Electronic Store Sales Analysis

2023 | By: Ahmed Monged

Sales Analysis Report

Introduction

Sales analysis is the practice of analyzing and visualizing sales data to draw information from it to help you evaluate the performance of your services or products and build decisions driven by data, sales analysis provides valuable insights about the top-performing and underperforming products/services, selling and market opportunities, and includes sales forecasting.

In this report, I am discussing and mentioning the results of sales analysis that belongs to electronic stores, the data have been analyzed to answer business questions and report the performance of sales, in addition to offering recommendations and suggestions.

The data contains hundreds of thousands of electronics store purchases broken down by month, product type, cost, purchase address, etc. it covers a period of 12 months in the 2019 year

I will try to answer the following questions related to sales based on the available data to help stakeholders or sales team to improve the performance of the process and sales in general.
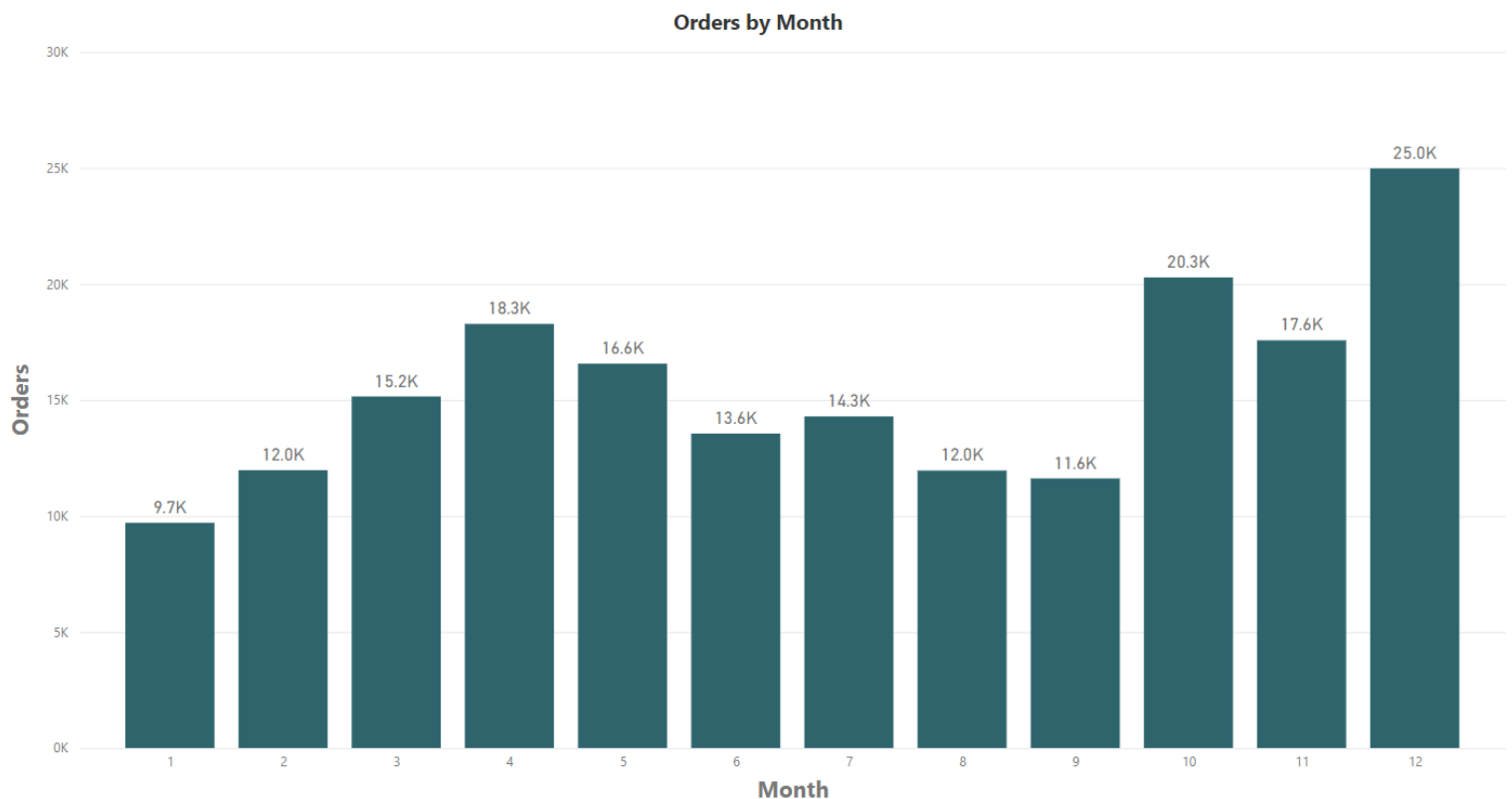
Questions

1. What is the best month for sales? How much was earned that month?
2. What state had the highest number of sales?
3. What City had the highest number of sales?
4. What product is sold the most? Why do you think it is sold the most?
5. What type of products make up the most revenue?
6. What products are most often sold together?
7. What time should we display advertisements to maximize the likelihood of purchases?
8. What is the best day of the month for sales?
9. what is the best day of the week for sales?

1. What is the best month for sales? How much was earned that month?

Based on sales data November has the highest sales in the year with 4.61 million dollars and that may be because of the occurrence of some events like Christmas or the end of the year.
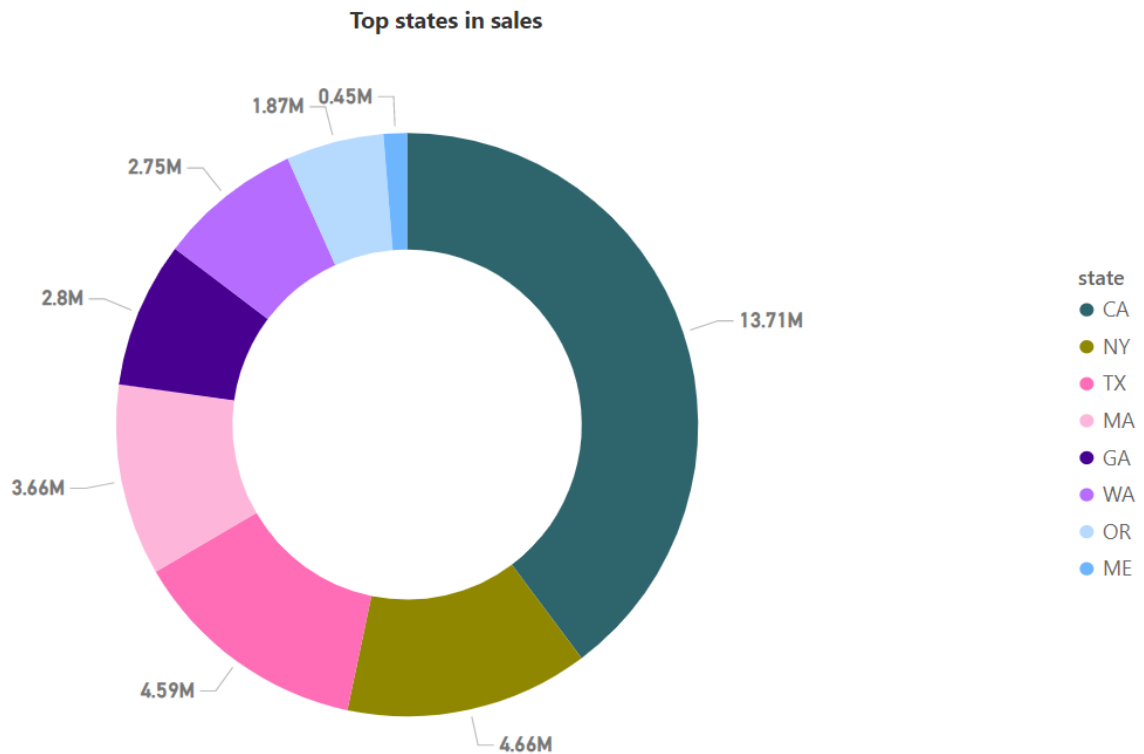
A noticeable increase in sales occurred in two periods in the year the first period from March to May (Spring) with 9.35 million dollars and the second from October to December (2 months in fall and 1st month in winter) with 11.5 million dollars.

A noticeable decrease in sales occurred at the opening of the new year (January) with 1.8 million dollars, August with 2.24 million dollars, and September with 2.09 million dollars.
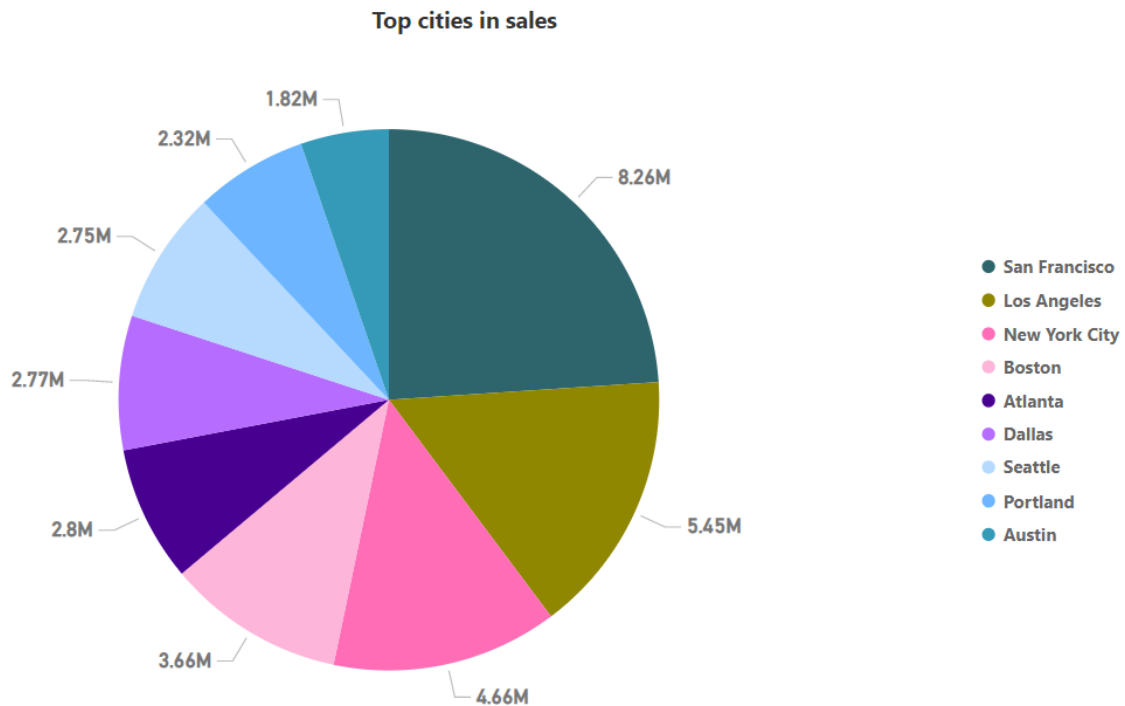
Orders by Month

2. What state got the highest number of sales?

California comes in the first place as the highest state in sales with 13.7 million dollars which represents nearly 40% of our total sales number in all states, then comes New York in second place with 4.66 million dollars (13.5%) then Texas with 4.58 million dollars (13.3%).

Top states in sales

state
- CA
- NY
- TX
- MA
- GA
- WA
- OR
- ME

3. What City had the highest number of sales?

San Francisco got the highest number of orders and hence has the highest number of sales with 8.2 million dollars then comes Los Angeles and New York City with 5.4 million dollars and 4.6 million dollars respectively

Top cities in sales

- ● San Francisco
- ● Los Angeles
- ● New York City
- ● Boston
- ● Atlanta
- ● Dallas
- ● Seattle
- ● Portland
- ● Austin

4. What product is sold the most? Why do you think it is sold the most?

Charging Cables are the most items sold in our data here, the reason is that Charging Cables are one of the electronic products that are damaged easily as there are too many people had to buy several charging cables over the years due to breakage, and same seems to be true for Batteries but because they empty their charge.

You can notice that we have some types of products that are more sold and requested than other types and if we rank them based on our data they will be as follows:

1- Charging Cables
2- Batteries
3- Headphones
4- Monitors
5- iPhones

Top Products Sold

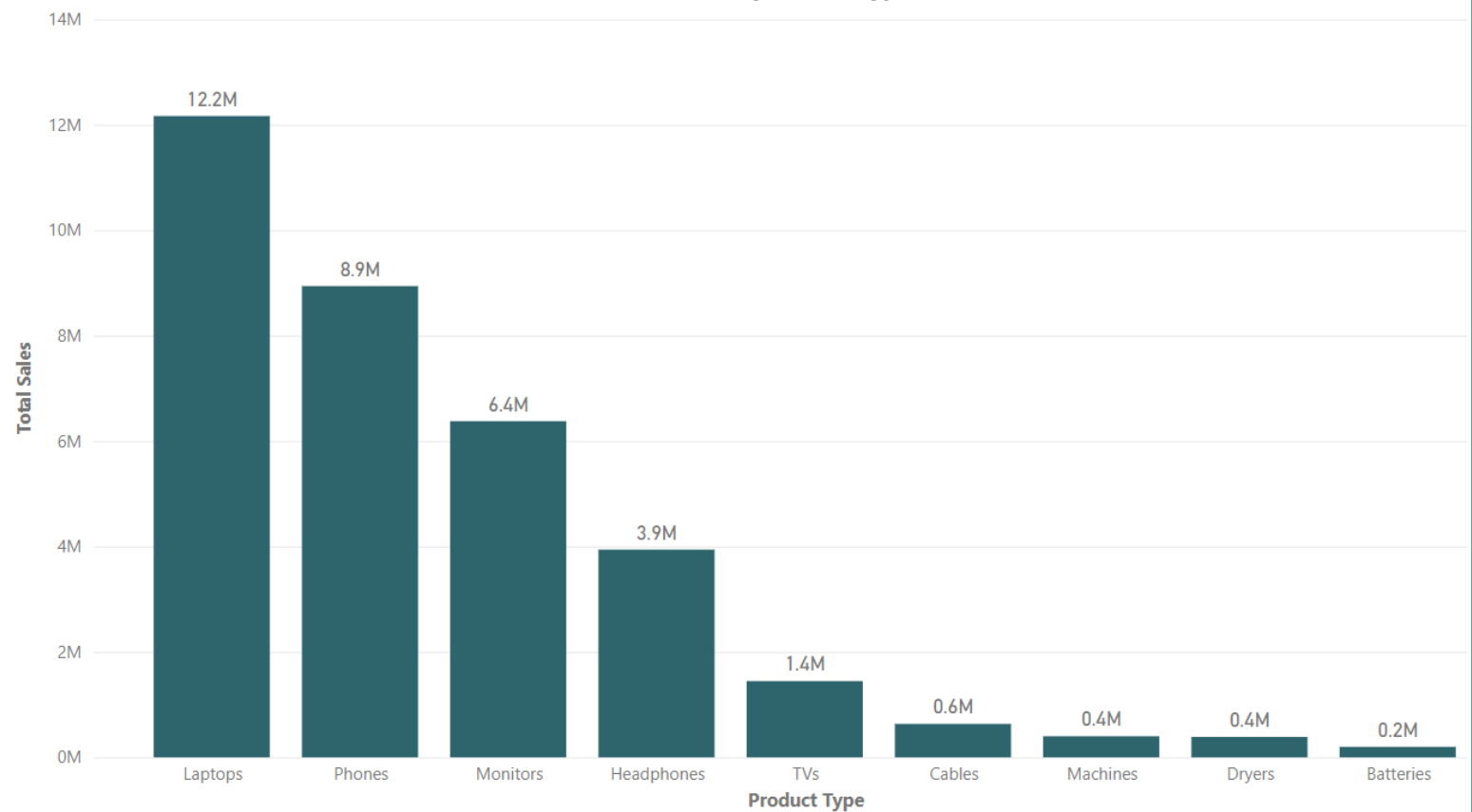| Product	Orders
USB-C Charging Cable	21903
Lightning Charging Cable	21658
AAA Batteries (4-pack)	20641
AA Batteries (4-pack)	20577
Wired Headphones	18882
Apple Airpods Headphones	15549
Bose SoundSport Headphones	13325
27in FHD Monitor	7507
iPhone	6842
27in 4K Gaming Monitor	6230
34in Ultrawide Monitor	6181
Google Phone	5525
Flatscreen TV	4800
Macbook Pro Laptop	4724
ThinkPad Laptop	4128
20in Monitor	4101
Vareebadd Phone	2065
LG Washing Machine	666
LG Dryer	646

5. What type of products make up the most revenue?

Although Cables and Batteries have the highest number of product orders it does not mean that they also have the highest revenue

As our data and the following graph show laptops come in the first place as the highest product type that brings up sales (revenue) with 12.2 million dollars,

then come Phones as the second highest product type in revenue with 8.9 million dollars and monitors in third with 6.4 million dollars.

Total Sales by Product Type

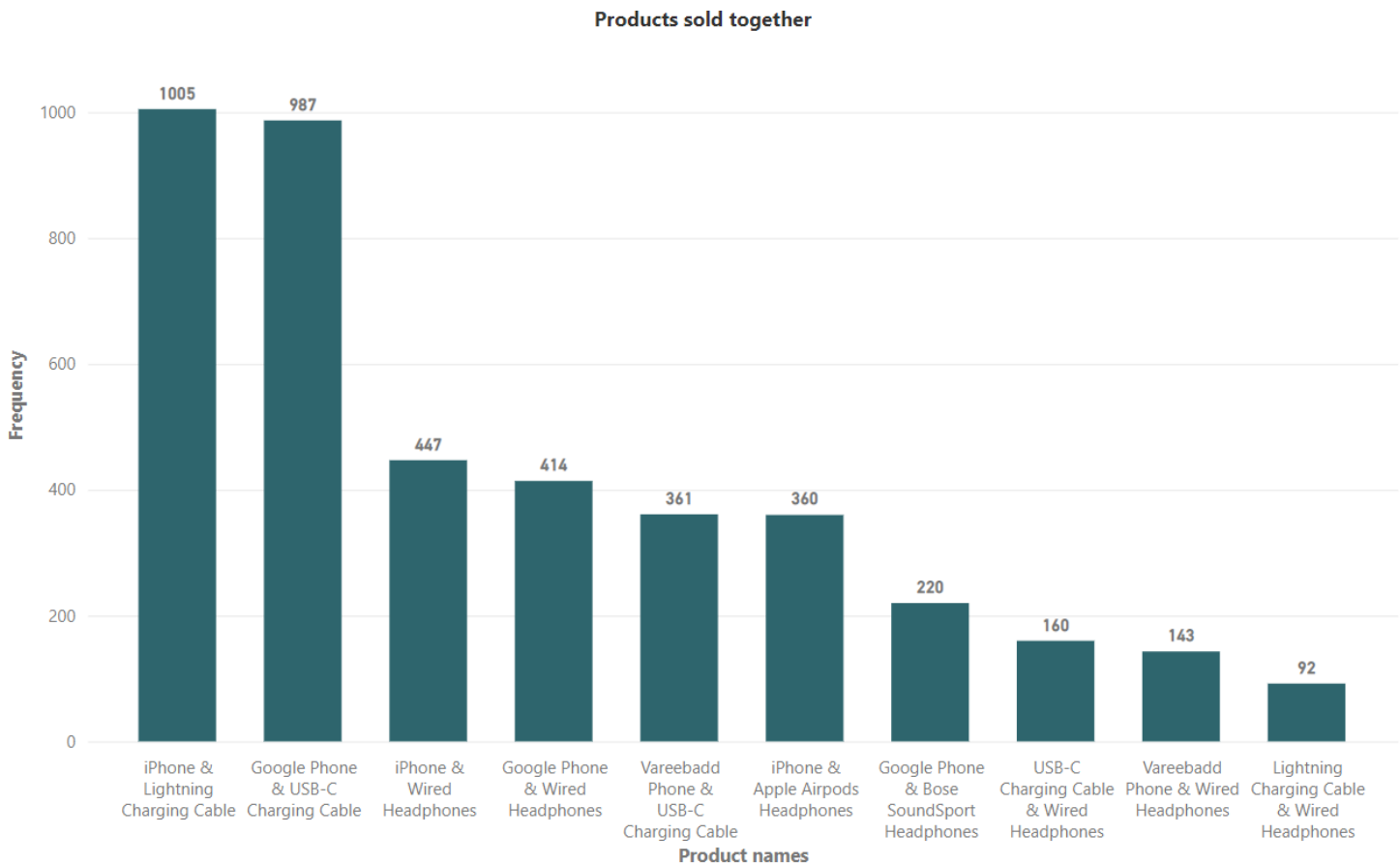| Product Type	Total Sales
Laptops	12.2M
Phones	8.9M
Monitors	6.4M
Headphones	3.9M
TVs	1.4M
Cables	0.6M
Machines	0.4M
Dryers	0.4M
Batteries	0.2M

6. What products are most often sold together?

This question Is a key to understanding what customer is looking for or thinking about and will help us to provide some good offers or deals to attract more customers

there are some products that I found are more likely to be sold together or that the customer is looking for when ordering and, based on our sales data I found that:
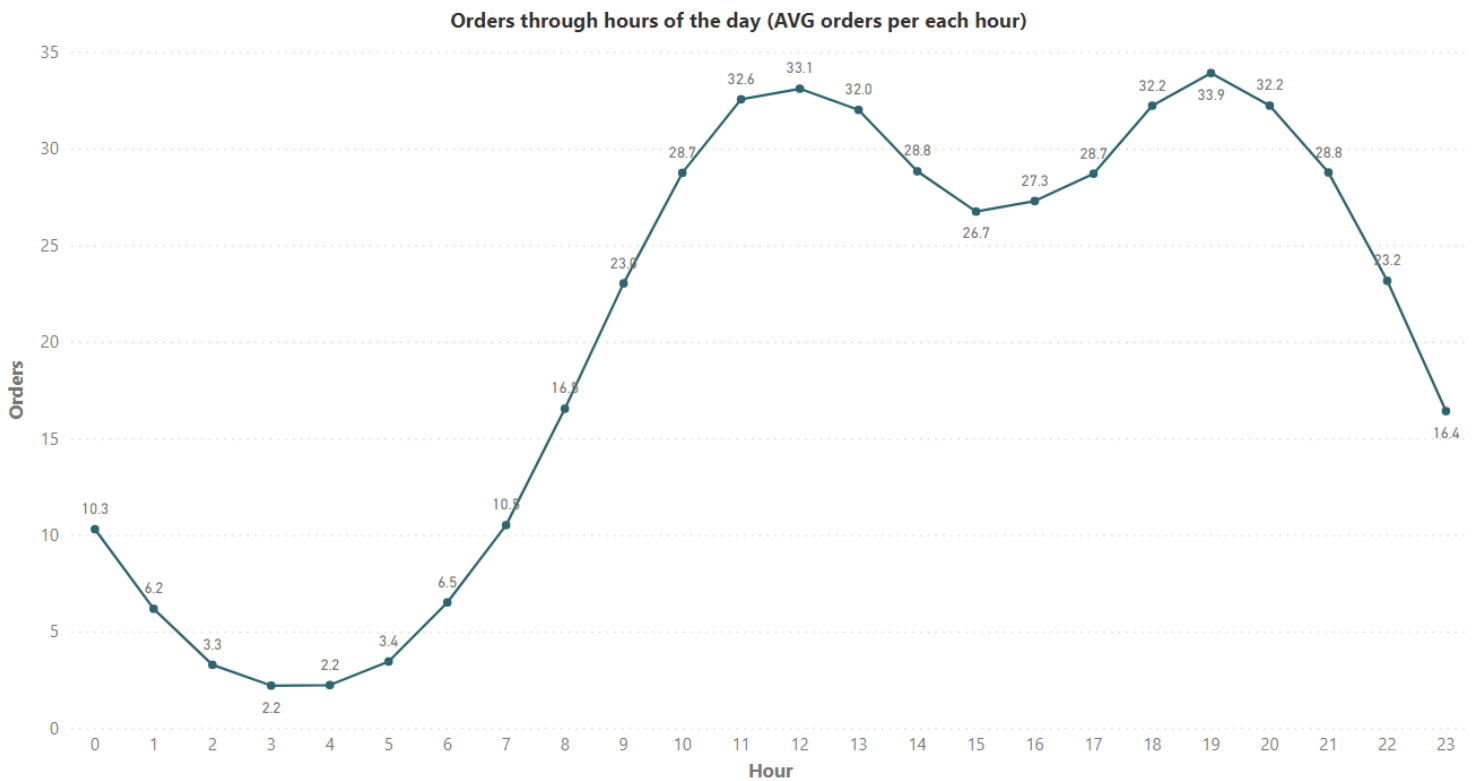
➢ iPhones with Lightning Charging Cables were the first 2 items sold together.
➢ Google Phones with USB-C Charging cables were the second 2 items sold together.

And the following graph ranks the top 10 products sold together
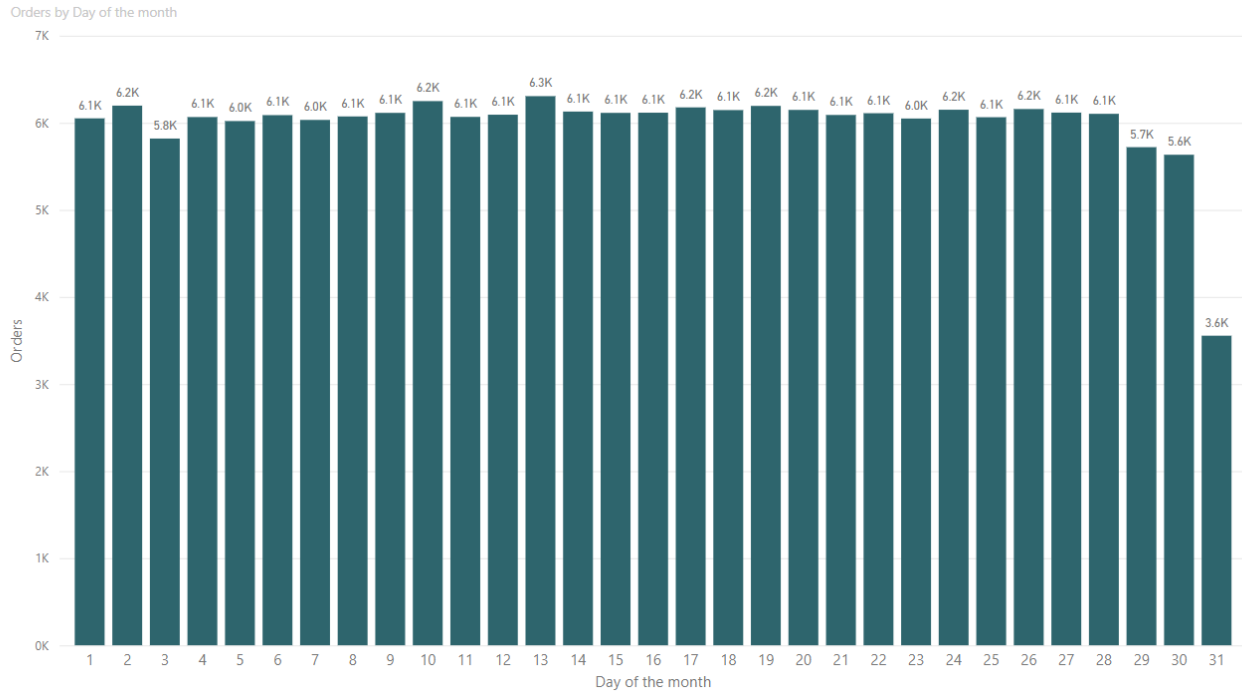
Products sold together

7. What time should we display advertisements to maximize the likelihood of purchases?

Based on the data we have there is a difference in the number of orders requested through hours of the day, hours from 11 am to 1 pm and 6 pm to 8 pm have the highest number of orders throughout the day in general and hours after midnight to 8 am has a much lower number of orders as expected, the following graph illustrates this.

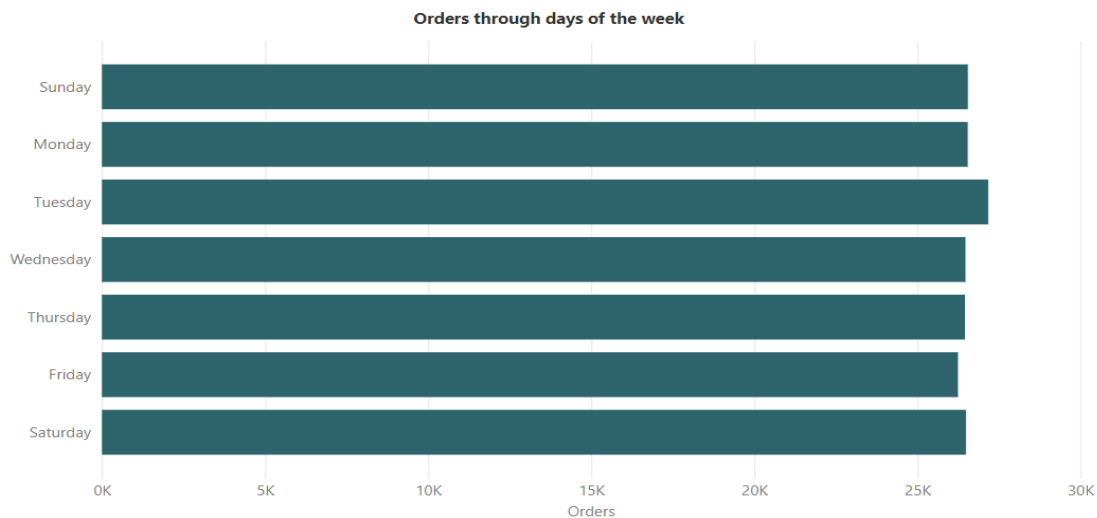**Orders through hours of the day (AVG orders per each hour)**

8. What is the best day in the month for number of orders requested?

Generally, days of the month have an equal number of orders as there is not much big difference between them however the difference is in days like 2, 10, and 13 which have a slightly higher orders number but with only 3.3% of the average number of orders of other days

Orders by Day of the month

9. what is the best day of the week for sales?

There is not much difference between weekdays in sales or the number of orders requested

Conclusion

- Best months for sales were October to December then comes the spring months (March to May).
- California, New York, and Taxes are top 3 most states in sales and orders requested.
- San Francisco, Los Angeles, and New York City are the top 3 cities in sales and orders.
- The most requested products are Charging Cables, Batteries, Headphones, iPhones, then monitors.
- laptops come in the first place as the highest product type in revenue then phones as second then monitors in third.
- iPhones with Lightning Charging Cables were the first 2 items sold together.
- Google Phones with USB-C Charging cables were the second 2 items sold together.
- Peak hours are from 11 am to 1 pm and 6 pm to 8 pm.
- The lowest number of orders requested are after midnight to 8 am.
- There's not much big difference between days of the month in the number of orders requested or sales.
- There's not much difference between weekdays in sales or the number of orders requested.

Recommendations

- Cables or headphones can be used in offers or deals with smartphones to increase the likelihood to Purchase.
- Since laptops are the most profitable type of product but have a lower number of orders compared to other products like phones, a greater number and variety must be provided to catch the customers' interest and increase purchases.
- Although batteries and cables are the most requested products, they have the lowest revenue for us so if we need to increase the sales or revenue they should not be in our priorities.
- By looking into our most sold and profitable products we can see that they are more related to entertainment (phones, headphones, Laptops, and Monitors) than services (Machines, and Dryers), hence there is a great potential for success if we add a gaming section or an entertainment section.