Exploratory Data Analysis-Retail

Sample Superstore

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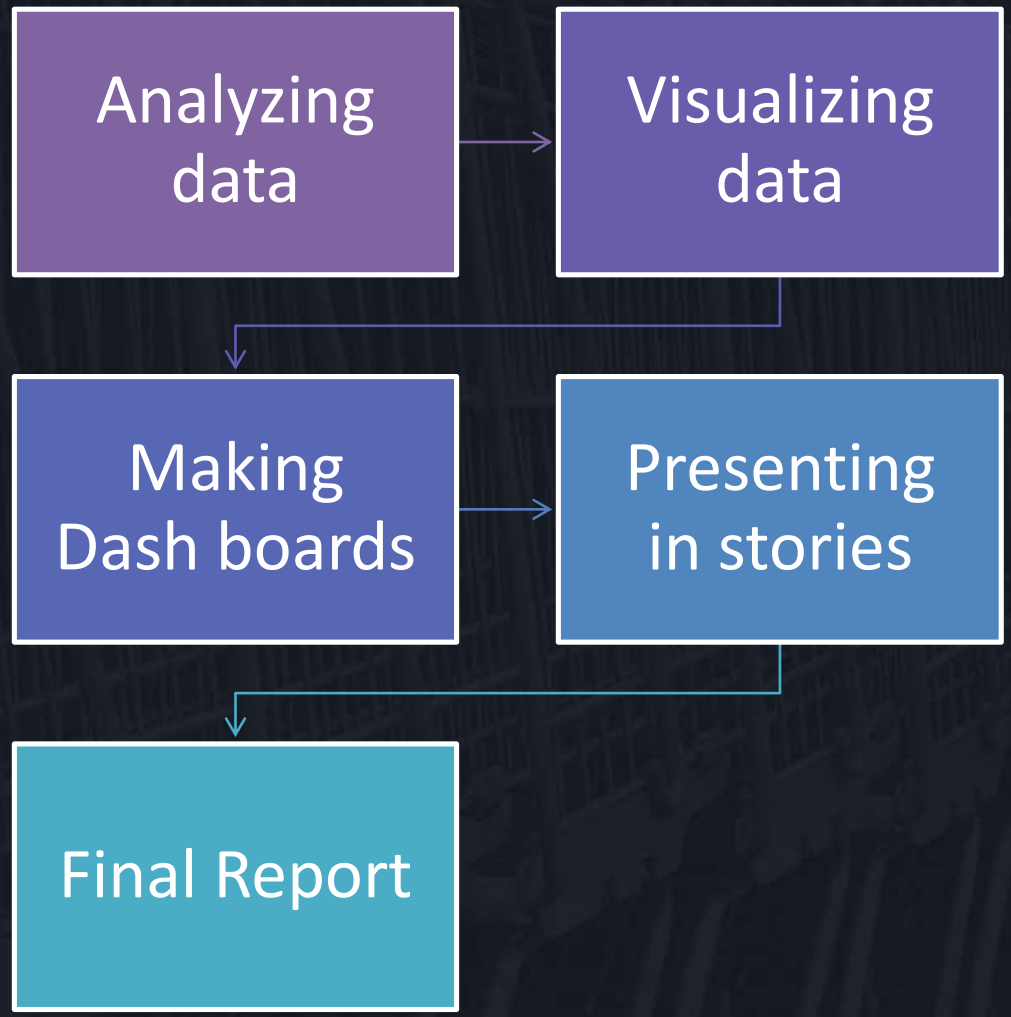
Introduction

- Superstore is a self-service shop offering a wide variety of food , beverages and household products organized into sections
- The data is related to sales analysis of the superstore
- It is visualized using Tableau tool
- The source of dataset is from The Sparks Foundation.

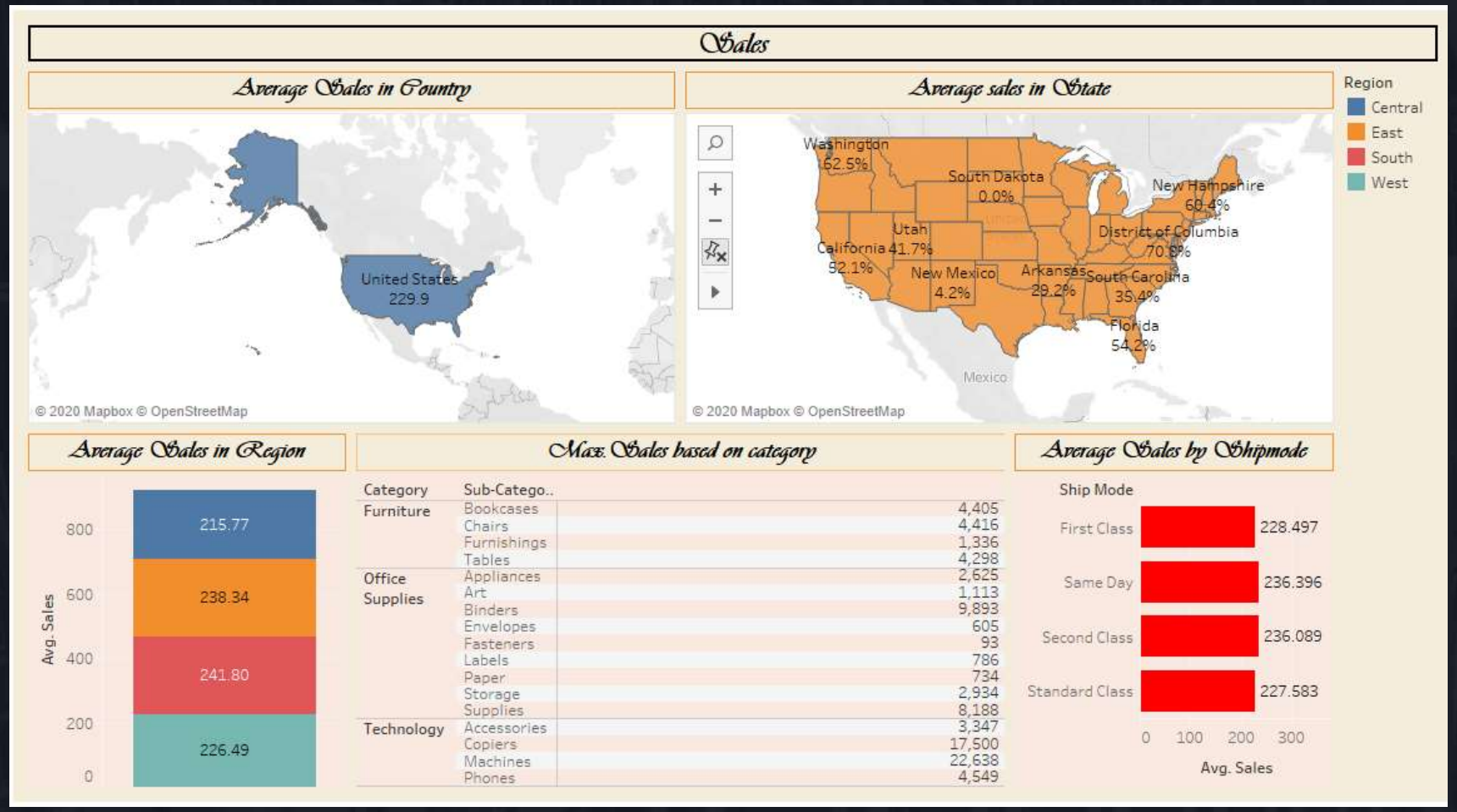
Problem Statements

- What is Maximum sales?
- What is Average sales by country , state and region?
- What is the average profit by region, ship mode and category?
- What is average profit and sales based on segment?
- What is the percent of sales by ship mode and segment?
- What is the quantity of sub-category?
- What is Discount% by sub-category

Process


Analyzing data
Visualizing data
Making Dash boards
Presenting in stories
Final Report

Analysis


Sales
Average Sales in Country
United States
229.9
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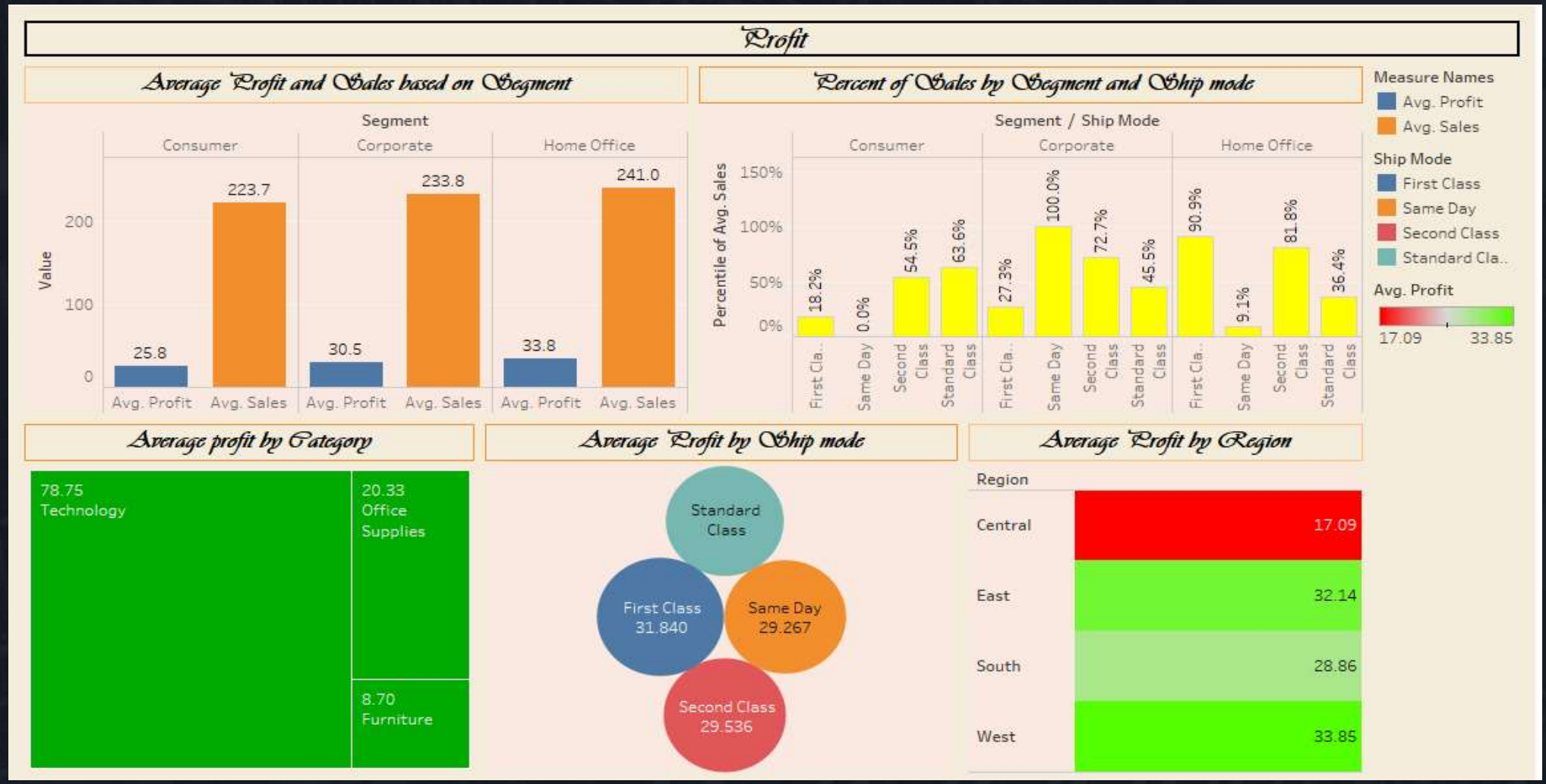
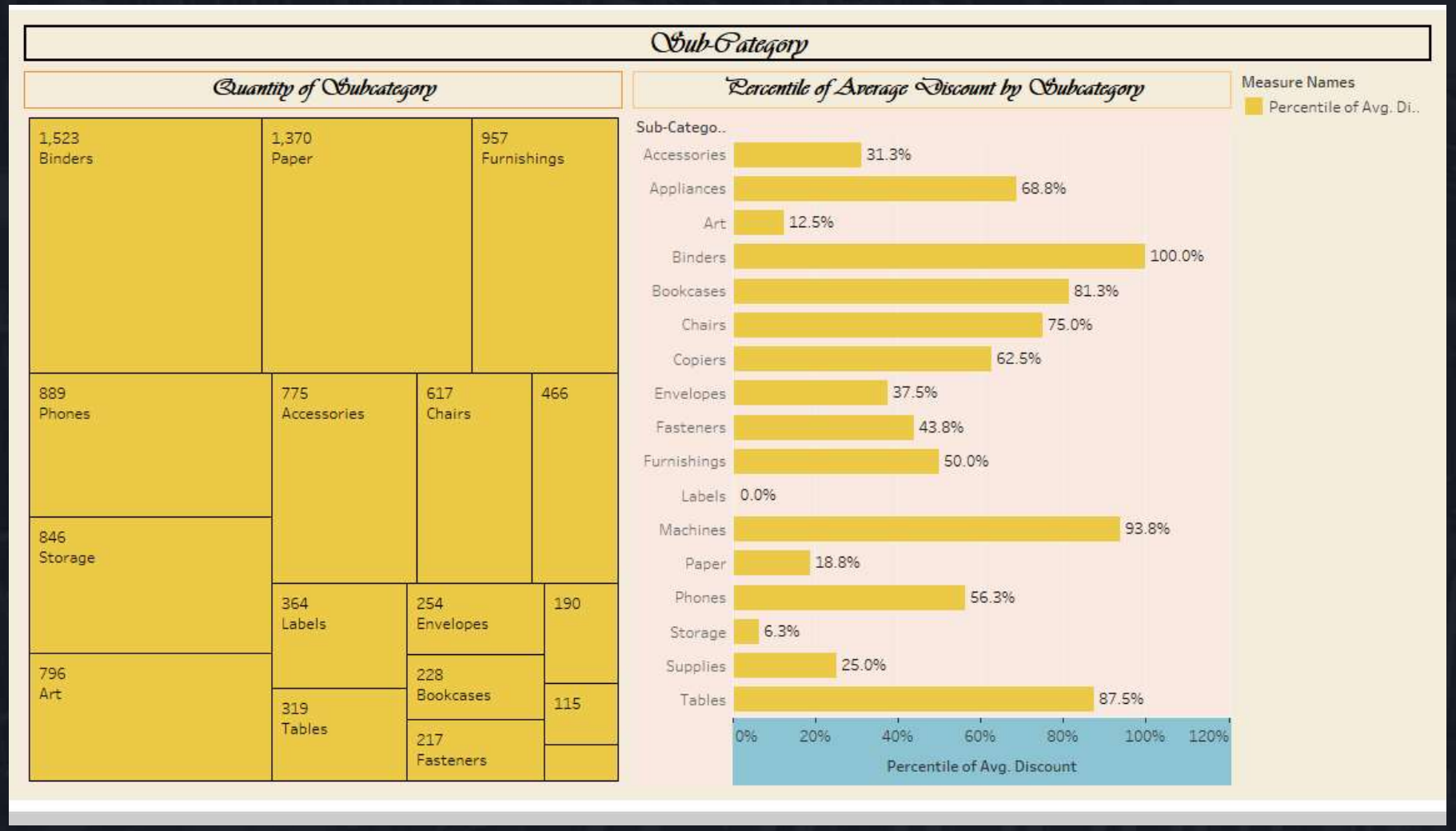
Average sales in State
Washington
62.5%
South Dakota
0.0%
New Hampshire
60.4%
Utah
California 41.7%
52.1%
District of Columbia
70.8%
New Mexico
4.2%
Arkansas
29.2%
South Carolina
35.4%
Florida
54.2%
Mexico
© 2020 Mapbox © OpenStreetMap
Region
Central
East
South
West
Average Sales in Region
Avg. Sales
800
600
400
200
0
215.77
238.34
241.80
226.49
Max Sales based on category
Category
Sub-Catego..
Furniture
Bookcases 4,405
Chairs 4,416
Furnishings 1,336
Tables 4,298
Office Supplies
Appliances 2,625
Art 1,113
Binders 9,893
Envelopes 605
Fasteners 93
Labels 786
Paper 734
Storage 2,934
Supplies 8,188
Technology
Accessories 3,347
Copiers 17,500
Machines 22,638
Phones 4,549
Average Sales by Shipmode
Ship Mode
First Class 228.497
Same Day 236.396
Second Class 236.089
Standard Class 227.583
0
100
200
300
Avg. Sales

Analysis


Profit
Average Profit and Sales based on Segment
Segment
Consumer
Corporate
Home Office
Value
200
100
0
25.8
223.7
30.5
233.8
33.8
241.0
Avg. Profit
Avg. Sales
Percent of Sales by Segment and Ship mode
Segment / Ship Mode
Percentile of Avg. Sales
150%
100%
50%
0%
18.2%
0.0%
54.5%
63.6%
27.3%
100.0%
72.7%
45.5%
90.9%
9.1%
81.8%
36.4%
First Cla..
Same Day
Second Class
Standard Class
Measure Names
Avg. Profit
Avg. Sales
Ship Mode
First Class
Same Day
Second Class
Standard Cla..
Avg. Profit
17.09
33.85
Average profit by Category
78.75
Technology
20.33
Office Supplies
8.70
Furniture
Average Profit by Ship mode
Standard Class
First Class
31.840
Same Day
29.267
Second Class
29.536
Average Profit by Region
Region
Central
17.09
East
32.14
South
28.86
West
33.85

Analysis


Sub-Category
Quantity of Subcategory
1,523
Binders
1,370
Paper
957
Furnishings
889
Phones
775
Accessories
617
Chairs
466
846
Storage
364
Labels
254
Envelopes
190
796
Art
319
Tables
228
Bookcases
115
217
Fasteners
Percentile of Average Discount by Subcategory
Measure Names
Percentile of Avg. Di..
Sub-Catego..
Accessories 31.3%
Appliances 68.8%
Art 12.5%
Binders 100.0%
Bookcases 81.3%
Chairs 75.0%
Copiers 62.5%
Envelopes 37.5%
Fasteners 43.8%
Furnishings 50.0%
Labels 0.0%
Machines 93.8%
Paper 18.8%
Phones 56.3%
Storage 6.3%
Supplies 25.0%
Tables 87.5%
0% 20% 40% 60% 80% 100% 120%
Percentile of Avg. Discount

Results

The outcomes of the task are

- Average Sales in Country is 229.9 and sales is 91.7% in Montana.
- Highest sales is from first class of the ship mode and South in Region.
- We have highest average profit on technology category in firstclass shipping mode in west region
- We have highest sales and profit in Home-office segment

Conclusion

- The analysis is purely based on the sales of the supermarket.
- In general the supermarket sales is based on quality of the products and customer type.
- The Quantity of the subcategory plays major part in the percent of Discounts availed.
- Percentage of sales is increased or decreased in accordance with both segment and ship mode.
- Maximum number of sales in done on Machines that falls under technology category.
- On Average the sales percentage in the state in 91.7%.


Thank You

Links

Video

https://drive.google.com/file/d/1uxGZaVunX8B-JeSDnmnenBa1uGhR5Yyt/view?usp=sharing

Project

https://public.tableau.com/views/Sample_Superstore_16072264269580/Story1?:language=en&:display_count=y&:origin=viz_share_link