Data analysis of Superstore sales

Content

Summary

| 1	2	3	4	5
Top by location	**Growth**	**Category**	**Delivery**	**Segment**
Top 5 cities were in the East and West regions and brought 34% of sales	"Same day" ship mode had the highest CAGR of 40.5%	Average cost of copiers increased more than 2.5 times from 2015 to 2018	24 deliveries of "Same day" mode was completed on the next day	"Consumer" had more than 50% sales, however CAGR is more than 2 times smaller

About dataset
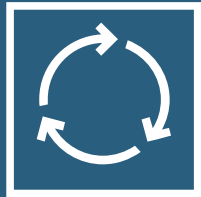
"Context
Retail dataset of a global superstore for 4 years. Perform EDA and Predict the sales of the next 7 days from the last date of the Training dataset!"

"Content
Time series analysis deals with time series based data to extract patterns for predictions and other characteristics of the data. It uses a model for forecasting future values in a small time frame based on previous observations. It is widely used for non-stationary data, such as economic data, weather data, stock prices, and retail sales forecasting."
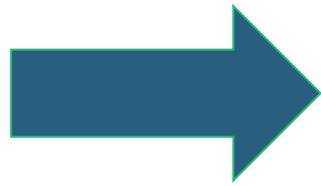
Source: Kaggle

Dataset

CSV file has 9800 rows of following 18 columns:
1. Row ID
2. Order ID
3. Order Date
4. Ship Date
5. Ship Mode
6. Customer ID
7. Customer Name
8. Segment
9. Country
10. City
11. State
12. Postal Code
13. Region
14. Product ID
15. Category
16. Sub-Category
17. Product Name
18. Sales

It is possible to group as following

Order

2. Order ID
3. Order Date
4. Ship Date
5. Ship Mode
18. Sales

Location

9. Country
10. City
11. State
12. Postal Code
13. Region

Customer

6. Customer ID
7. Customer Name
8. Segment

Product

14. Product ID
15. Category
16. Sub-category
17. Product Name

Report structure

Navigation panel, report consists out of 4 pages:
1. Map
2. KPI
3. Category
4. Customers

Filter refresh

Title or main filter

Slicer for time filtering

Navigation

| Map | KPI | Category | Customers |

Superstore sales in 2015-2018 Summary

Order date

01.01.2015   31.12.2018

"Map" page illustrates sales volumes by locations. It is possible to filter data by category, segment and ship mode filter.
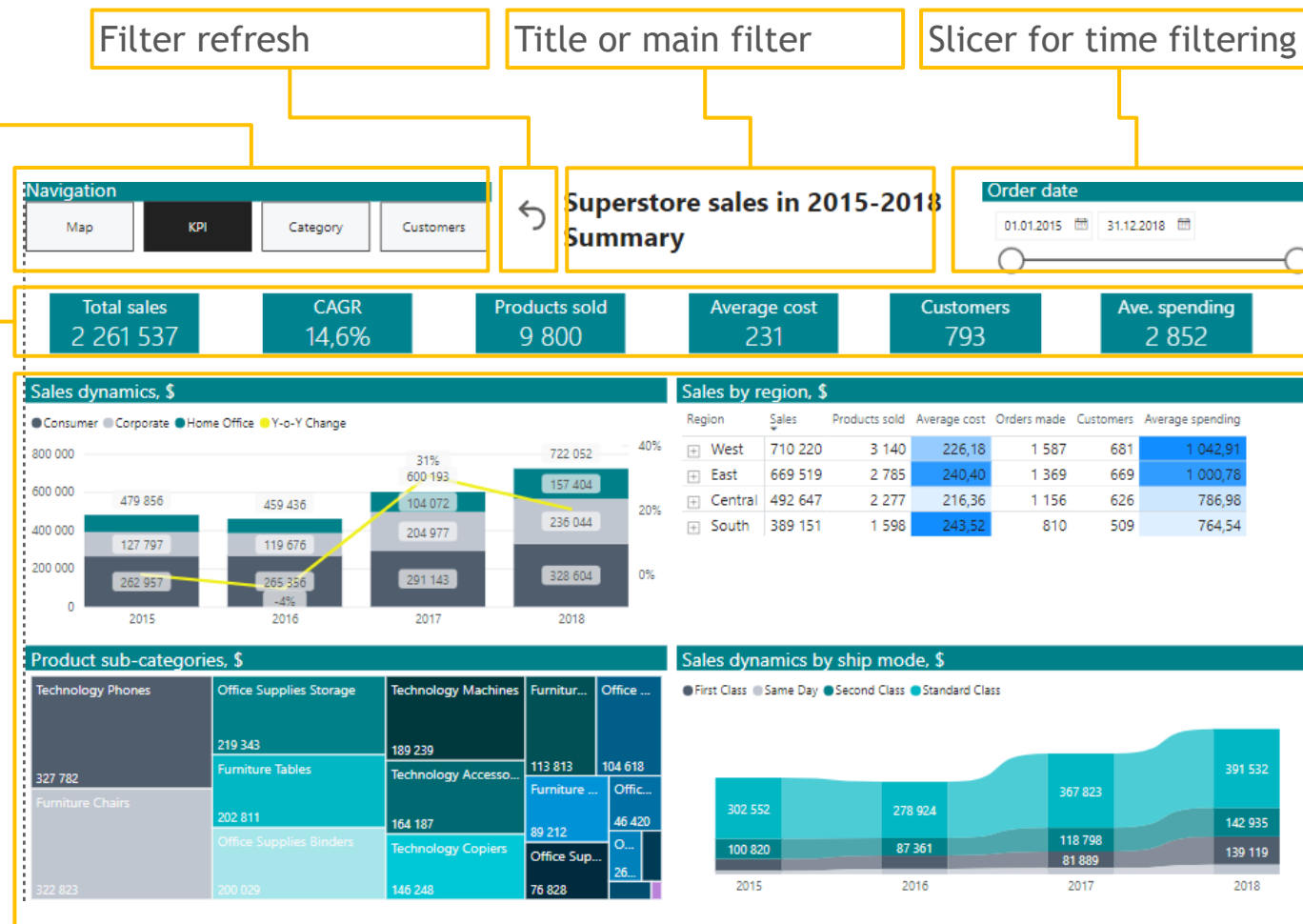"KPI" page demonstrates main Superstore sales statistics with breakdown by segment, category, location and ship mode.
"Category" page focuses on specific category and its sub-categories.
"Customers" page focuses on segments and their average spendings and waiting time.

Total sales	CAGR	Products sold	Average cost	Customers	Ave. spending
2 261 537	14,6%	9 800	231	793	2 852

Sales dynamics, $

Consumer ● Corporate ● Home Office ● Y-o-Y Change

Sales by region, $

Region	Sales	Products sold	Average cost	Orders made	Customers	Average spending
West	710 220	3 140	226,18	1 587	681	1 042,91
East	669 519	2 785	240,40	1 369	669	1 000,78
Central	492 647	2 277	216,36	1 156	626	786,98
South	389 151	1 598	243,52	810	509	764,54

Product sub-categories, $

Technology Phones 327 782
Furniture Chairs 322 823
Office Supplies Storage 219 343
Furniture Tables 202 811
Office Supplies Binders 200 029
Technology Machines 189 239
Technology Accesso... 164 187
Technology Copiers 146 248
Furnitur... 113 813
Furniture ... 89 212
76 828
Office ... 104 618
Offic... 46 420
O... 26 ...

Sales dynamics by ship mode, $

● First Class ● Same Day ● Second Class ● Standard Class
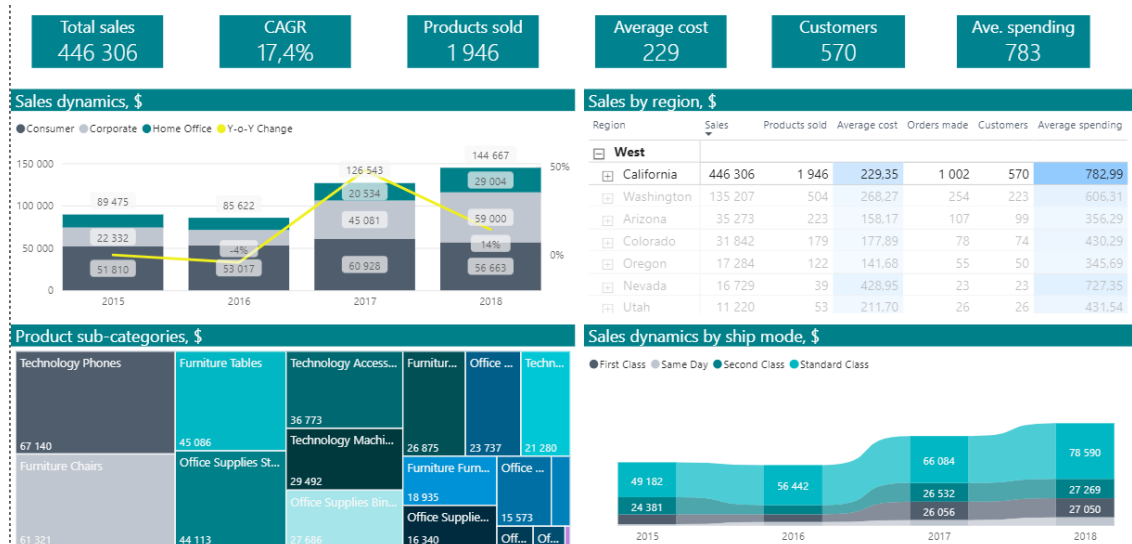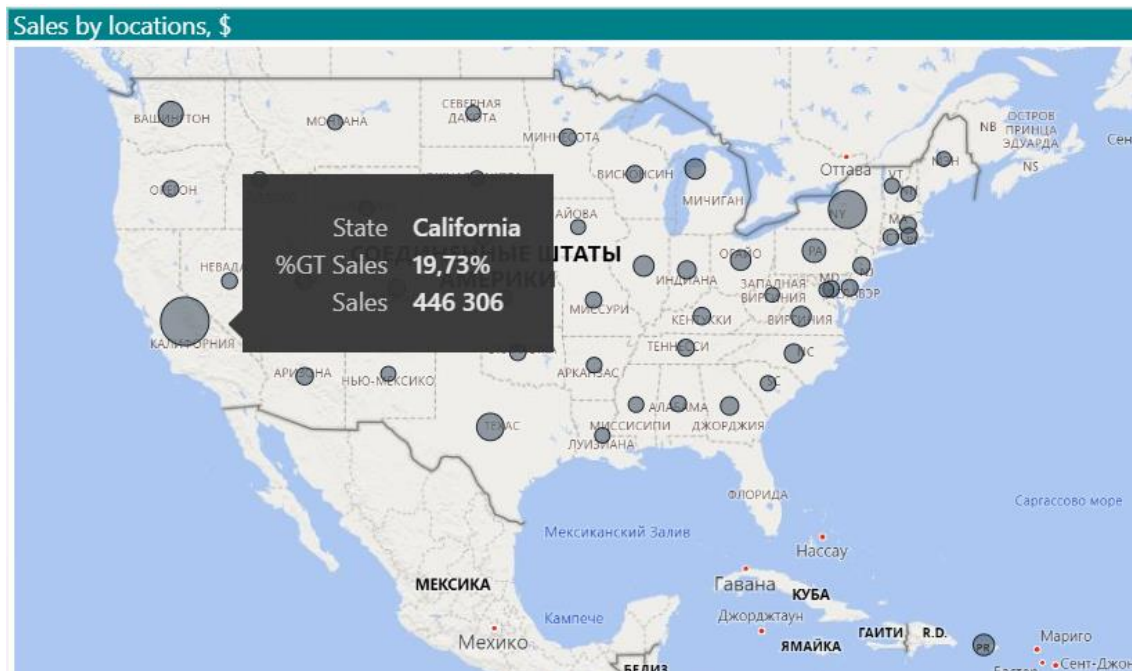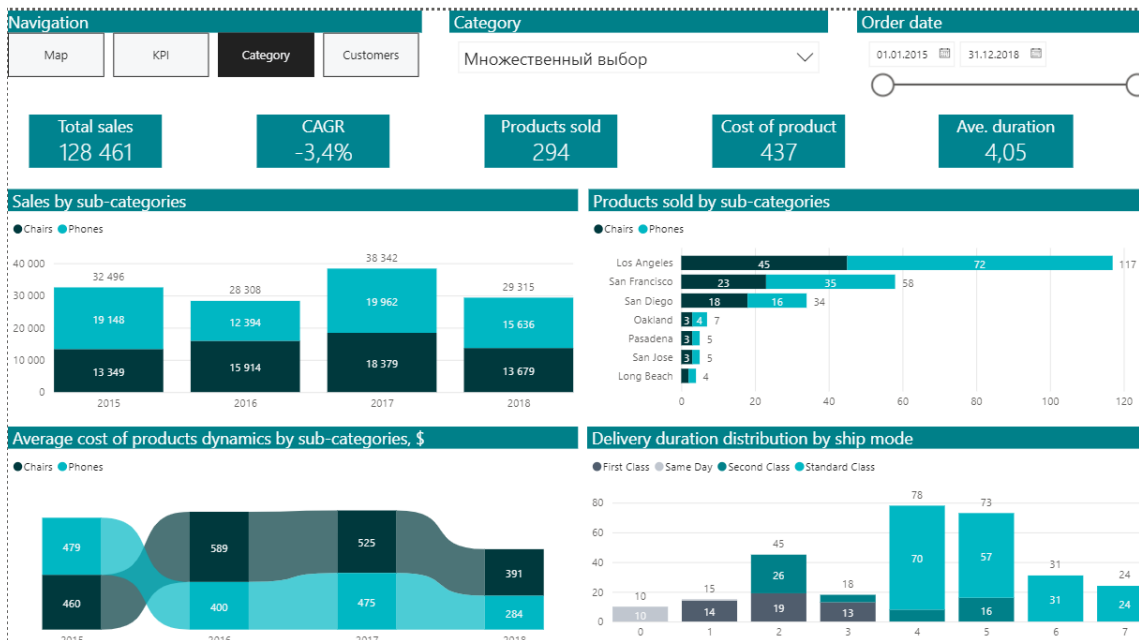
KPI cards

Mutually filtering visualizations

The top location was selected

California had around 20% of sales

The CAGR of California was higher than the average and was 17.4%

The deep dive into the categories of California sales

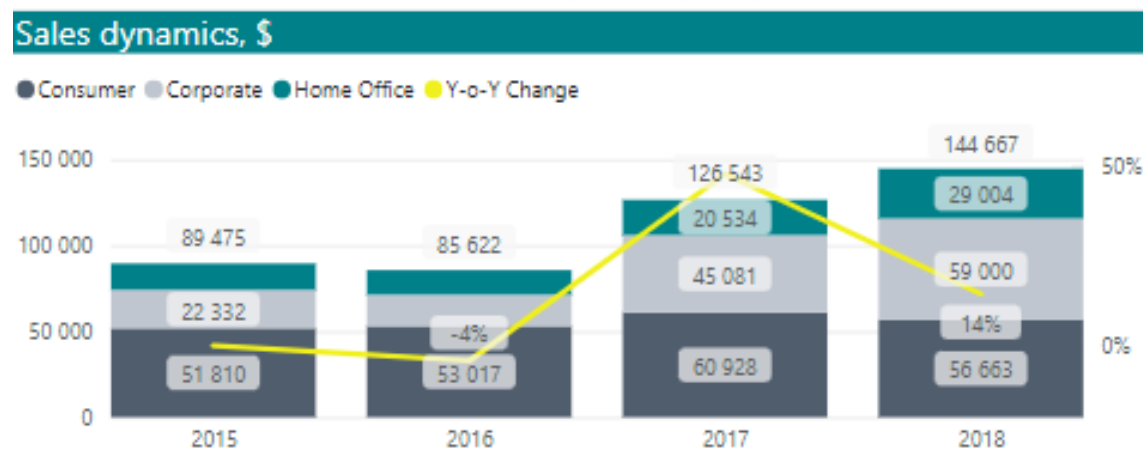29% of products sold were phones and chairs in California

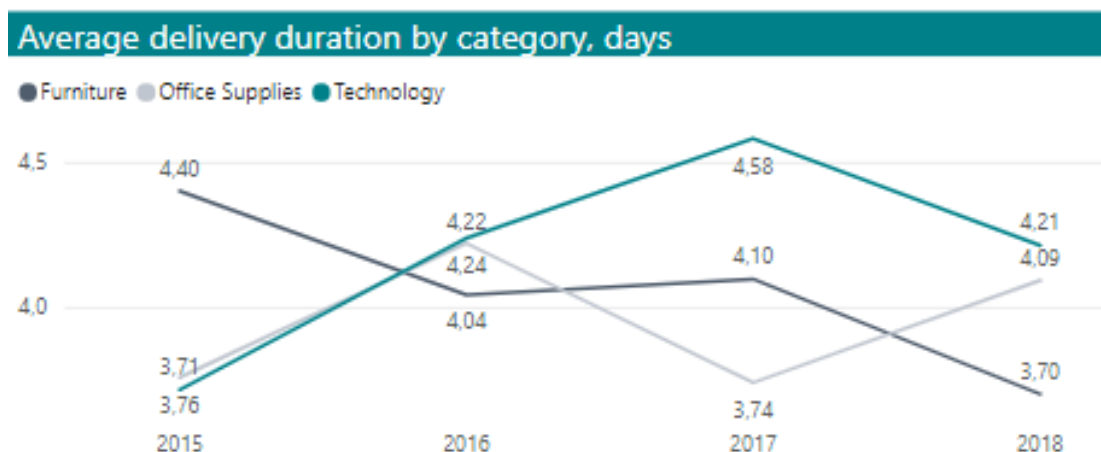The average cost of chairs become higher than the phone's one in 2016

The deep dive into the segments of California sales

The sales of corporate segment in California increased more than 2.5 times from 2015 to 2018

The average delivery duration of furniture decreased by 0.7 day for corporate segment in California

Sales dynamics, $

● Consumer ● Corporate ● Home Office ● Y-o-Y Change

Average delivery duration by category, days

● Furniture ● Office Supplies ● Technology

Conclusion

Thank you for your attention!

Questions and answers