Hult Superstore: Data-Driven Strategic Recommendations and Business Report
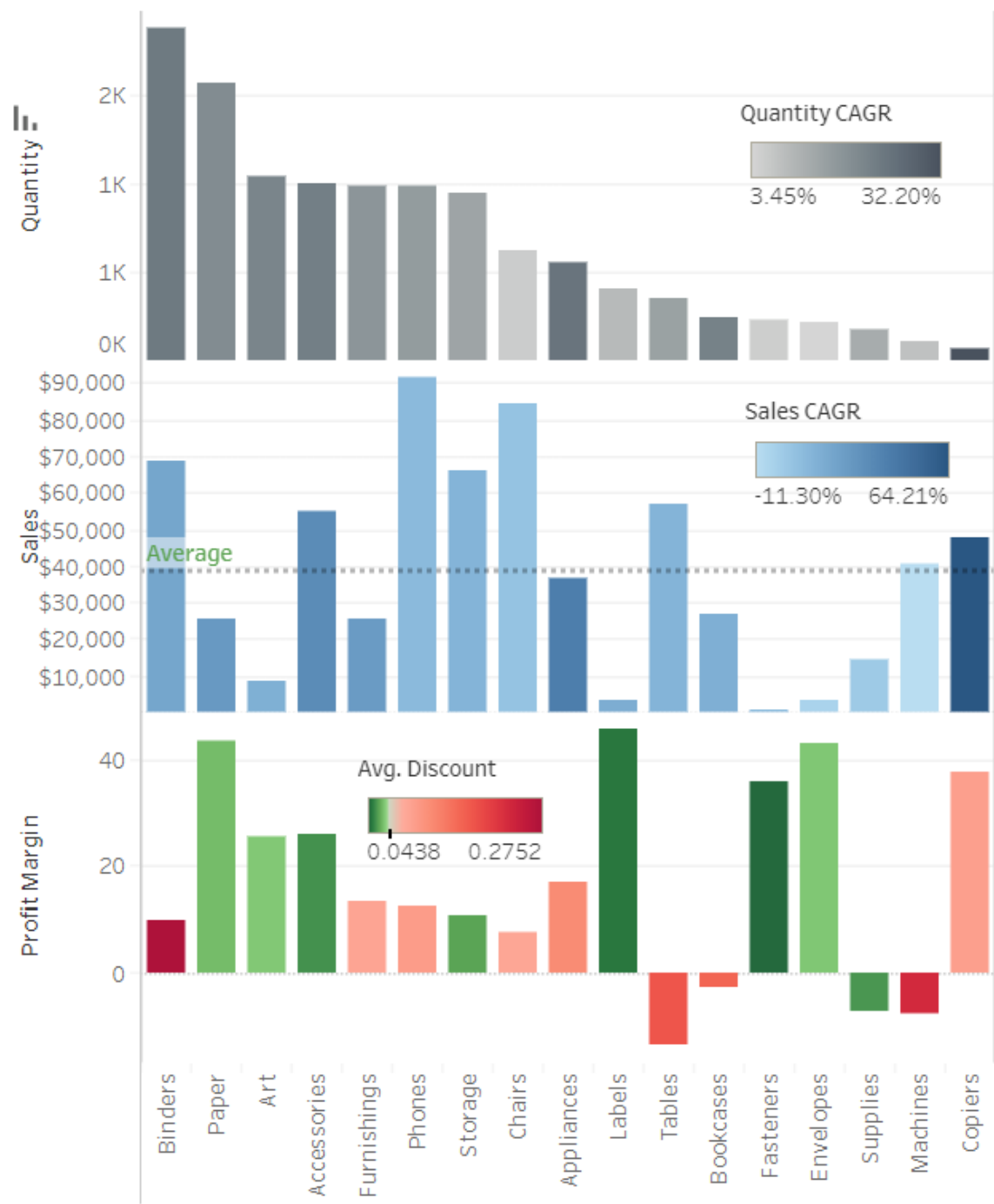
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Data Visualization & Analysis - QTM-6032 - FMBAN1

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**Hult Superstore: Data-Driven Strategic Recommendations and Business Report**

The top 5 subcategories ranked by quantity sold are Binders, Paper, Art, Accessories, and Furnishings.

Binders have the highest quantity sold with a 3-year cumulative growth rate of 23.35% in quantity sold, but the profit margin is low due to high discounts offered.
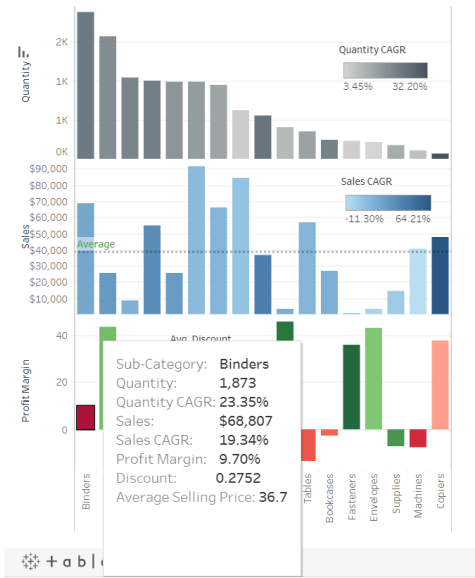

Paper has the second-highest quantity sold with a very high profit margin of 43.66%, but the sales value is low due to a lower average selling price.
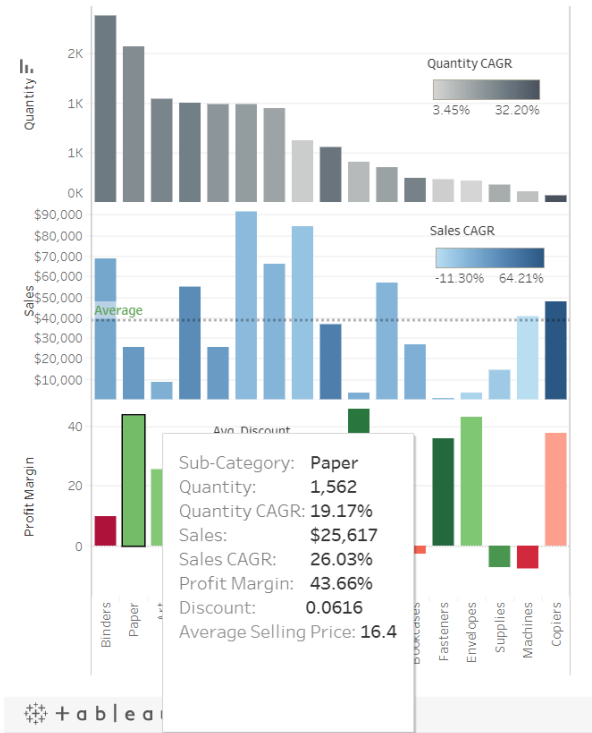
Art has a lower quantity sold and very low sales value due to a very low selling price.

Accessories have the fourth-highest quantity sold with strong quantity CAGR of 22.21% and low

discounts, but with a higher average selling price.
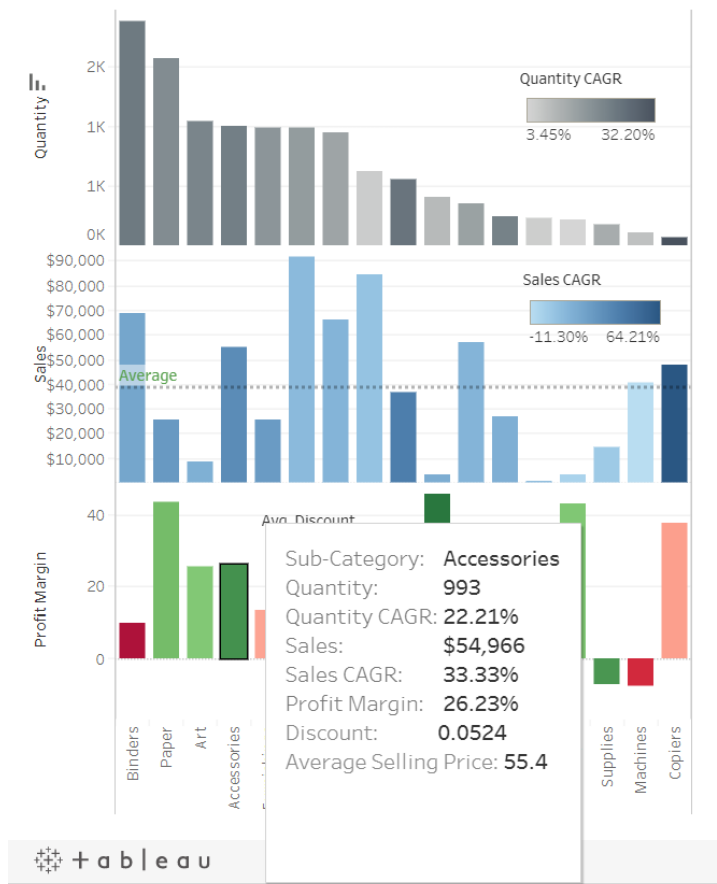
Furnishings have a high quantity sold but low sales value due to a lower average selling price

and lower profit margin due to higher discounts.

Subcategory potential

We plotted all subcategories in a graph based on sales value, profit margin, and quantity sold. We added two reference lines, Profit Margin Success, and Sales Success, to evaluate the performance of each subcategory. The top-right quadrant gives us the subcategories that are performing above the expected profit margin and expected sales.
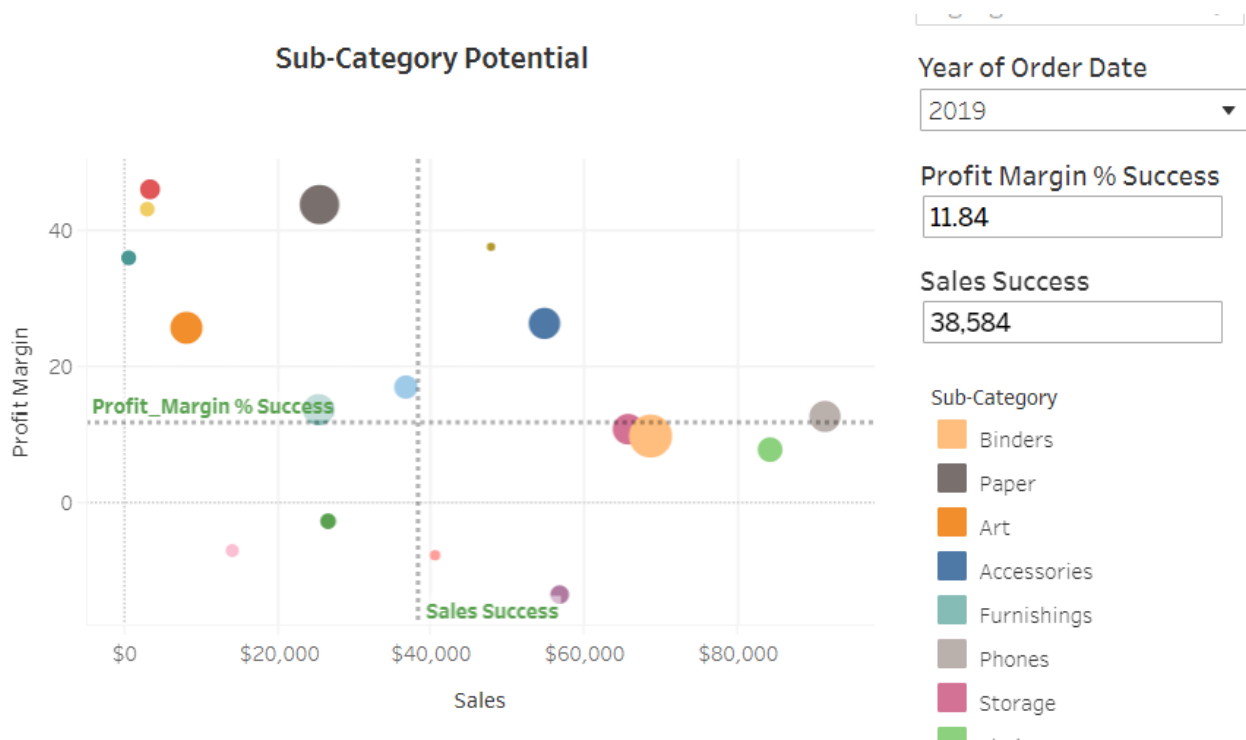

We have evaluated performance based on the 2019 profit margin of 11.84% and average sales of $38,585 and identified Accessories as subcategory with most potential which is also corroborated by the top 5 subcategory analysis we did, where it was a high performing subcategory.

Focus Sub-category Deep dive

For accessories, all regions and states are profitable.
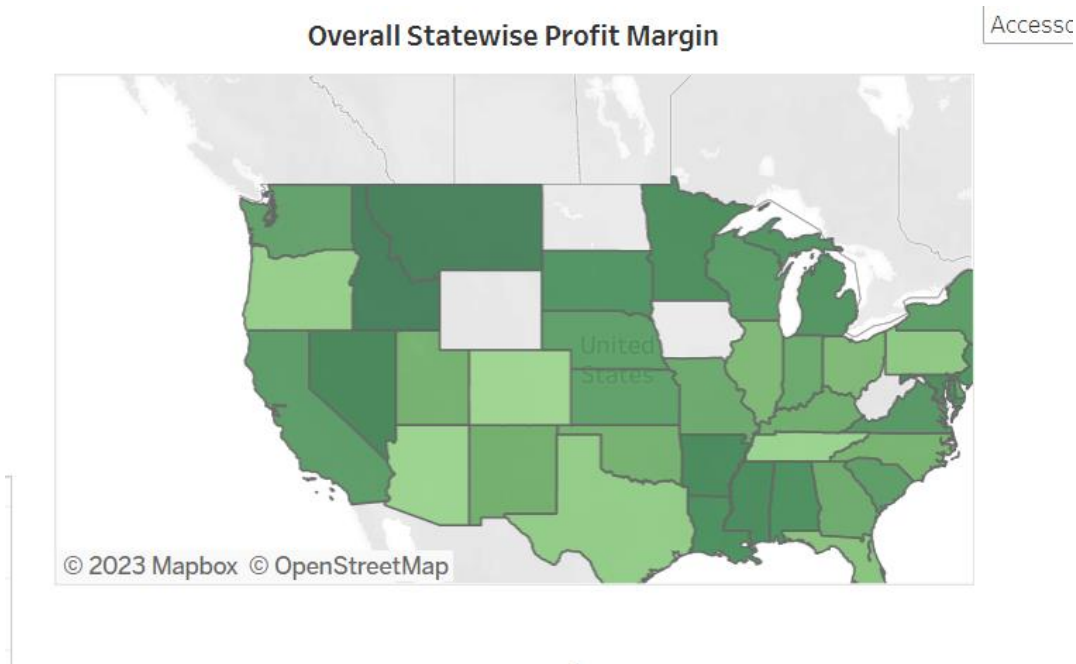
However, West region performs the best, led by California with high sales, customers and quantity sold. Superstore can look at advertising in West region, specifically California to boost sales.
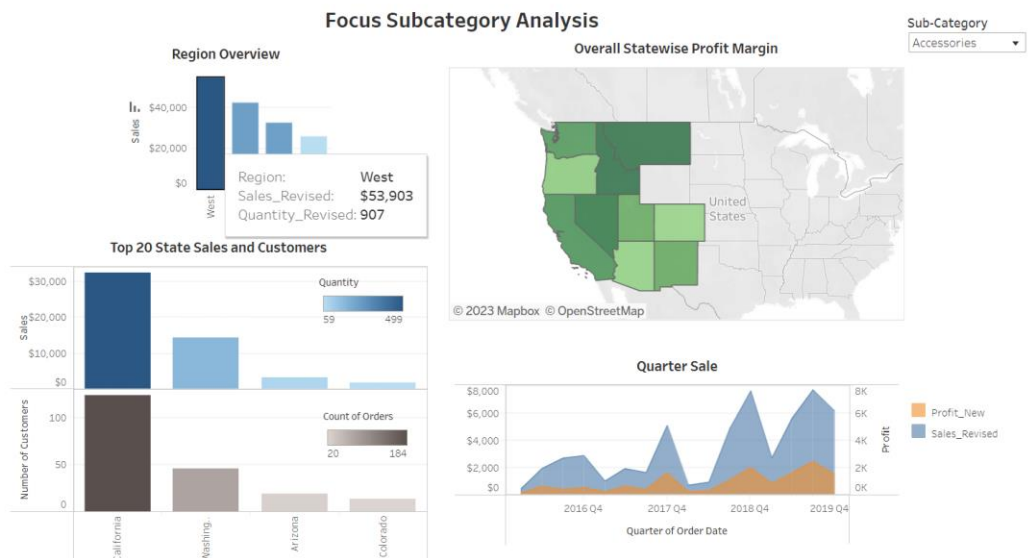
Finally, when we look at the sales and profit quarter trend, we see that the sales generally peak in Q4. Hence, we suggest starting marketing effort in Q3 to create enough traction by Q4 for the sales to peak.
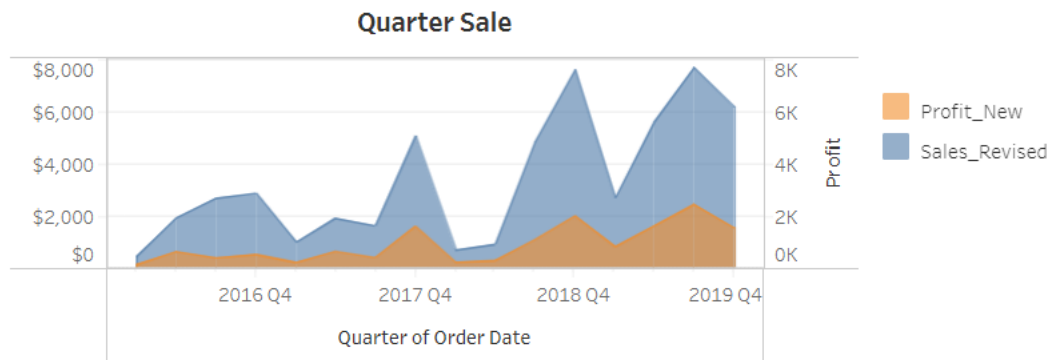
Business Insights

1. Binders are the most popular category with the highest quantity sold and the highest number of customers purchasing this subcategory. However, profit margins are low due to high discounts provided. The management should focus on how they can create customer pull while reducing discounts to make this business line more profitable.

2. Management should consider putting marketing funds behind Accessories as it is one of the best-performing subcategories with substantial customers purchasing it.

3. Machines and Supplies have low orders and negative profits and hence are suggested to be discontinued.

4. Copiers have lowest orders and high discounts but have a high profit margin and average selling price. It is suggested to invest in copiers (possibly through discounts) to make them bigger.

5. Overall sales and profit peaks for Superstore in Q4, hence whenever they want to put marketing effort, they should do it in Q3 end or starting of Q4.

6. Majority of Superstore business is concentrated in California and New York and these states are also profitable. Hence, the company should focus on these markets.

Appendix

Dashboard -1: Overview of Sub-Category Analysis.

1. Year filter used for the graphs
2. Interactive Reference lines used in the Sub-Category potential plot.
    a. Profit Margin % Success: Can be adjusted to find subcategories performing above a certain profit margin
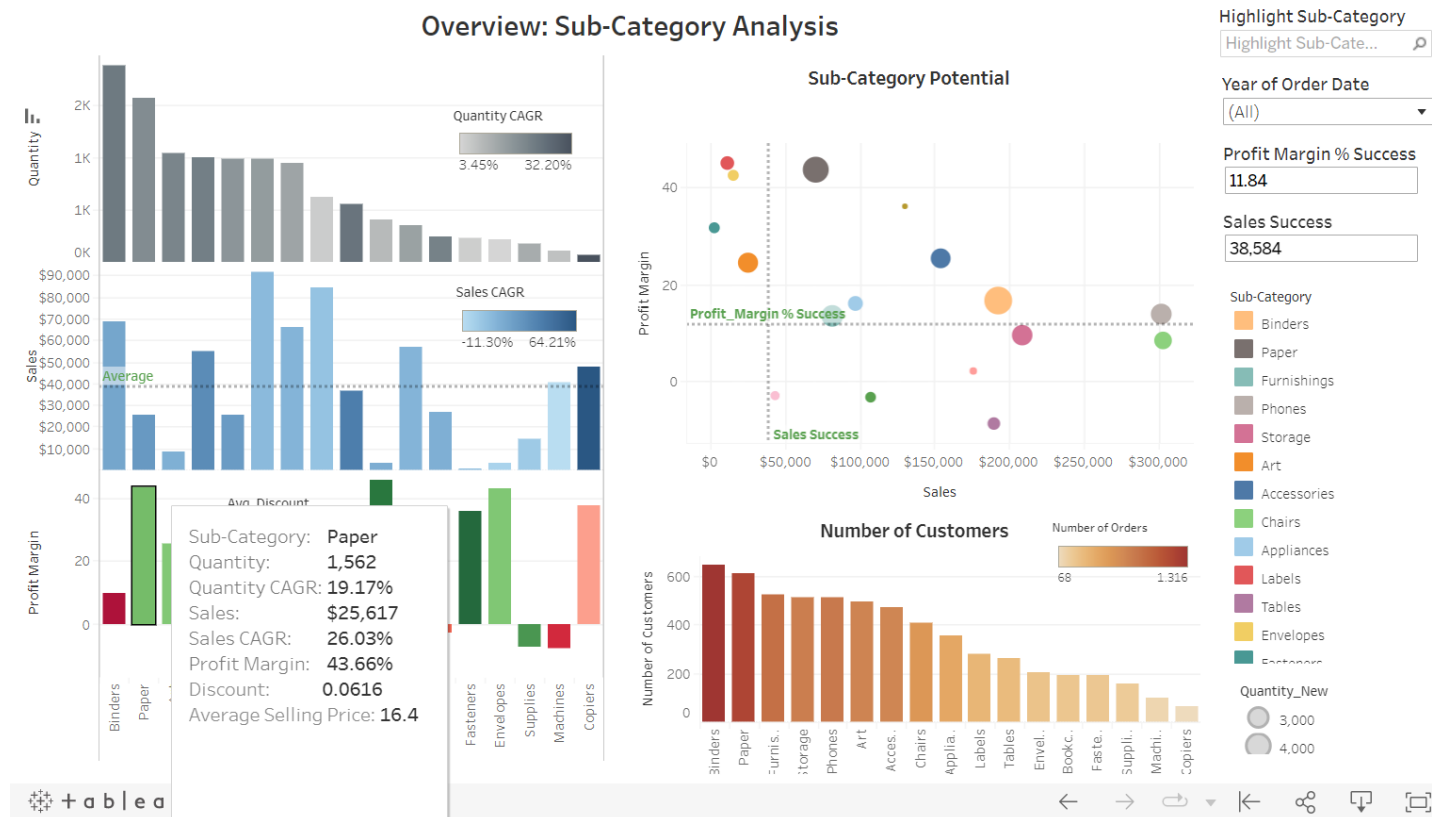   b. Sales Success: Can be adjusted to find subcategories performing above a certain sales value

Figure 1: Dashboard 1 with Subcategory analysis with Reference lines and Filters

Dashboard -2: Focus Subcategory Analysis.

1. Subcategory filter used will change all the graphs basis selected subcategory (Here it is Accessories)
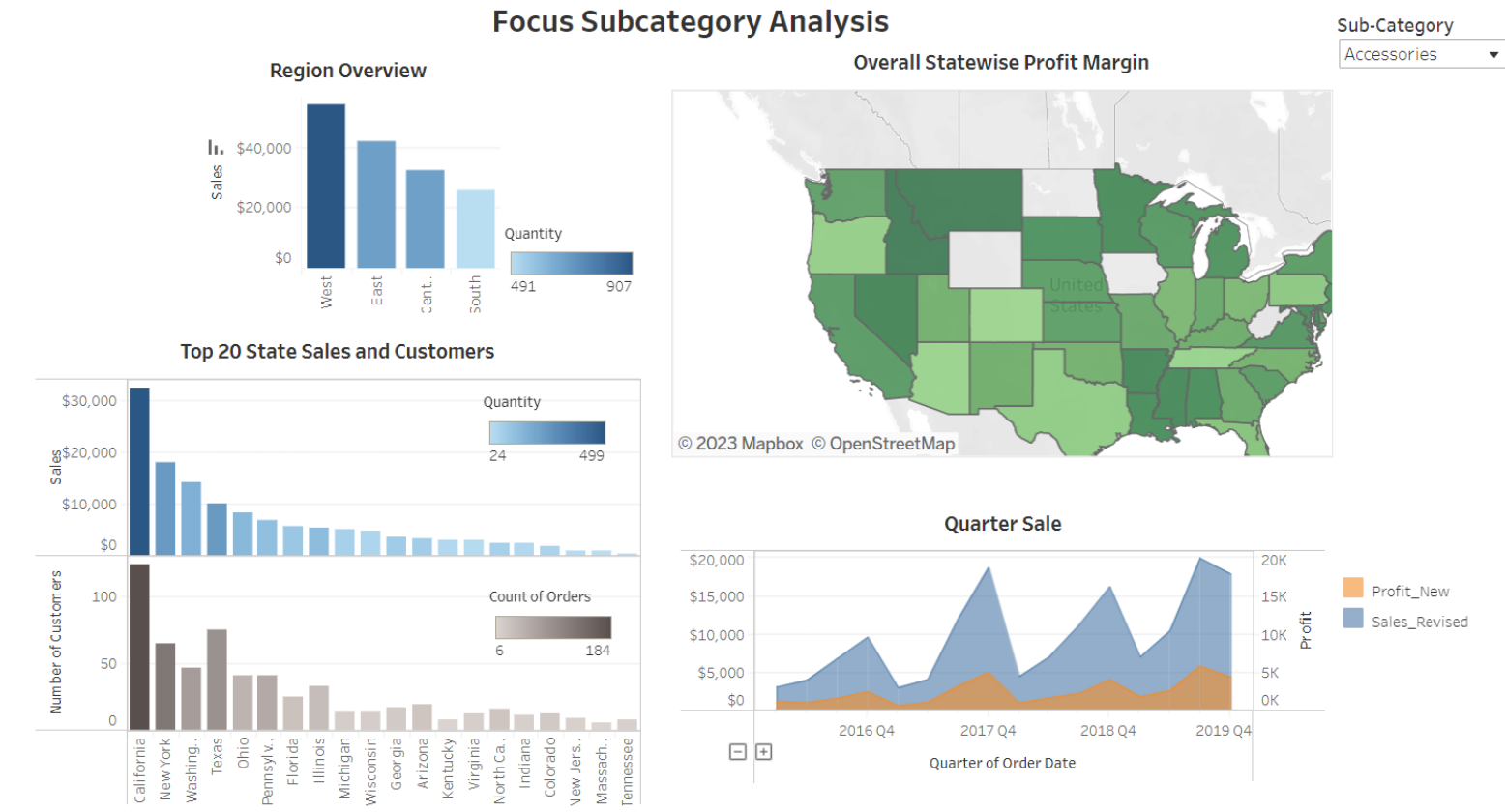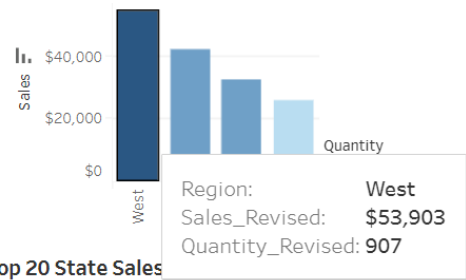2. Hover action used to connect graphs (see Figure 2)
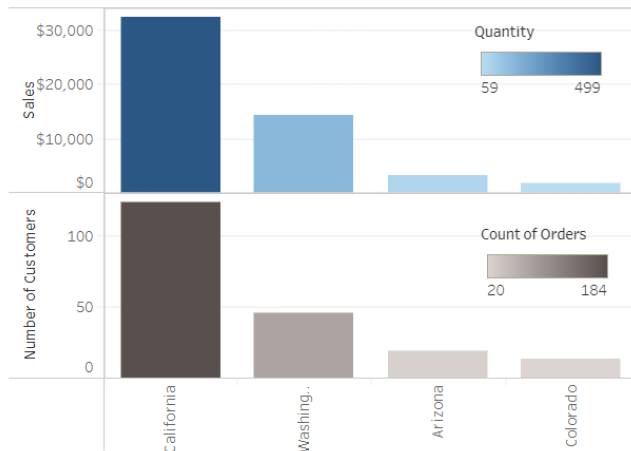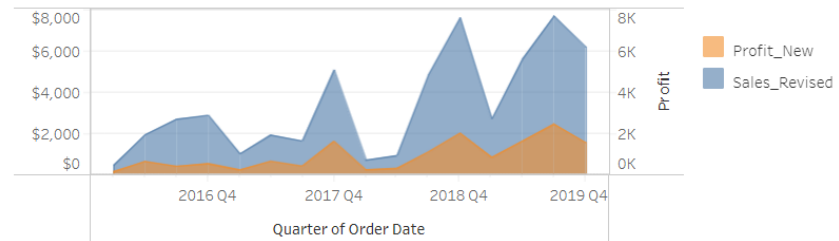

Figure 2: Dashboard 2 with filter and Hover action
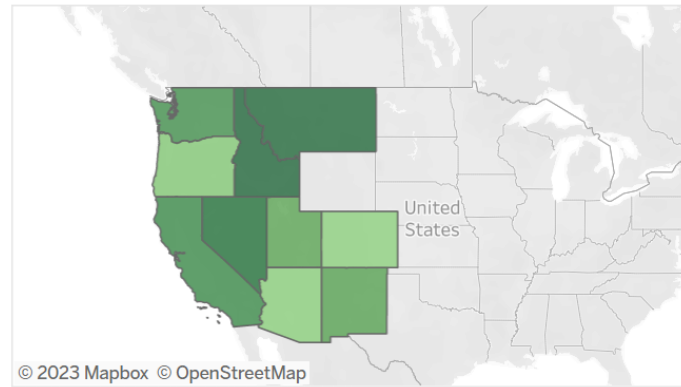
Figure 3: Hovering over "West Region" shows all data for West Region only