Adventure Works Sales Deck

Intro

For this task I have used Python to preprocess data.

Two datasets were created from the original (Absolute and Like for Like), even though only one was used for the Tableau dashboard.

From existing variables, few more were derived:

- Actual Sales

- Cost of Goods Sold

- Front Margin

- Gross Margin

- Is Promo?

These should help us track what is happening with our sales.

Absolute shows trends in the company as is, growth included. L4L would exclude growth (e.g. Sales location) and only show sales changes based on previous year.

Reasoning behind this is that adding Like for Like analysis would require much more slides over the 10 slide limit. (Even now it's more, but excluding welcome, intro and conclusion it fits the requirement)
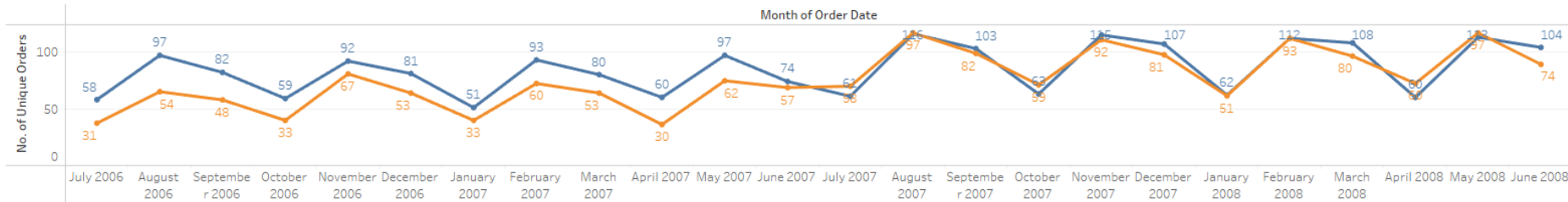
Revenue Drivers
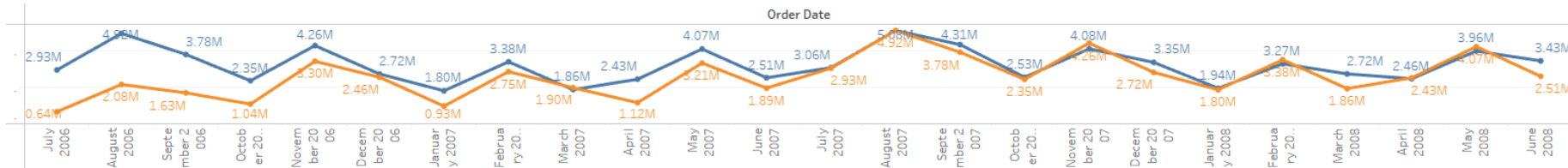
Sales start slowly declining around December 2007.
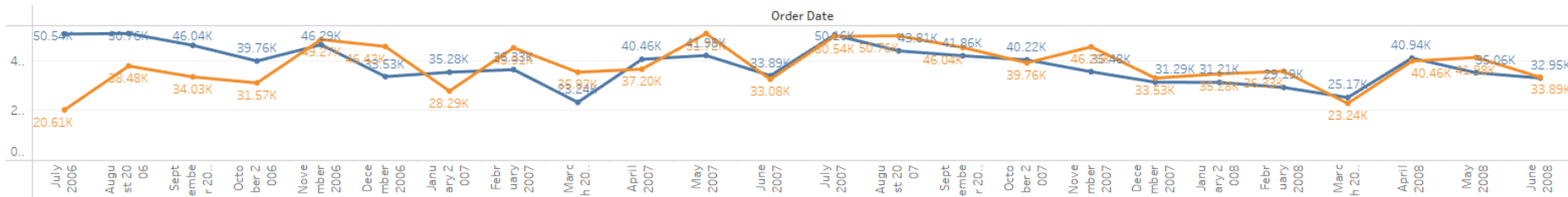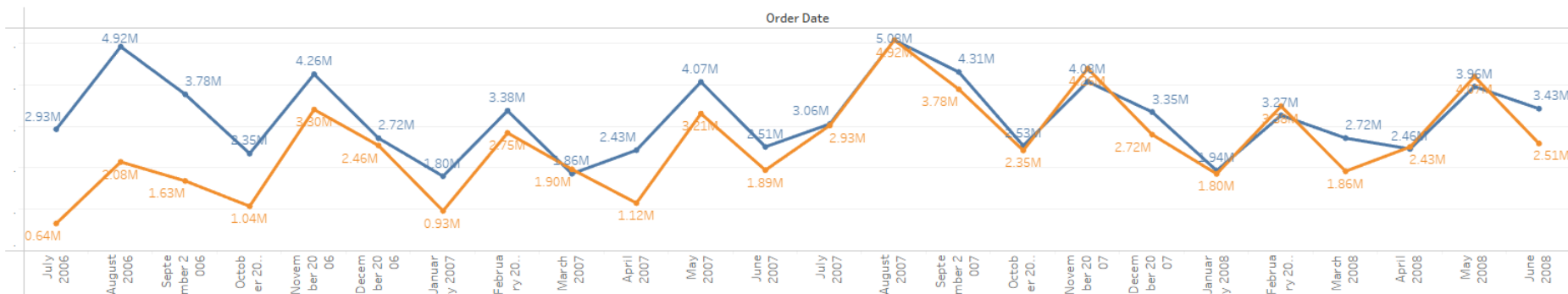
It has great impact on average basket.

Number of orders stays relatively stable which means people started purchasing less expensive SKU's.

Abs. Sales

Order Date

Current Year: 2.93M, 4.86M, 3.78M, 2.35M, 4.26M, 2.72M, 1.80M, 3.38M, 1.86M, 2.43M, 4.07M, 2.51M, 3.06M, 5.06M, 4.31M, 2.53M, 4.08M, 3.35M, 1.94M, 3.27M, 2.72M, 2.46M, 3.96M, 3.43M

Last Year: 0.64M, 2.08M, 1.63M, 1.04M, 3.30M, 2.46M, 0.93M, 2.75M, 1.90M, 1.12M, 3.21M, 1.89M, 2.93M, 4.92M, 3.78M, 2.35M, 4.26M, 2.72M, 1.80M, 3.38M, 1.86M, 2.43M, 4.07M, 2.51M

Order dates: July 2006, August 2006, September 2006, October 2006, November 2006, December 2006, January 2007, February 2007, March 2007, April 2007, May 2007, June 2007, July 2007, August 2007, September 2007, October 2007, November 2007, December 2007, January 2008, February 2008, March 2008, April 2008, May 2008, June 2008

Abs. Orders

Month of Order Date

No. of Unique Orders

Current Year: 58, 97, 82, 59, 92, 81, 51, 93, 80, 60, 97, 74, 62, 116, 103, 62, 115, 107, 62, 112, 108, 60, 113, 104

Last Year: 31, 54, 48, 33, 67, 53, 33, 60, 53, 30, 62, 57, 56, 97, 82, 59, 92, 81, 51, 93, 80, 59, 97, 74

Months: July 2006, August 2006, September 2006, October 2006, November 2006, December 2006, January 2007, February 2007, March 2007, April 2007, May 2007, June 2007, July 2007, August 2007, September 2007, October 2007, November 2007, December 2007, January 2008, February 2008, March 2008, April 2008, May 2008, June 2008

Avg. Basket

Order Date

Current Year: 50.54K, 50.76K, 46.04K, 39.76K, 46.29K, 33.53K, 35.28K, 39.33K, 35.92K, 40.46K, 51.99K, 33.89K, 50.46K, 50.76K, 43.81K, 41.86K, 40.22K, 46.35K, 31.29K, 31.21K, 29.10K, 25.17K, 40.94K, 35.06K, 32.95K

Last Year: 20.61K, 38.48K, 34.03K, 31.57K, 49.27K, 46.42K, 28.29K, 39.33K, 33.24K, 37.20K, 33.08K, 50.54K, 50.76K, 46.04K, 39.76K, 46.35K, 33.53K, 35.28K, 26.53K, 23.24K, 40.46K, 41.85K, 33.89K
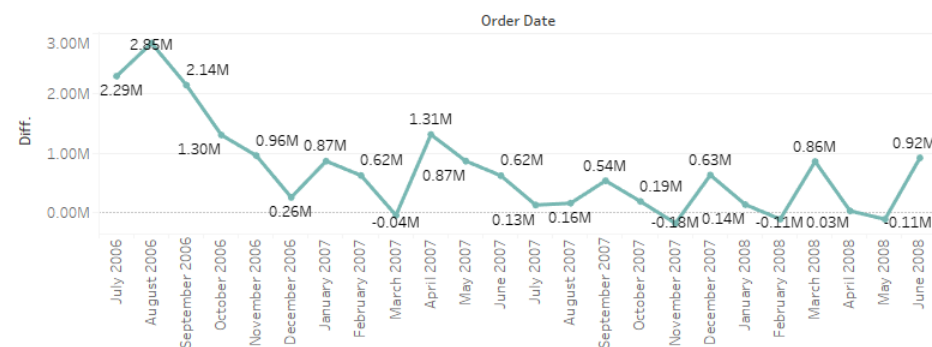
Sales

Sales have strong peaks every few months, but overall slightly bearish trend.
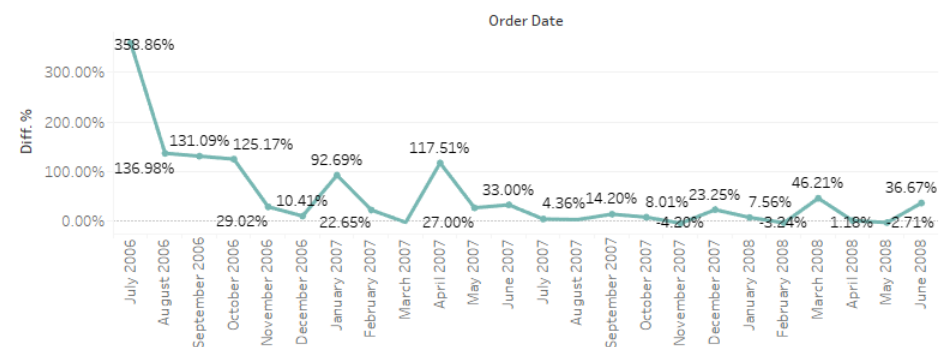
Since this is Absolute analysis, this could lead to the conclusion that newly opened stores are not performing good.

Looking at the % Diff. we can notice that strong peaks are happening in early springs. This brings conclusion that the company enters biking season very strong.
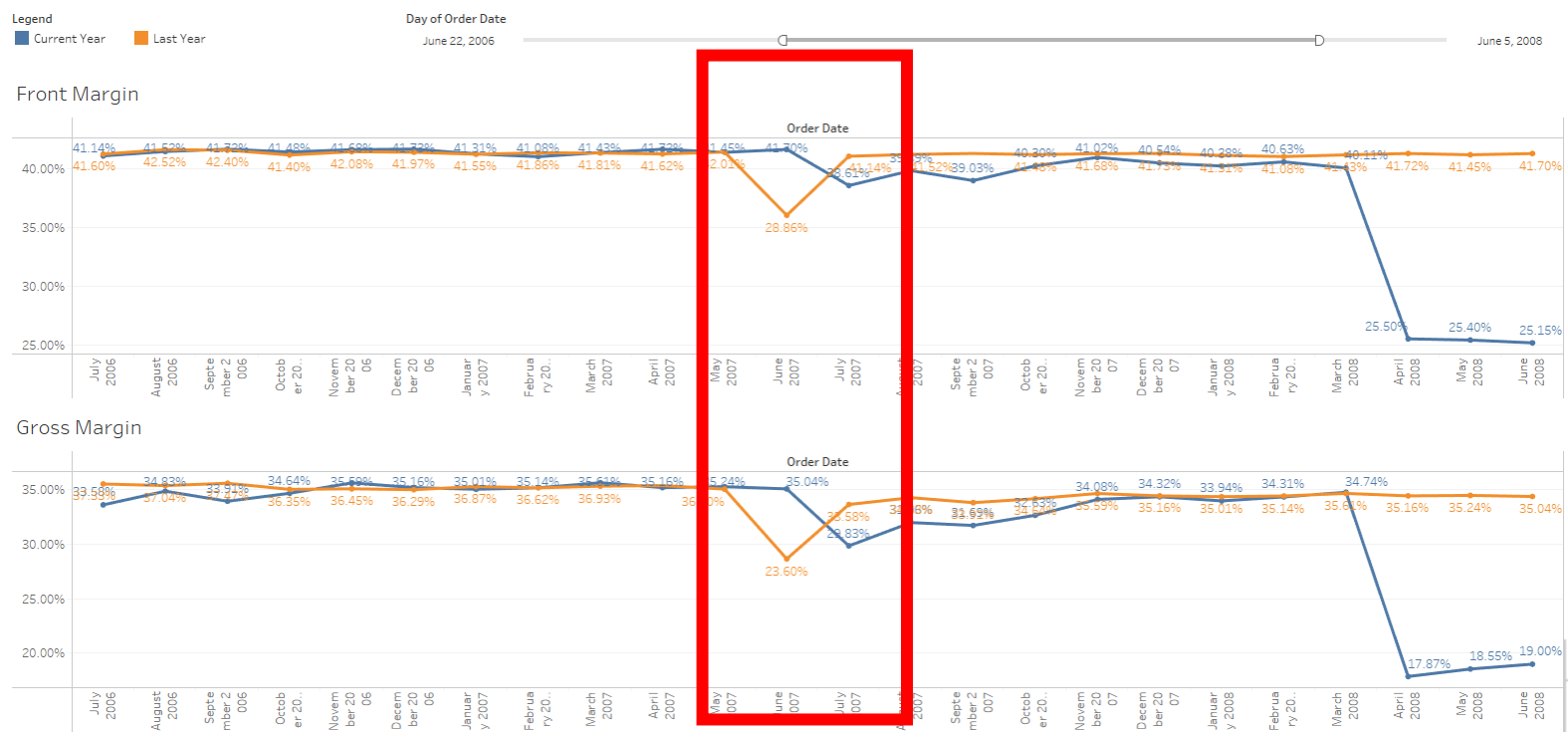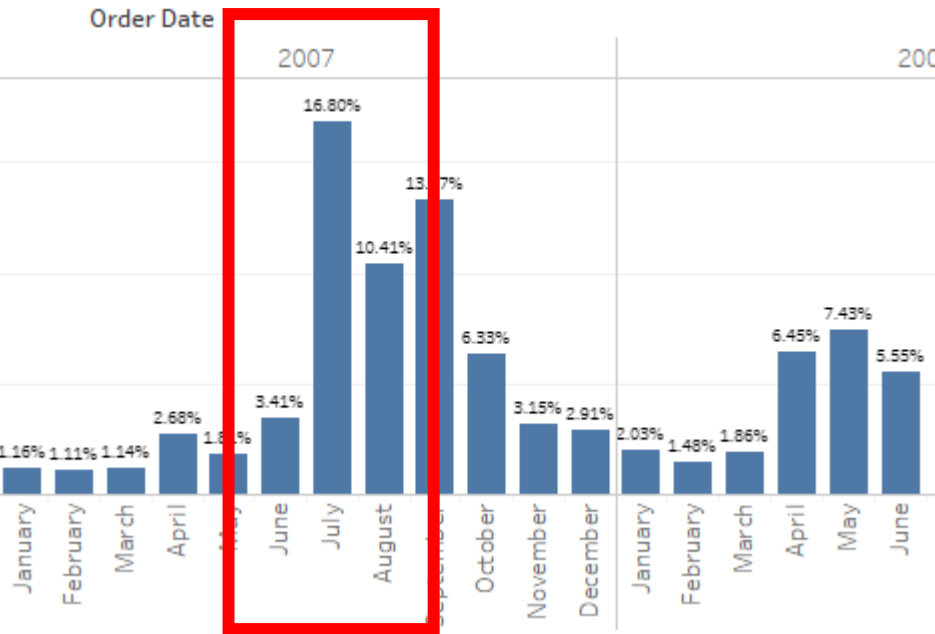
Margins & Promo

As front margin is not impacted by the decline of sales, this leads to conclusion that promo share is not high during this period. Customers did switch to cheaper SKU's.

As FM% drops in June, and Q2 of 2008 this could bring us to the conclusion that promo was high during that period as biking season peaks.
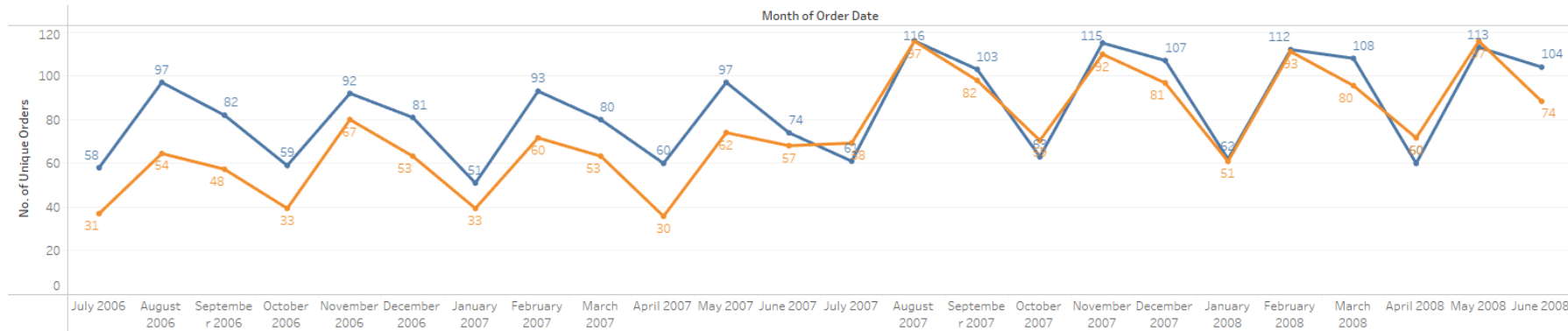
*Promo share per month

Orders

Measure Names
■ No. of Orders CY ■ No. of Orders LY

Abs. Orders

Month of Order Date

No. of Unique Orders

58, 97, 82, 59, 92, 81, 51, 93, 80, 60, 97, 74, 60, 116, 103, 62, 115, 107, 62, 112, 108, 60, 113, 104

31, 54, 48, 33, 67, 53, 33, 60, 53, 30, 62, 57, 58, 97, 82, 92, 81, 51, 93, 80, 74

July 2006 August 2006 September 2006 October 2006 November 2006 December 2006 January 2007 February 2007 March 2007 April 2007 May 2007 June 2007 July 2007 August 2007 September 2007 October 2007 November 2007 December 2007 January 2008 February 2008 March 2008 April 2008 May 2008 June 2008

Orders Diff.

Month of Order Date

Order Number Diff.

31, 27, 43, 34, 26, 25, 28, 18, 33, 27, 30, 35, 17, 3, 19, 21, 4, 23, 26, 11, 19, 28, 0, 16, 30

July 2005 July 2006 August 2006 September... October 2006 November 2... December 2... January 2007 February 20... March 2007 April 2007 May 2007 June 2007 July 2007 August 2007 September... October 2007 November 2... December 2... January 2008 February 20... March 2008 April 2008 May 2008 June 2008

Orders Diff. %

Month of Order Date

Order Number Diff. %

0.00%, 87.10%, 79.63%, 70.83%, 78.79%, 37.31%, 52.83%, 54.55%, 55.00%, 50.94%, 100.00%, 56.45%, 29.82%, 5.17%, 19.59%, 25.61%, 6.78%, 32.10%, 25.00%, 21.57%, 20.43%, 35.00%, 0.00%, 16.49%, 40.54%

July 2005 July 2006 August 2006 September... October 2006 November 2... December 2... January 2007 February 20... March 2007 April 2007 May 2007 June 2007 July 2007 August 2007 September... October 2007 November 2... December 2... January 2008 February 20... March 2008 April 2008 May 2008 June 2008
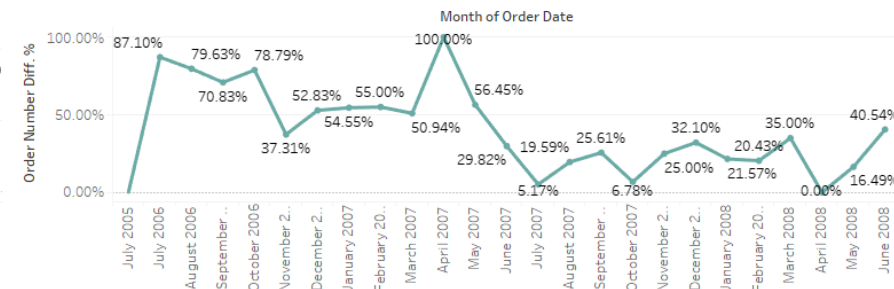
As mentioned earlier, number of orders goes against sales and is recording slow growth in trend.

Compared to the previous year, it is performing really well which means that we are raking in new or bringing existing customers back more often.
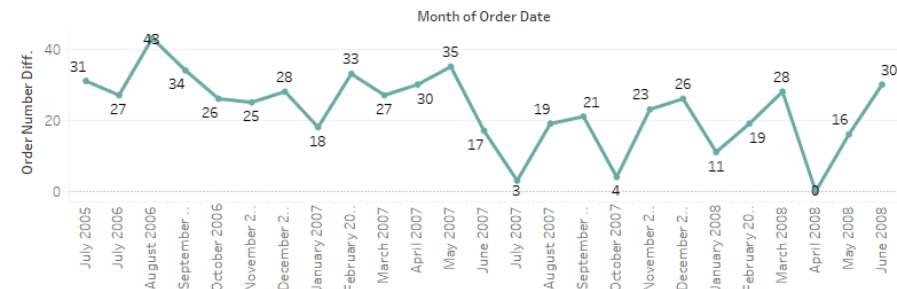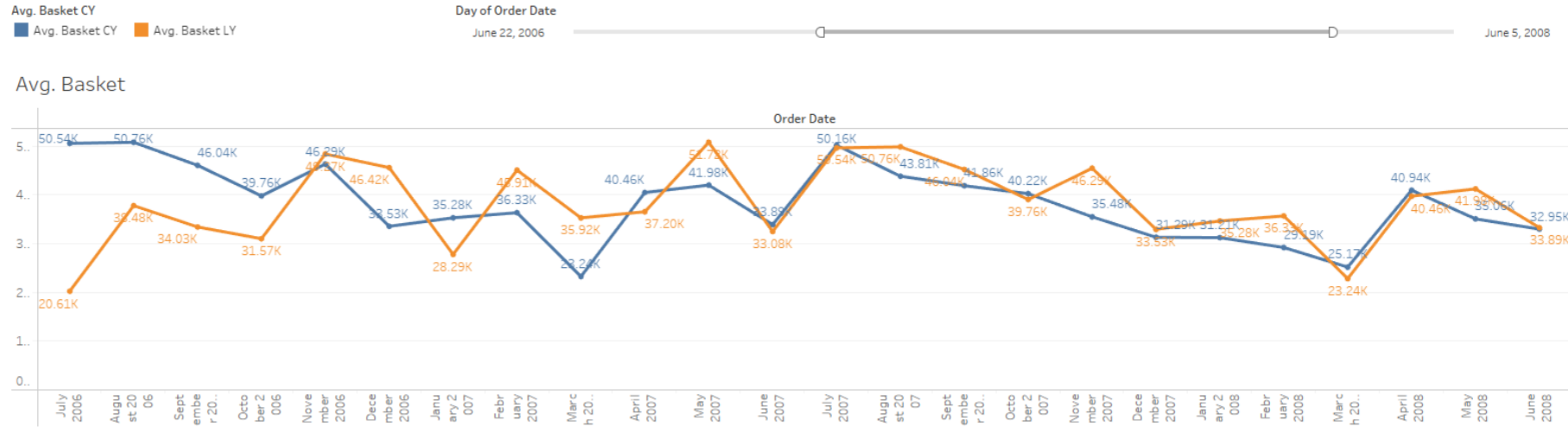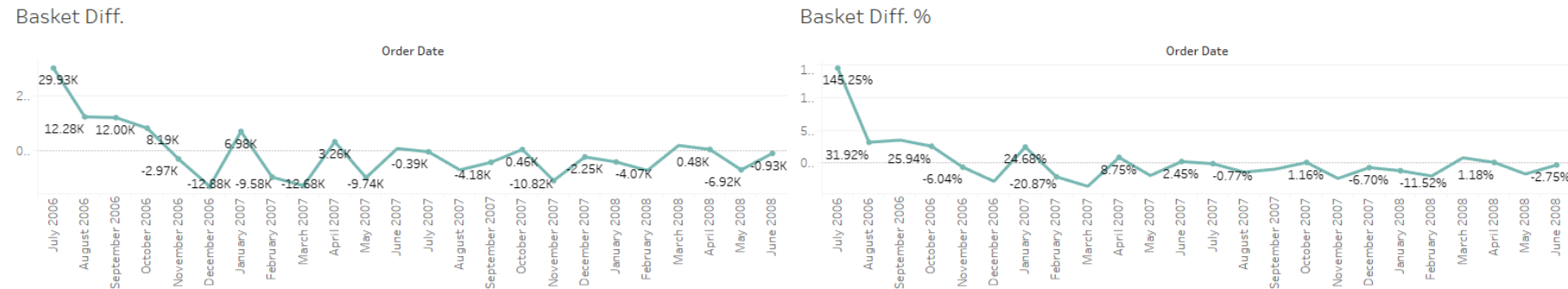
Basket

Basket is direct result of sales and orders.

As sales started declining in July of 2007 we can see how big of an impact it had on basket.

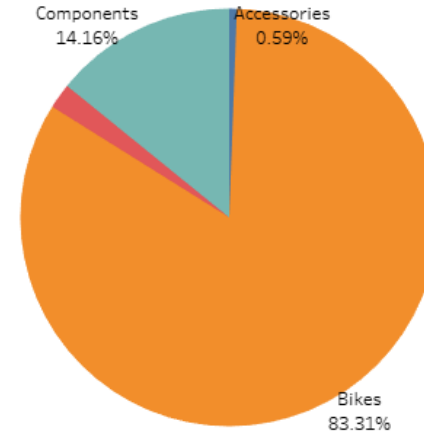To battle this, customers should be stimulated to buy more expensive items.

Category Overview

Sales per Category (Drill)

Year of Ord..	Product Cat..	Category D..	Current ..	Last Year	Category S..	Category S..
2005	Bikes	Bikes	10,203,886			
	Components	Components	877,451			
	Clothing	Clothing	45,838			
	Accessories	Accessories	26,165			
2006	Bikes	Bikes	27,280,807	10,203,886	17,076,921	167.36%
	Components	Components	4,776,477	877,451	3,899,026	444.36%
	Clothing	Clothing	580,318	45,838	534,480	1166.02%
	Accessories	Accessories	114,288	26,165	88,123	336.80%
2007	Bikes	Bikes	30,902,379	27,280,807	3,621,572	13.28%
	Components	Components	6,316,265	4,776,477	1,539,788	32.24%
	Clothing	Clothing	941,270	580,318	360,953	62.20%
	Accessories	Accessories	298,301	114,288	184,013	161.01%
2008	Bikes	Bikes	15,027,857	30,902,379	-15,874,522	-51.37%
	Components	Components	2,204,475	6,316,265	-4,111,790	-65.10%

Category Share

Components 14.16%
Accessories 0.59%
Bikes 83.31%

Top Selling Categories

Product Sub C..	Current Year	Front Margin %
Road Bikes	38,087,640	35.88%
Mountain B..	35,267,906	42.97%
Touring Bik..	10,059,384	31.95%
Mountain F..	5,984,743	44.08%
Road Frames	4,828,992	39.27%
Touring Fra..	1,491,128	36.06%
Wheels	843,178	55.58%
Jerseys	603,393	19.68%
Shorts	397,473	58.98%
Helmets	285,559	60.97%

Low Selling Categories

Product Sub Category	Current Year	Front Margin %
Saddles	57,965	52.90%
Bottom Brackets	54,305	52.73%
Caps	33,999	20.47%
Socks	33,283	60.87%
Locks	18,406	58.71%
Pumps	15,537	58.71%
Cleaners	10,993	59.80%
Chains	10,354	53.17%
Bottles and Cages	7,308	59.66%
Tires and Tubes	925	60.33%

Top Performing Categories

Product Sub Categ..	FrontMargin CY	Front Margin %
Gloves	141,830	58.76%
Shorts	234,432	58.98%
Bike Racks	114,083	59.66%
Bottles and Ca..	4,360	59.66%
Vests	127,213	59.68%
Cleaners	6,574	59.80%
Hydration Packs	35,597	59.98%
Tires and Tubes	558	60.33%
Socks	20,258	60.87%
Helmets	174,120	60.97%

Low Performing Categories

Product Sub Category	FrontMargin CY	Front Margin %
Jerseys	118,729	19.68%
Caps	6,959	20.47%
Touring Bikes	3,213,750	31.95%
Road Bikes	13,664,110	35.88%
Touring Frames	537,658	36.06%
Road Frames	1,896,441	39.27%
Mountain Bikes	15,153,139	42.97%
Mountain Frames	2,638,163	44.08%
Derailleurs	37,726	52.65%
Pedals	89,916	52.73%

Looking into categories we can see that majority of our sales are generated by **Bikes** category.

By analyzing margins, we can notice that there are no real low performing categories (only 6 with FM% under 40%).

A lot of top selling categories are "Low Performing" and vice versa. Categorizing SKU's by KVI would bring great benefit for further developing pricing strategy.
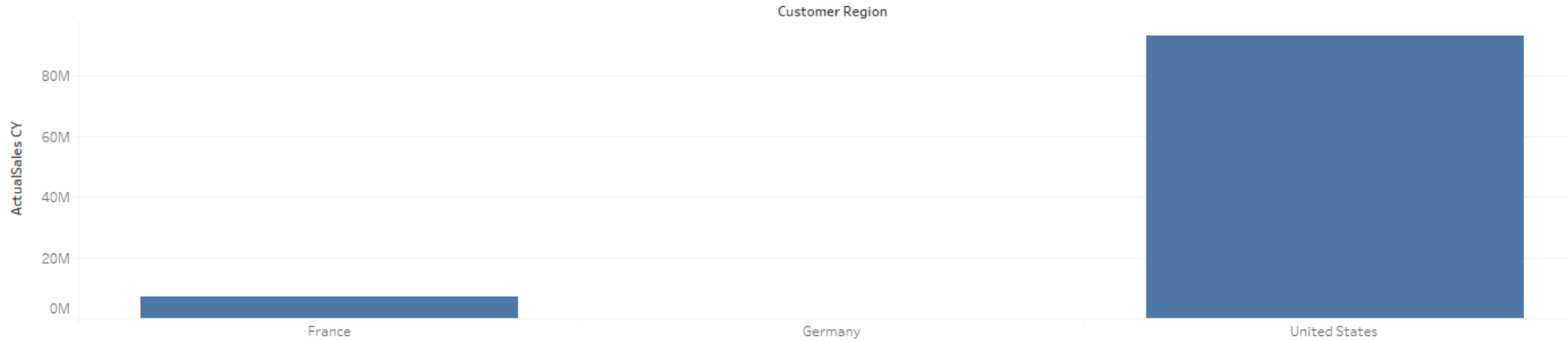
Promo Share

Promo share shows strong seasonality trends. Other than that, not much can be concluded from this.
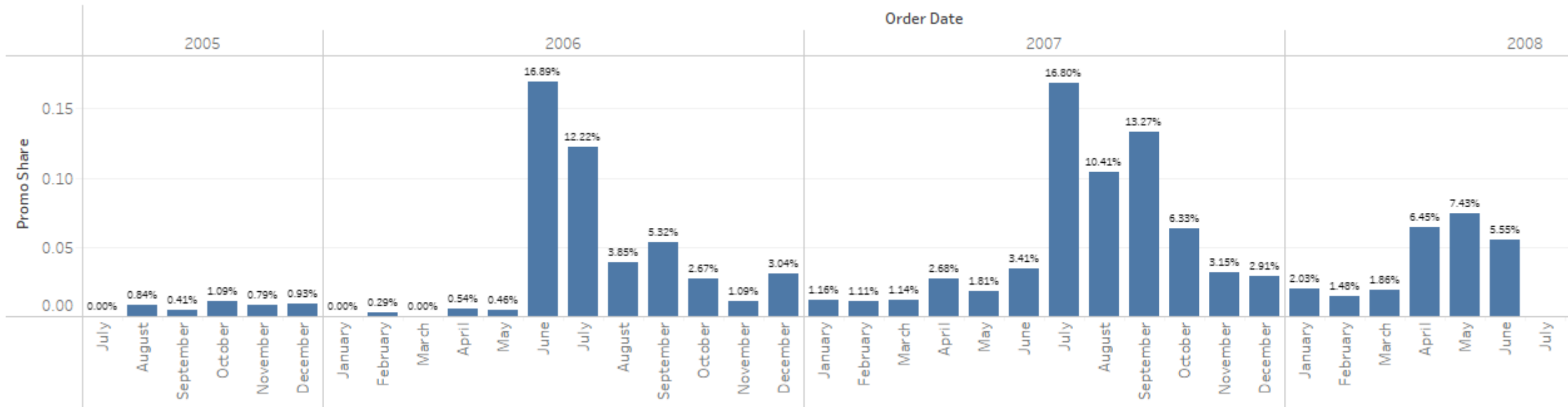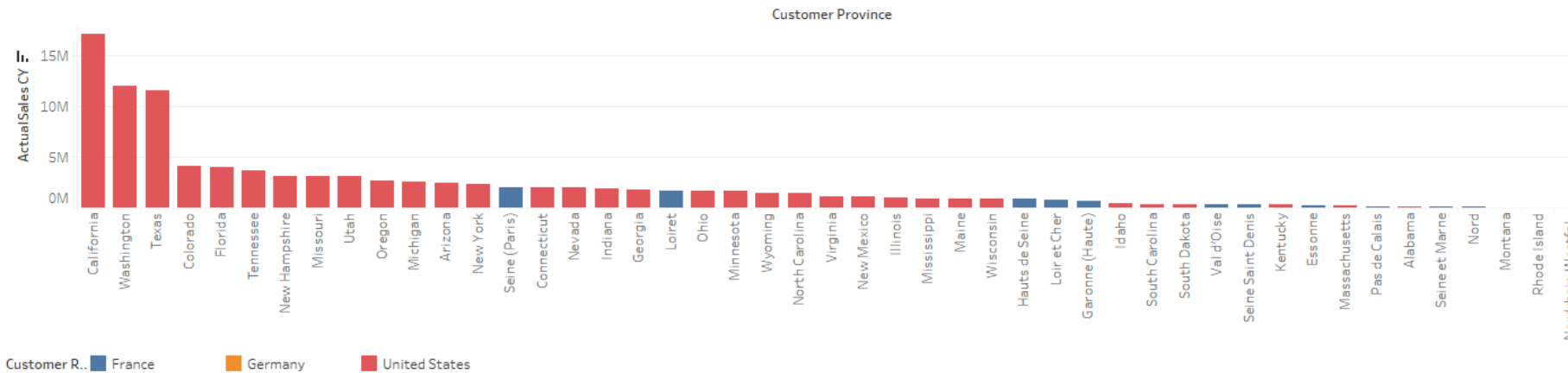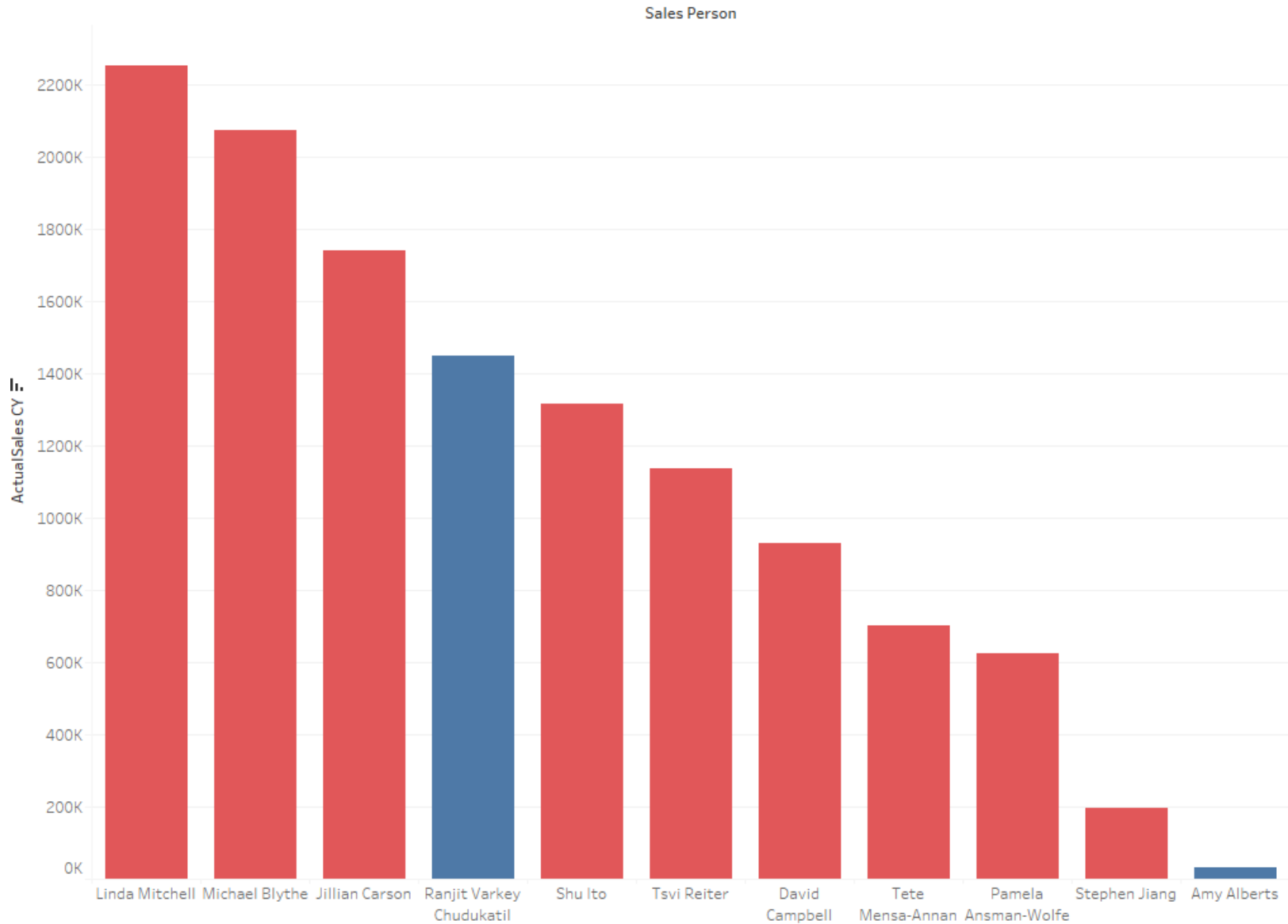
Sales by Location

Sales by Region

Sales by State

Most of the sales are generated in the USA.

Top selling Regions are California, Washington and Texas.

Conclusion

- Sales are in a bad position even though number of orders is growing.

- With this high margins, promo share could be increased to stimulate sales growth. This would eat up margin but increased sales would cover it up.

- Categorizing SKU's into KVI groups (Key Value Item) would enable better pricing.
    - Research the competition
    - Lower margins on top selling SKU's and increase on low selling
    - This will give consumers perception of a cheaper bike shop and lead to increased sales.

- Promo share is healthy.

- Since high volumes are sold, make a deal with shipping companies to achieve rebates on shipping and generate more profit.