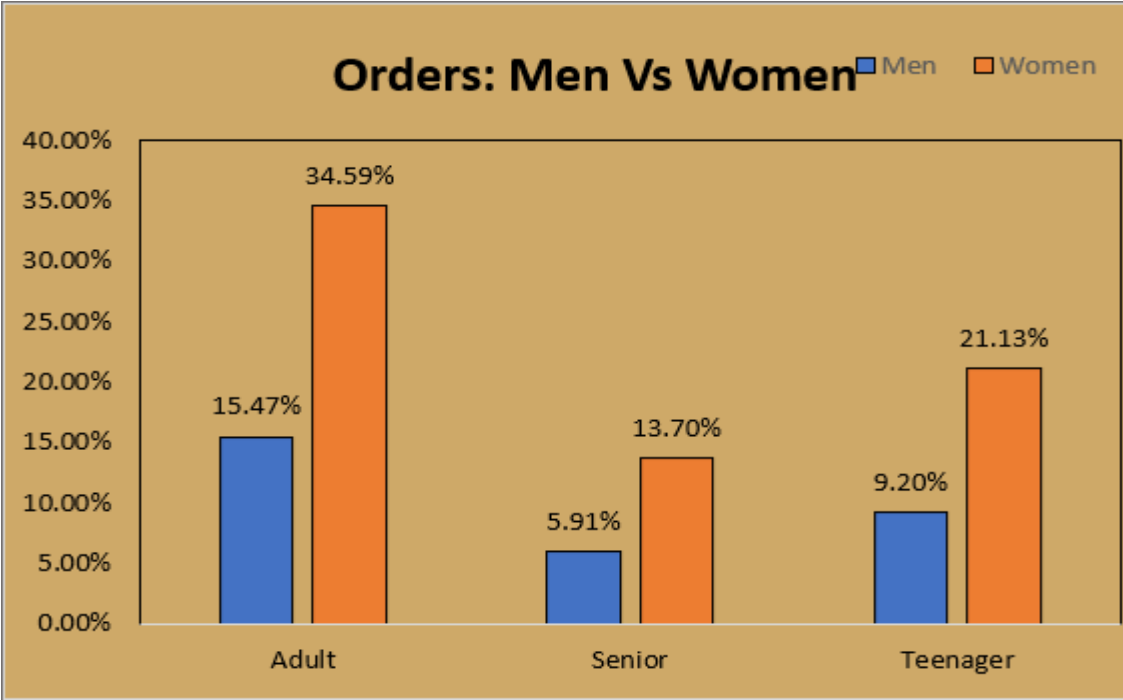
Recommendations:

- **Marketing Focus**: Increase marketing efforts towards female customers, as they make up the majority of the sales.
- **Expand in Top Performing States**: States like Maharashtra and Karnataka show high sales numbers. Expanding product variety and targeted promotions in these regions could drive further growth.
- **Optimize for the Adult Age Group**: Given the high sales concentration among adults, tailor promotions and product designs to this demographic.
- **Enhance Platform Strategy**: While Myntra is the top channel, improving the presence and promotional activities on Amazon and Ajio could help diversify sales distribution.
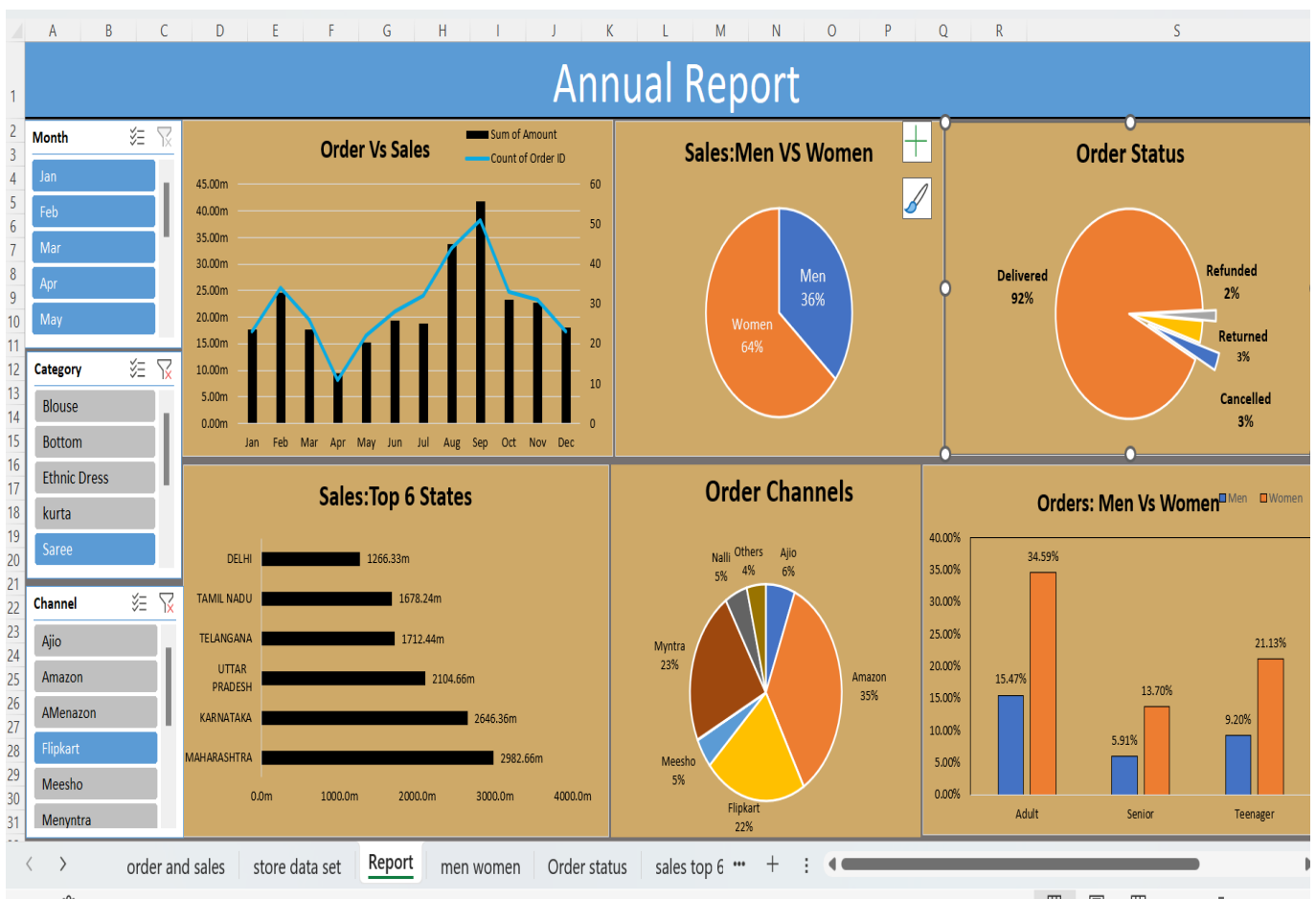
LEARNING OUTCOMES:

1. **Customer Demographics Insight**: The data reveals that the majority of sales are from women (64%) and adults, indicating the need to focus on products catering to these groups.
2. **Regional Sales Trends**: Maharashtra and Karnataka are top-performing states, suggesting that regional strategies can be tailored to leverage these markets for higher growth.
3. **Platform Performance Analysis**: Myntra, Flipkart, and amazon account for the majority of sales, highlighting the importance of optimizing sales strategies on these platforms.
4. **Order Fulfillment Efficiency**: With 92% of orders being delivered successfully, the business demonstrates strong logistics performance, but there is still room for improvement in reducing cancellations and returns.
5. **Visualizing Data**: Learning to present the pivot table output through charts and graphs for effective decision-making and reporting.