Store Sales Data Analysis

Introduction

- In today's dynamic business landscape, data-driven decision-making is paramount to success. This presentation delves into a comprehensive sales analysis project aimed at uncovering valuable insights from a company's sales data. Whether you're a seasoned data analyst or someone new to the world of data, this presentation will shed light on critical aspects of sales performance. We'll explore trends, identify top-performing products, and reveal patterns that can guide strategic decisions. This analysis has the potential to reshape sales strategies, enhance revenue growth, and ensure we stay competitive in a rapidly evolving market.

Data Source

- We took our data from kaggle (https://docs.google.com/spreadsheets/d/1N_Aa45UnkPmnwGqNr6oTzvUhb5TKlitM/edit#gid=1081836936) . The data is a mock data meant for studying and practicing data analysis. The data is in an excel sheet, where it has columns like order ID, customer ID, gender, age,date, order status, channel, shipping state,etc.

Objectives- answering some business questions

What are the month –wise sales and orders? Which month has the highest sales and what was the total amount and number of orders that month?

What are top states where sales are maximum?

What is the demography of our customers? To what age group do they belong? Which age group and which gender buys more?

What are the top channels or the most succesfull distribution channels for our business?

Data Cleaning

Channe	SKU	Category	Size	Qty	currenc	Amoun	ship-cit	ship-sta	ship-po	ship-co	B2B
Myntra	JNE1233-I	kurta	XXL	1	INR	376	MOHAI	PUNJAB	140301	IN	FALSE
Ajio	SET414-KI	Set	L	1	INR	1449	GURUG	HARYA	122002	IN	FALSE
Myntra	SET261-KI	Set	S	1	INR	453	KOLKA	WEST B	700029	IN	FALSE
Amazo	SET110-KI	Set	M	1	INR	729	THANJA	TAMIL	613007	IN	FALSE
Myntra	JNE2294-I	kurta	XXL	1	INR	544	GURUG	HARYA	122001	IN	FALSE
Flipkart	JNE3797-I	Western Dres	XXL	One	INR	735	SANGLI	MAHAR	416436	IN	FALSE
Meesh	JNE3801-I	kurta	XXL	One	INR	735	BENGA	KARNA	560029	IN	FALSE
Others	JNE3405-I	kurta	M	One	INR	435	GURUG	HARYA	122001	IN	FALSE
Amazo	JNE3474-I	kurta	XL	One	INR	385	BENGA	KARNA	562149	IN	FALSE
Myntra	JNE3466-I	kurta	L	One	INR	771	VIJAYA	ANDHR	520002	IN	FALSE
Amazo	JNE3795-I	kurta	S	One	INR	517	THIRUV	KERALA	695018	IN	FALSE
Myntra	J0181-TP-	Top	M	1	INR	399	ARAKO	TAMIL	631003	IN	FALSE
Amazo	SET217-KI	Set	XL	1	INR	786	GUWA	ASSAM	781017	IN	FALSE
Myntra	SET185-KI	Set	M	1	INR	911	BENGA	KARNA	562125	IN	FALSE

As we can see in the above image, in the column 'Qty' , we have data entered as 1 and 'One' also. This is wrong and can be harmful for obtaining clear data reports. Hence we make all data in numeric format.

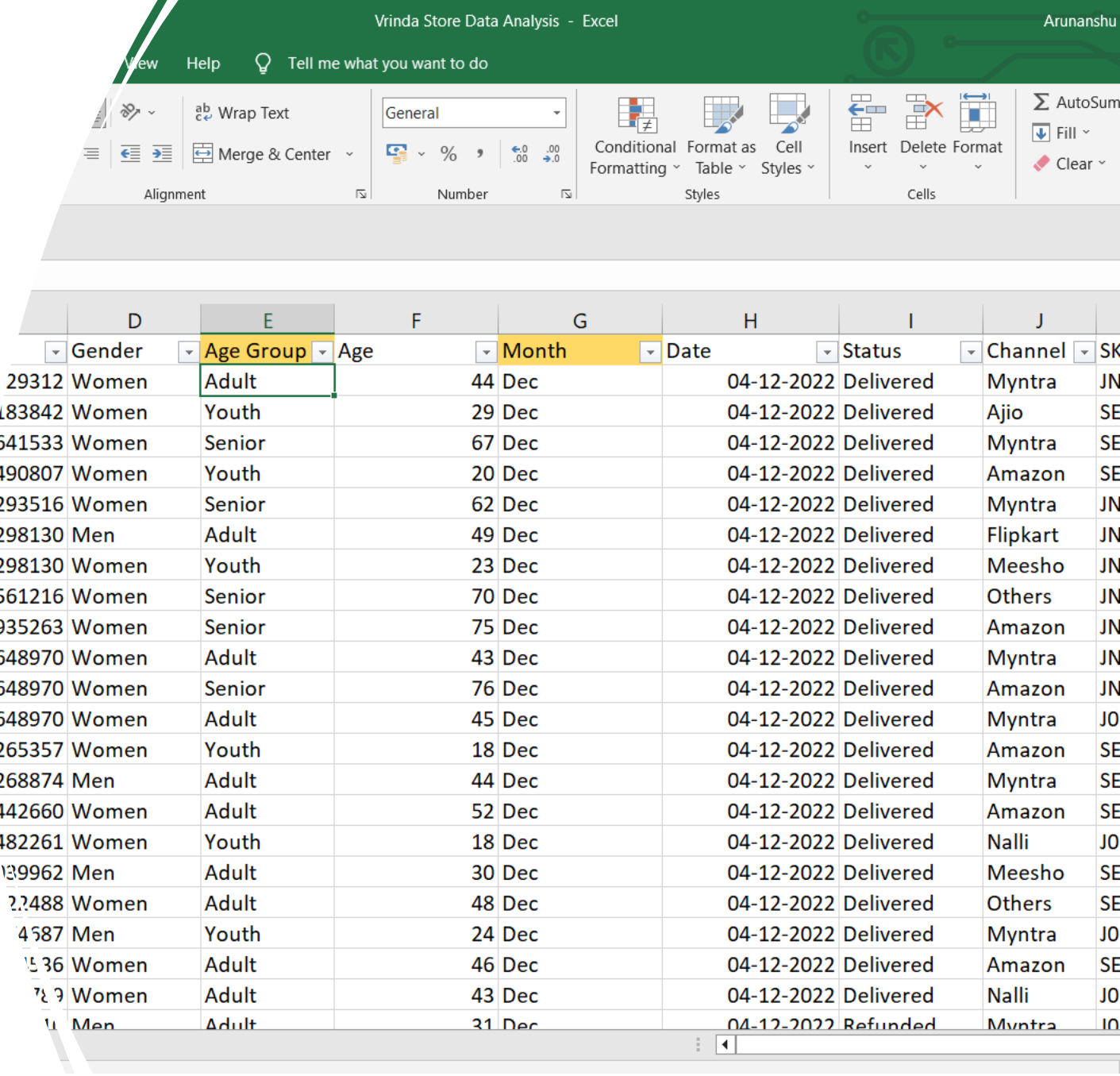
We don’t require the columns 'B2B' and 'Ship country' for this analysis. Hence, we remove them for this project.

Steps taken for this Project :

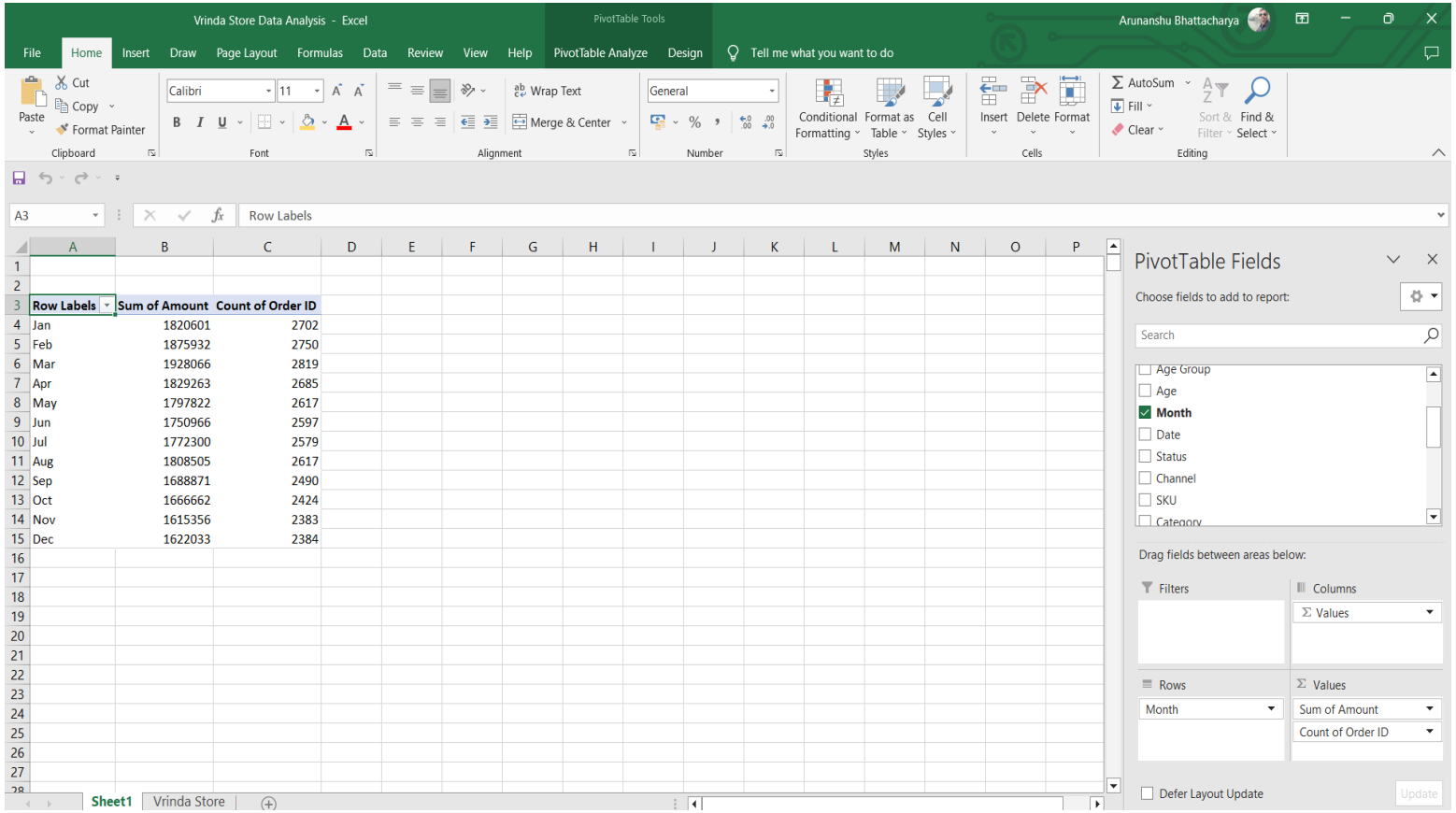
- We will create several interactive charts for each business problem using Pivot Tables and Pivot Charts. In the end, we will put all the interactive tables into one dashboard where we will put slicers to filter the data accordingly.

Answering our business needs

- Q1)What are the month –wise sales and orders? Which month had the highest sale?
- Here, we need to look at the sum and count of all sales in each particular month.
- To answer this, we will first select all the data that we have and go for Pivot tables.

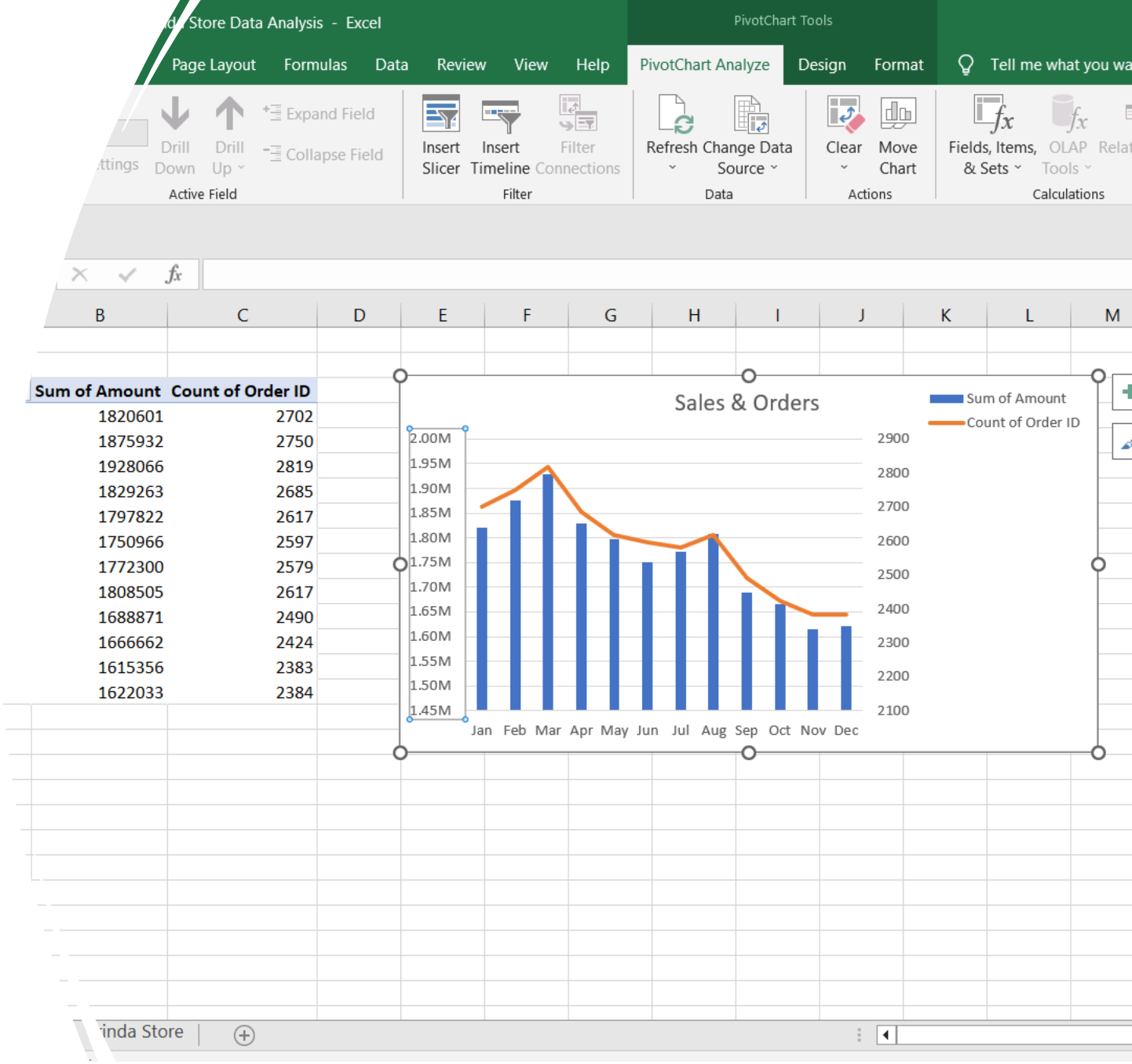


	D	E	F	G	H	I	J	
	Gender	Age Group	Age	Month	Date	Status	Channel	SK
29312	Women	Adult	44	Dec	04-12-2022	Delivered	Myntra	JN
183842	Women	Youth	29	Dec	04-12-2022	Delivered	Ajio	SE
641533	Women	Senior	67	Dec	04-12-2022	Delivered	Myntra	SE
7490807	Women	Youth	20	Dec	04-12-2022	Delivered	Amazon	SE
9293516	Women	Senior	62	Dec	04-12-2022	Delivered	Myntra	JN
1298130	Men	Adult	49	Dec	04-12-2022	Delivered	Flipkart	JN
1298130	Women	Youth	23	Dec	04-12-2022	Delivered	Meesho	JN
5561216	Women	Senior	70	Dec	04-12-2022	Delivered	Others	JN
2935263	Women	Senior	75	Dec	04-12-2022	Delivered	Amazon	JN
2648970	Women	Adult	43	Dec	04-12-2022	Delivered	Myntra	JN
2648970	Women	Senior	76	Dec	04-12-2022	Delivered	Amazon	JN
2648970	Women	Adult	45	Dec	04-12-2022	Delivered	Myntra	JO
265357	Women	Youth	18	Dec	04-12-2022	Delivered	Amazon	SE
9268874	Men	Adult	44	Dec	04-12-2022	Delivered	Myntra	SE
442660	Women	Adult	52	Dec	04-12-2022	Delivered	Amazon	SE
482261	Women	Youth	18	Dec	04-12-2022	Delivered	Nalli	JO
139962	Men	Adult	30	Dec	04-12-2022	Delivered	Meesho	SE
22488	Women	Adult	48	Dec	04-12-2022	Delivered	Others	SE
4587	Men	Youth	24	Dec	04-12-2022	Delivered	Myntra	JO
536	Women	Adult	46	Dec	04-12-2022	Delivered	Amazon	SE
79	Women	Adult	43	Dec	04-12-2022	Delivered	Nalli	JO
	Men	Adult	31	Dec	04-12-2022	Refunded	Myntra	JO



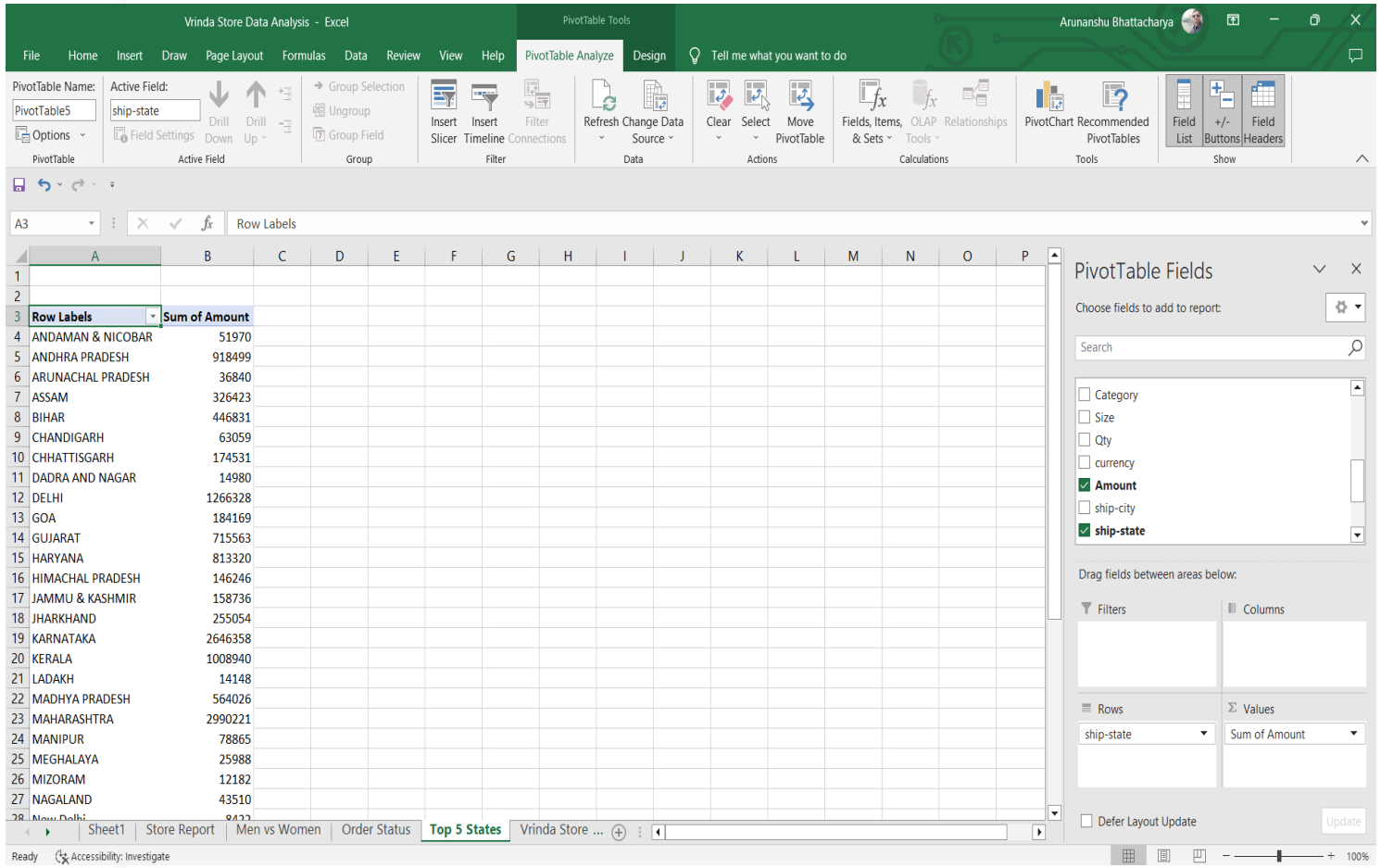
- After that, we select the relevant values for this chart. We put "Sum of Amount" and "Count of Order ID" in the values section. We also select the months filter from the dates which enable us to have a month wise presentation of our data.

- After selecting our data, we go and select a pivot chart which will be relevant to show this data. For this case, we select a bar and line chart, to represent our sum of sales and count of orders respectively.
- Hence , we can conclude that the highest sales occurred in the month of **March** with a sum around **1.92 million** INR. The number of orders were around **2800**.

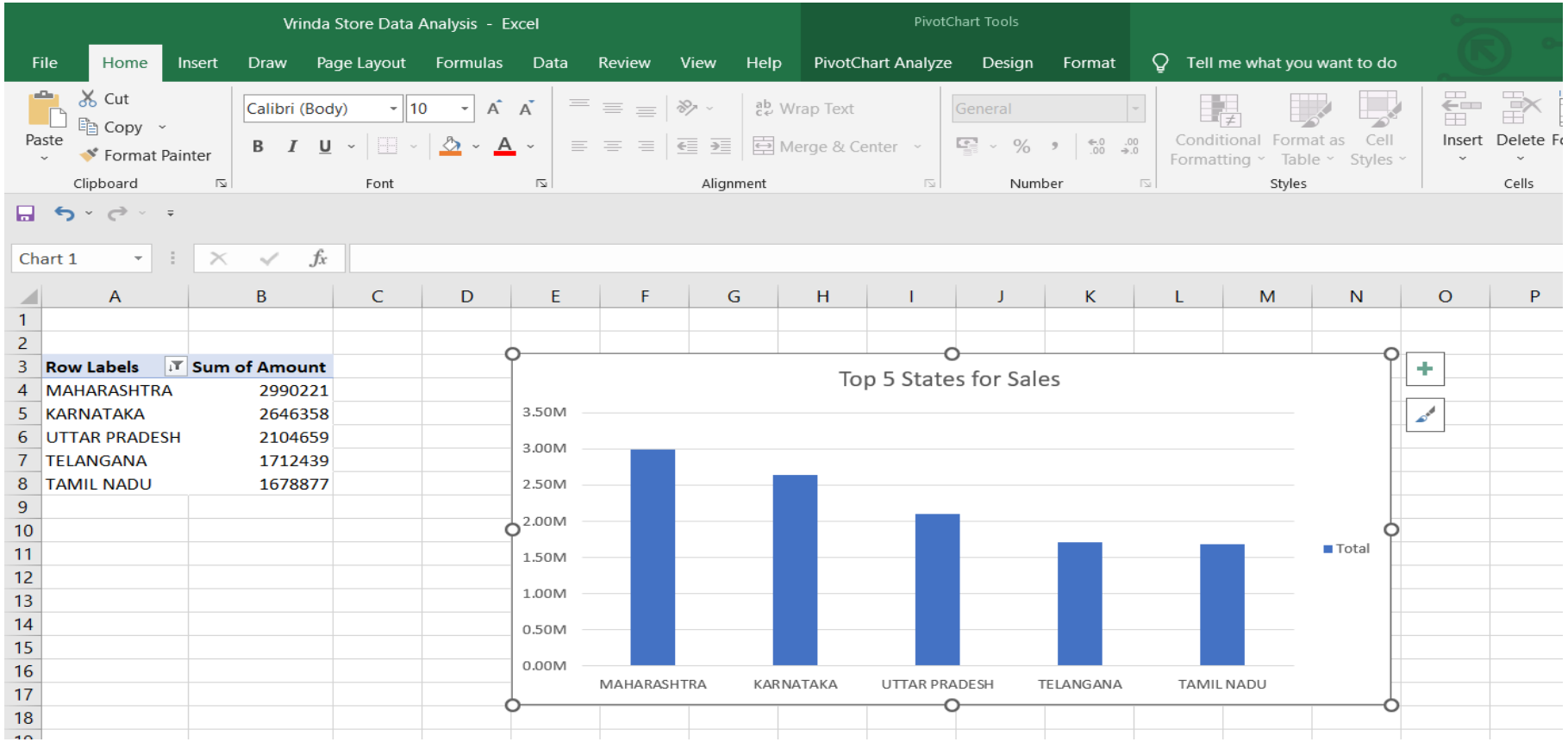


Q2)What are top states where sales are maximum?

- For answering this question, we once again select our entire data range and go to pivot tables.
- We select the "Amount" and "Ship State" options. We put ship state into rows and take the sum of amount for values.

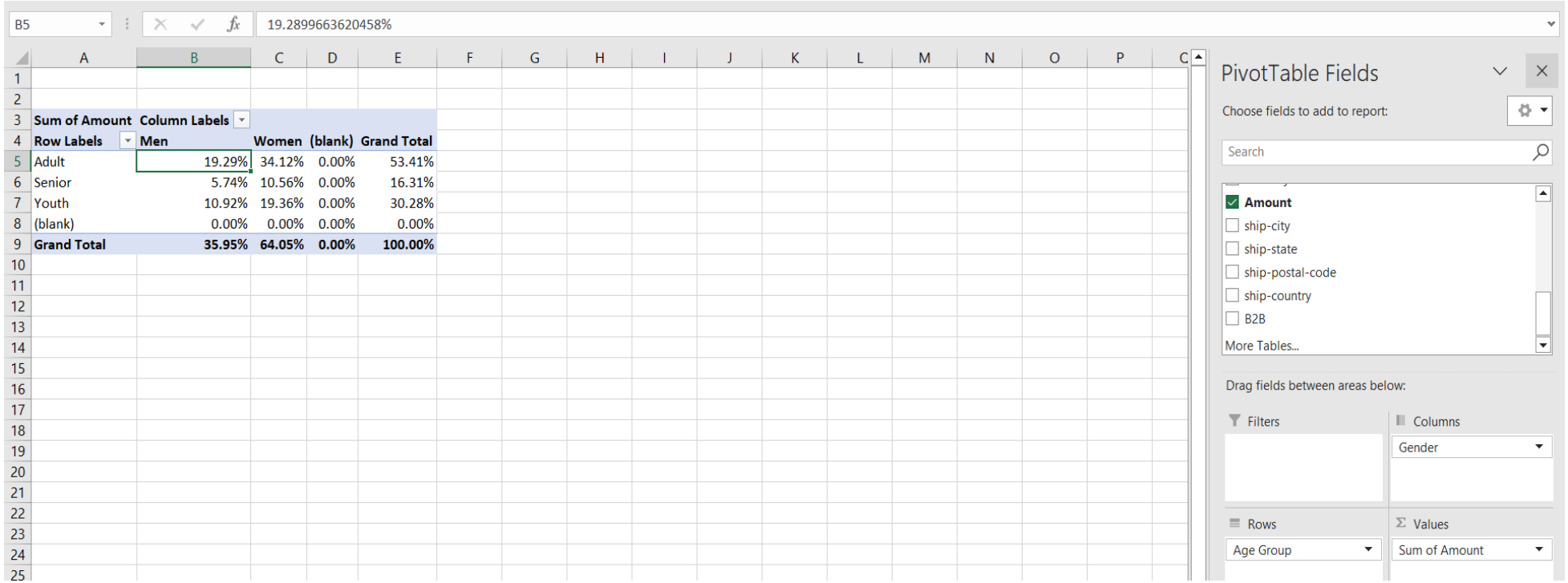


- However, we want only the top 5 states, for a better understanding. Hence we first arrange the states in a descending order of their sum of sales values and then select and filter to show only the top 5 rows.
- After that, we select the bar charts to show the obtained values visually.
- From the graph, we can conclude that **Maharashtra** is the state with the highest sum of sales, with sales of around 3 million INR.

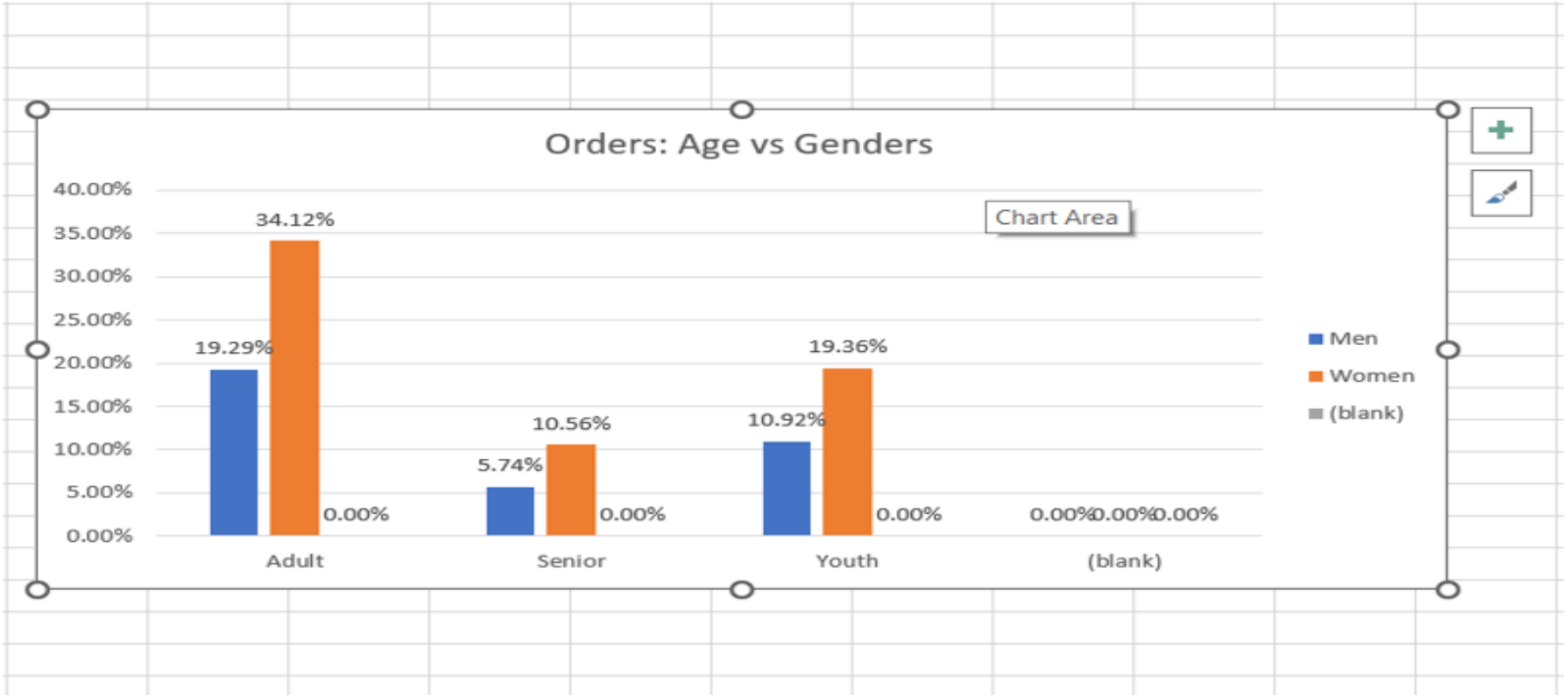


Q3)What is the demography of our customers? To what age group do they belong? Which age group and which gender buys more?

- For answering this question, we once again select our entire data range and go to pivot tables.
- We select the "Amount", "Gender" and "Age Group" options. We put age group into rows, gender in columns and take the sum of amount for values.

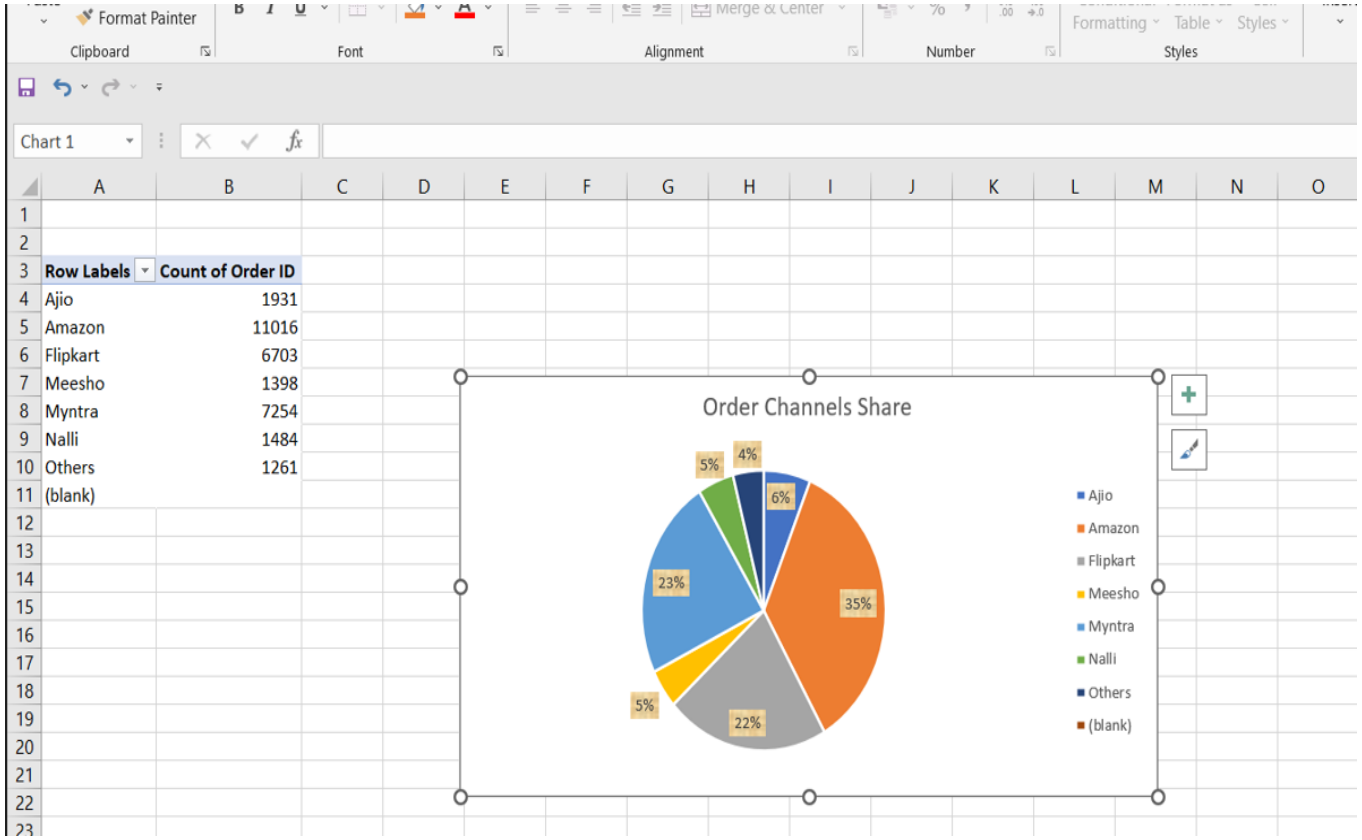


- And then, we go to pivot charts and select the bar graphs for this visualization.
- We can see that **Women customers are more than men** in all three categories, i.e., Adults, Seniors, youth. The highest percentage of customers come from **Adult women, who constitute around 34.12%** of the total customer pool.



Q4) What are the top channels or the most successful distribution channels for our business?

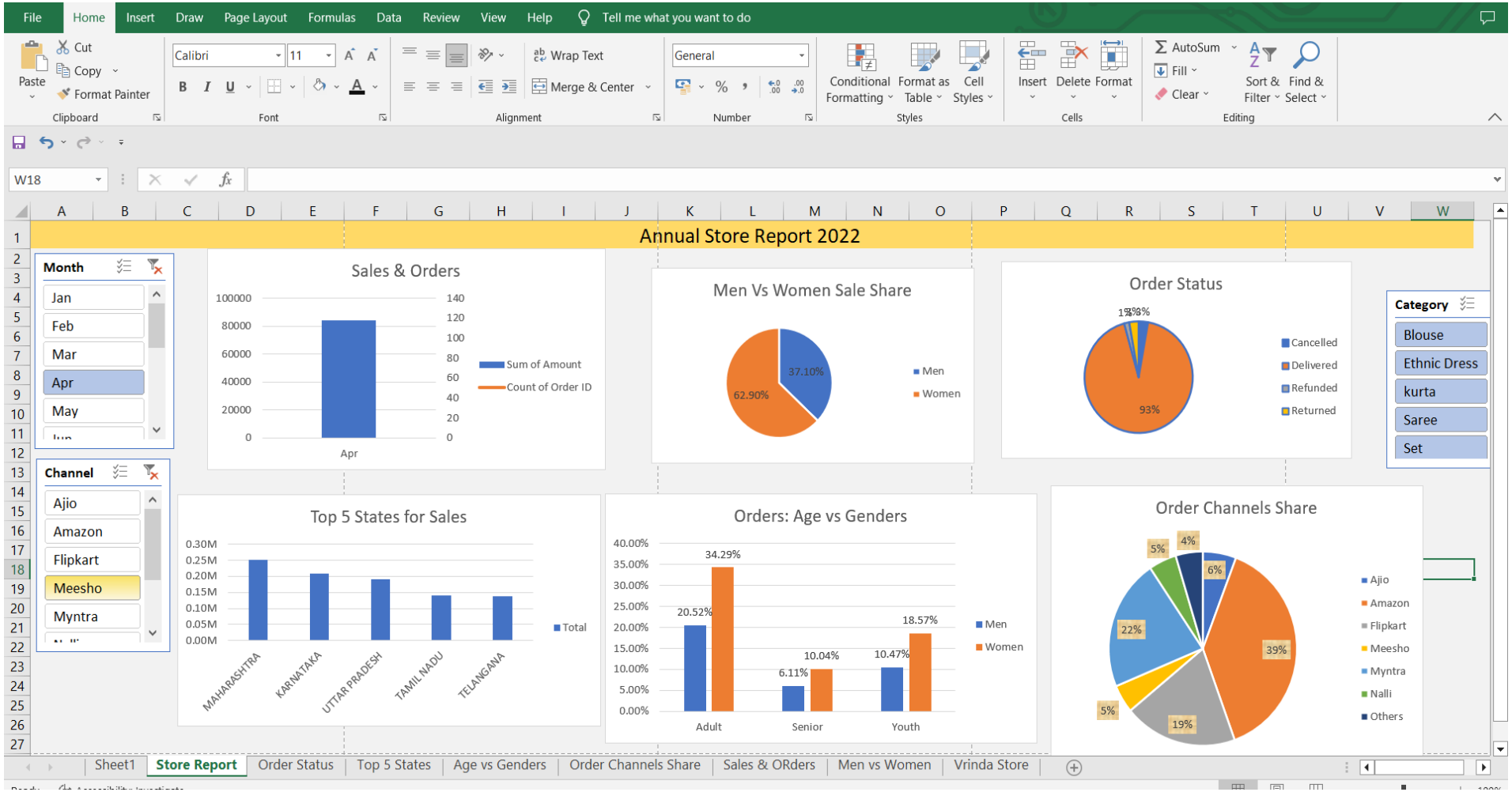
- For answering this question, we once again select our entire data range and go to pivot tables.
- We select the "Order ID" and "Channel" options. We put Channel into rows and take the count of order IDs for values.
- We then select a pie chart for the visualization . We can conclude from it that Amazon is the most successful channel, contributing about 35% single handedly.



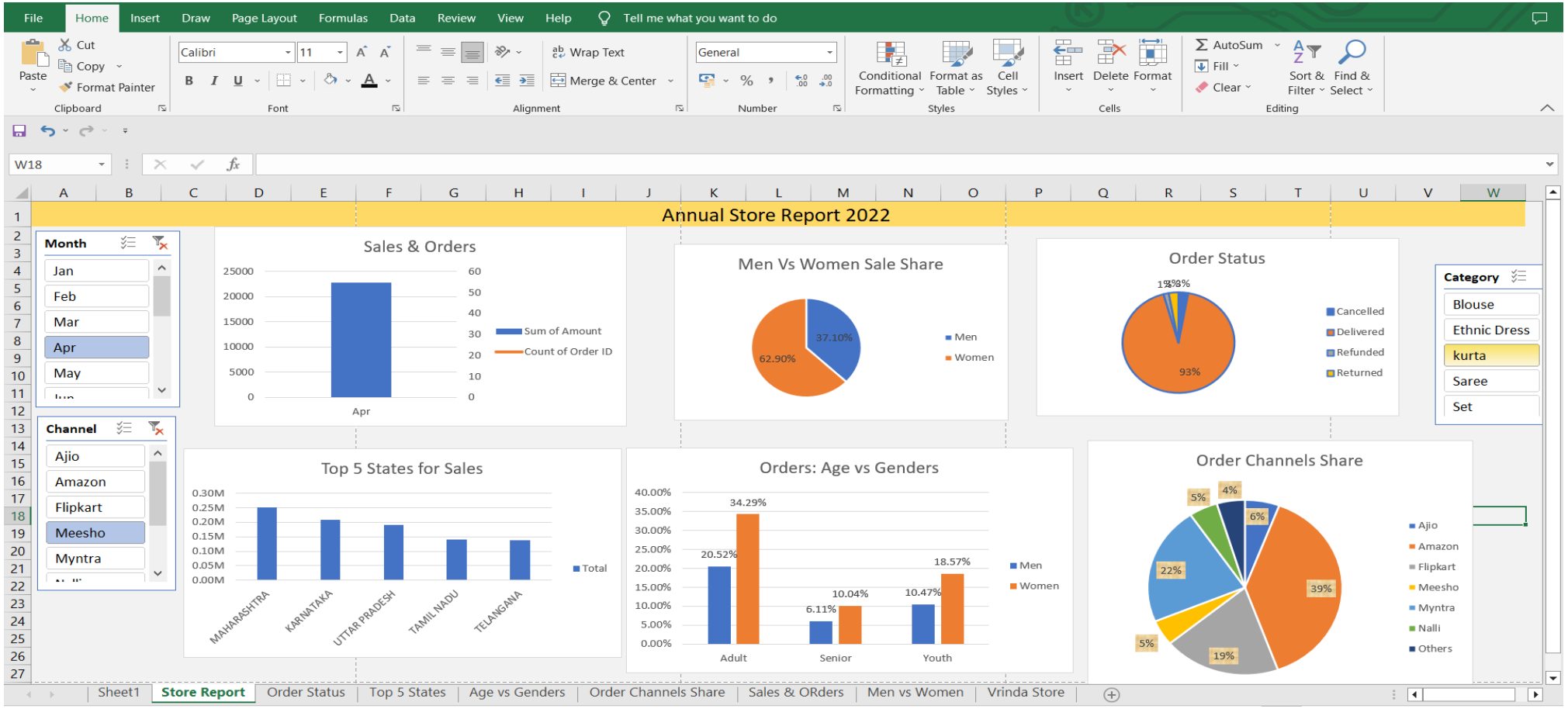
Dashboard

- Hence, we answered all our business queries using pivot tables and pivot charts in excel. Now, we will combine all those tables into one single "Dashboard" where we can access them all at once. We will use 'slicers' who are like filters to view information filtered for a certain criteria only.

This is the complete dashboard, without any slicer filter on:



- This when we apply the filters for channel "Meesho" and month "April". Notice how we see all charts changing their data to show only matching data.



Summary

- Hence, we saw how using solely Excel, we cleaned data, performed Exploratory Data analysis, and even created interactive charts and dashboards using pivot charts and pivot tables.
- We were able to arrive at the answers to our business problems using the same.
- Tools and abilities like these help us and businesses to arrive at better decision making because it is backed by solid data and analysis and not mere assumption.