

Introduction

Digital Marketing is one of the prevalent marketing strategies in current years. Here I have tried to analyse the given data channel performance with respect to the given marketing KPIS (key performance indicator). Among the most required metrics are AOV(Average Order Value), Conversion Rate(CR), CPA(cost per action or acquisition), and I take channel and Date as a dimension for analysing the performance.



(PERFORMANCE DASHBOARD 2016)

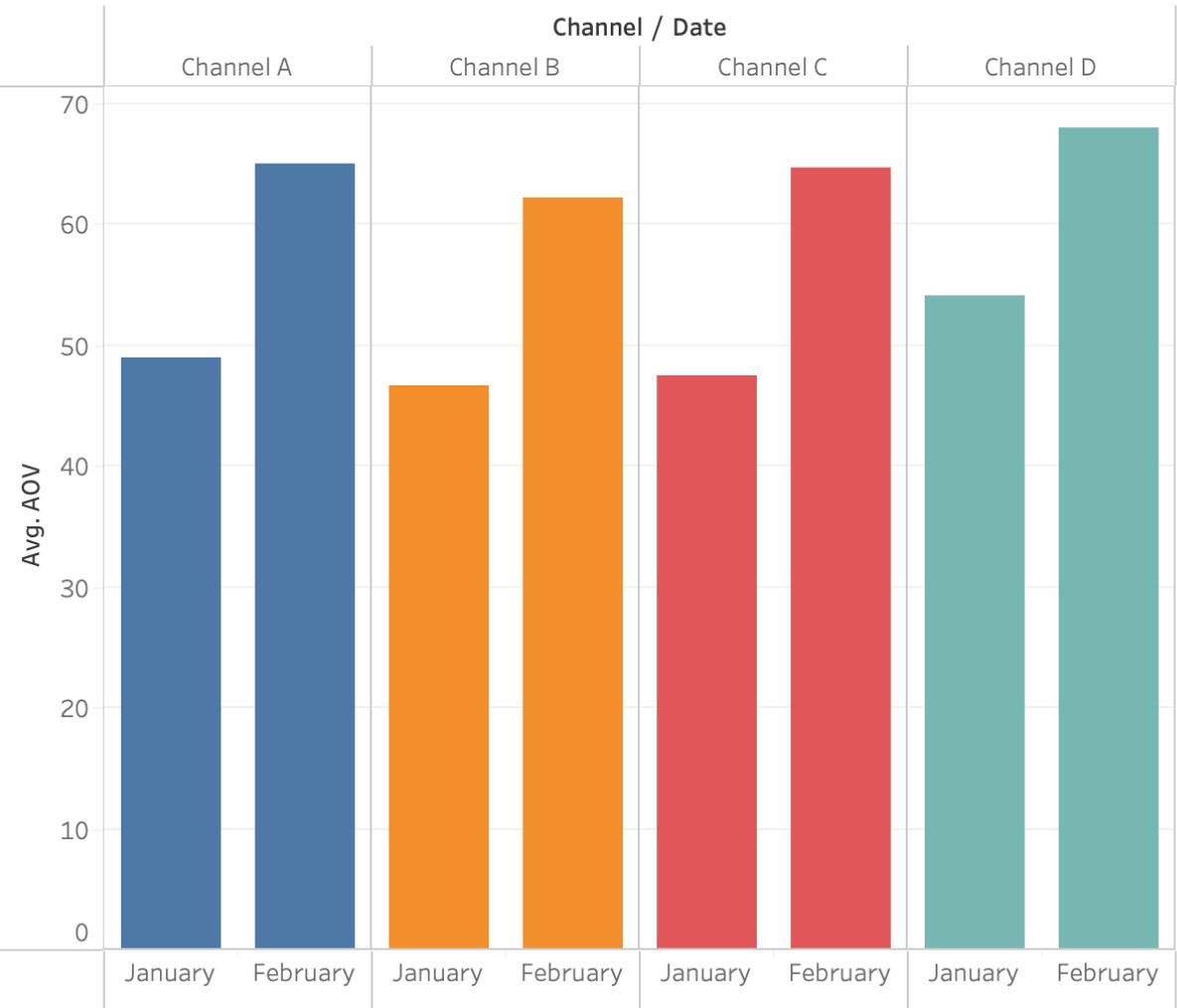


(PERFORMANCE DASHBOARD 2017)

- Analysis of the historical performance of the company and its marketing efforts

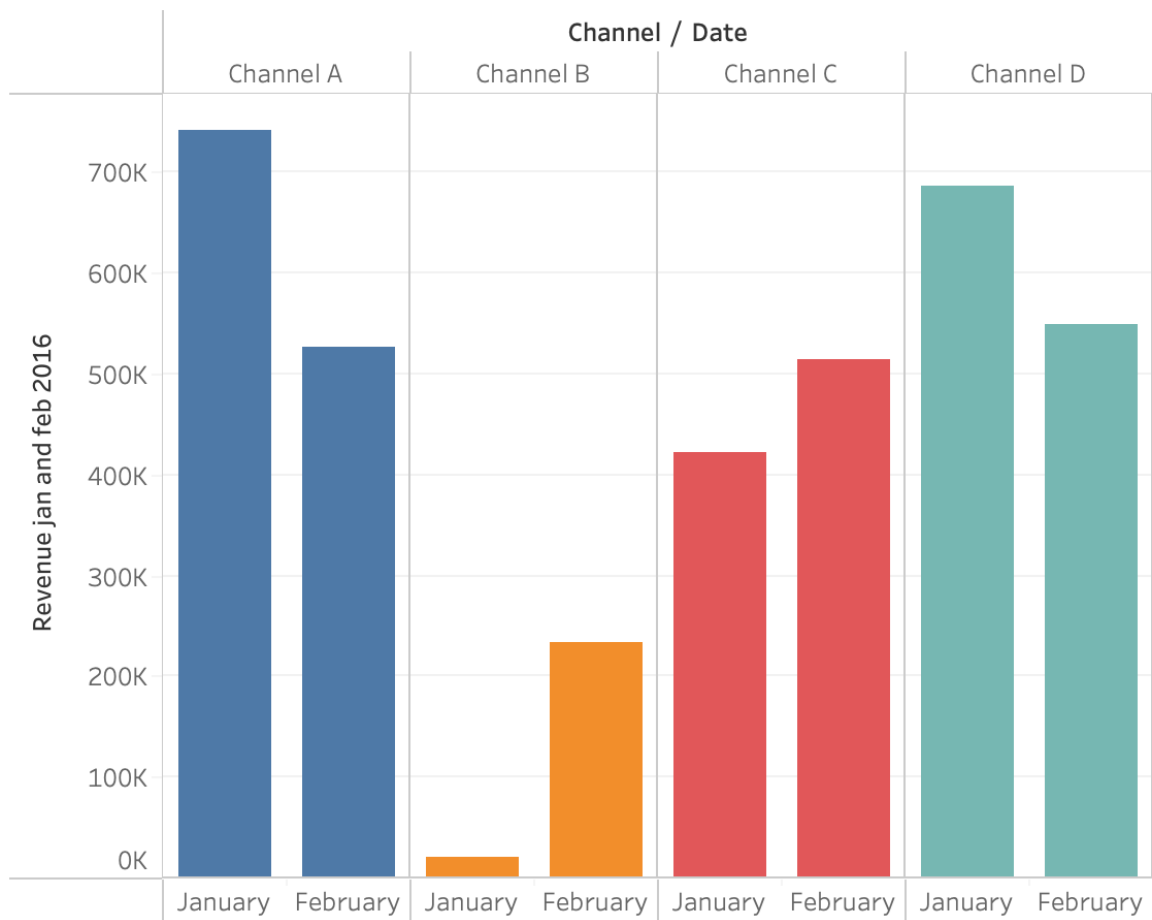
1. So from the given data first I tried to analyse the (KPI) AOV for Jan and Feb, 2016, where I see that Channel A and D is performing well. Compared to January, February has better performance, in the following bar graph. Here I apply a month filter On date column.

AOV W.R.T CHANNEL AND MONTHS



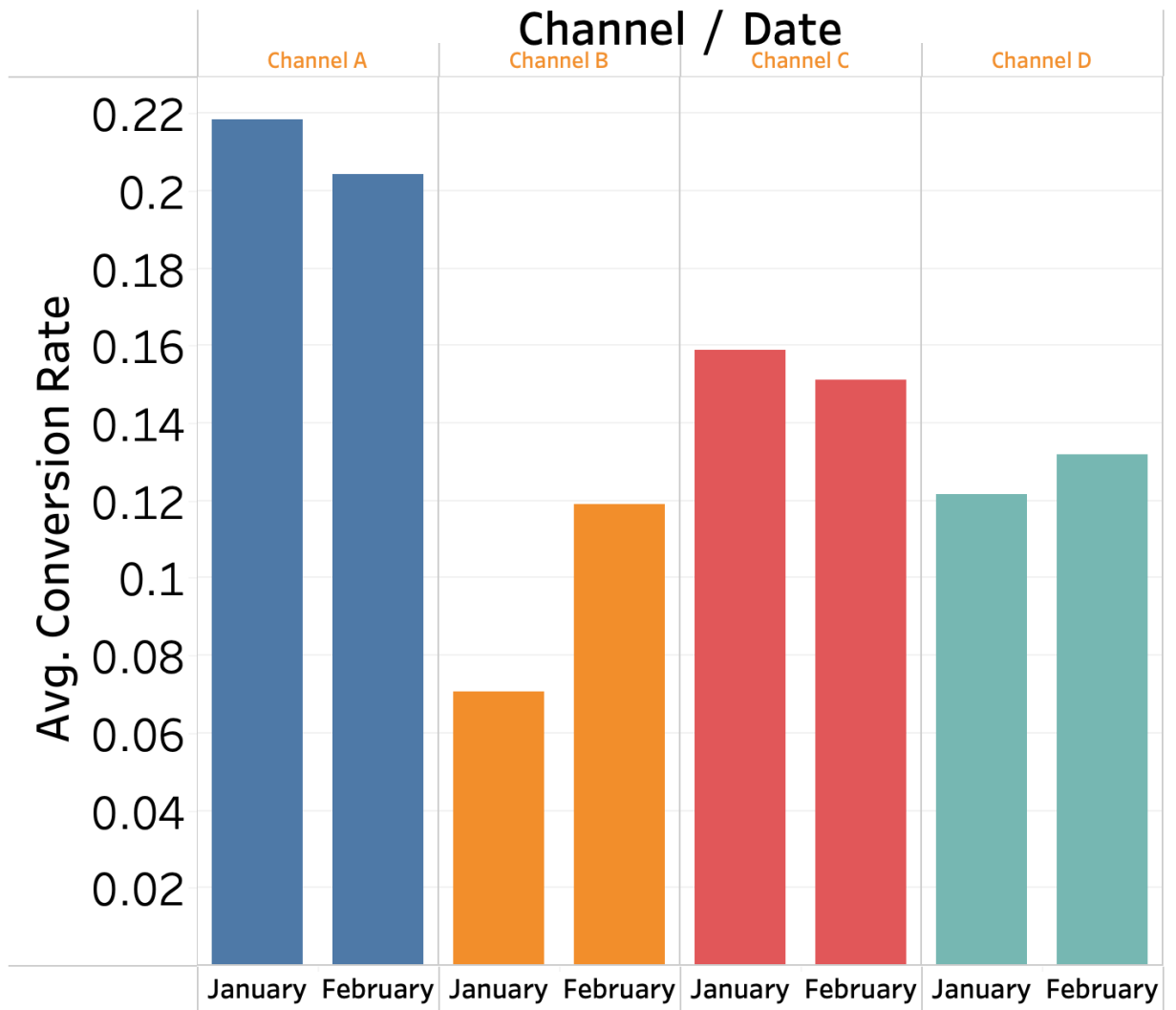
SO here also Channel D and Channel A are performing well w.r.t revenue.

REVENUE W.R.T CHANNEL AND MONTH(JAN AND FEB)

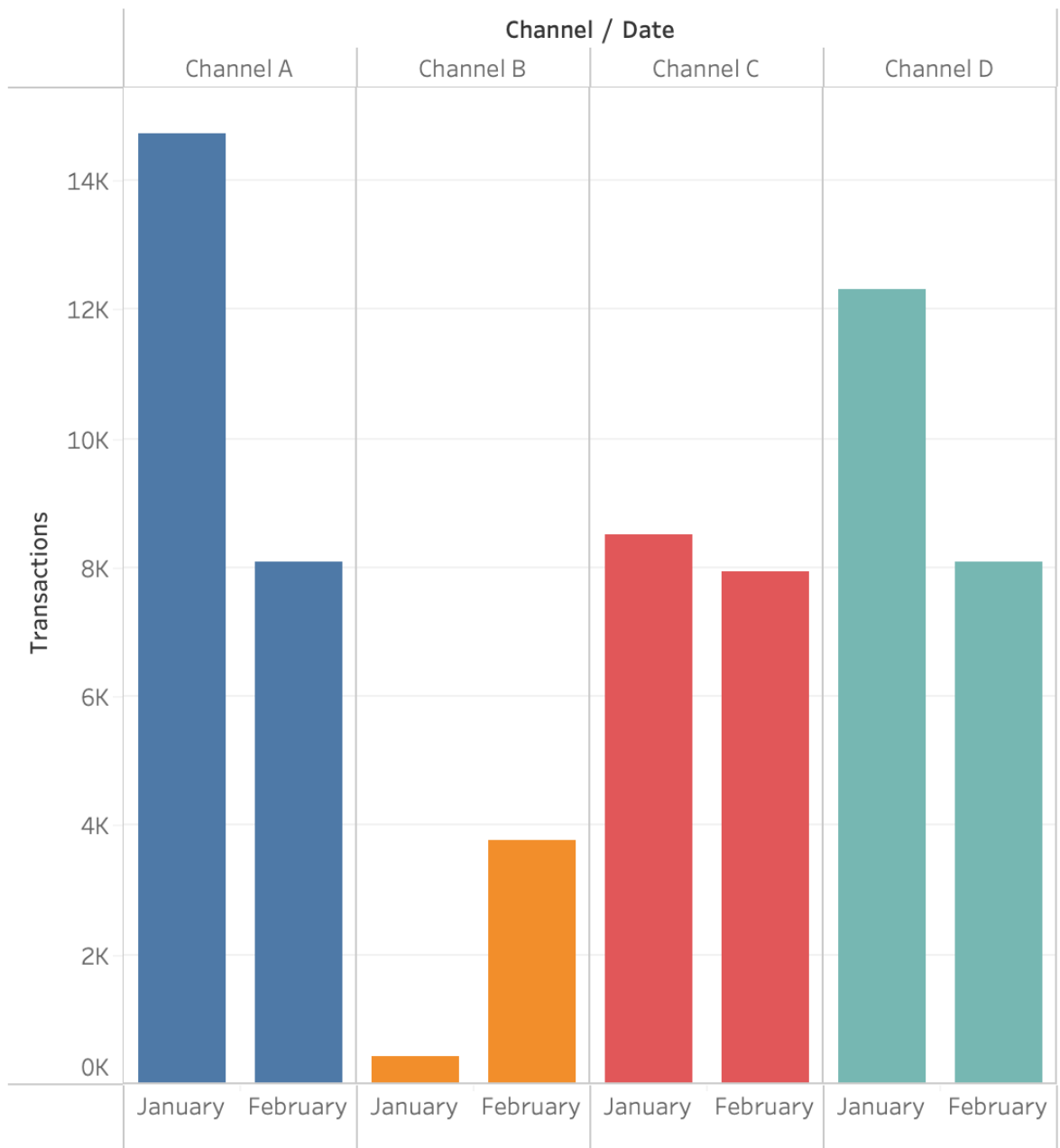


In the following bar graph we can see that the conversion rate is also better for Channel A and D and also It's good for C.

channel vs conversion rate(YEAR 2016)

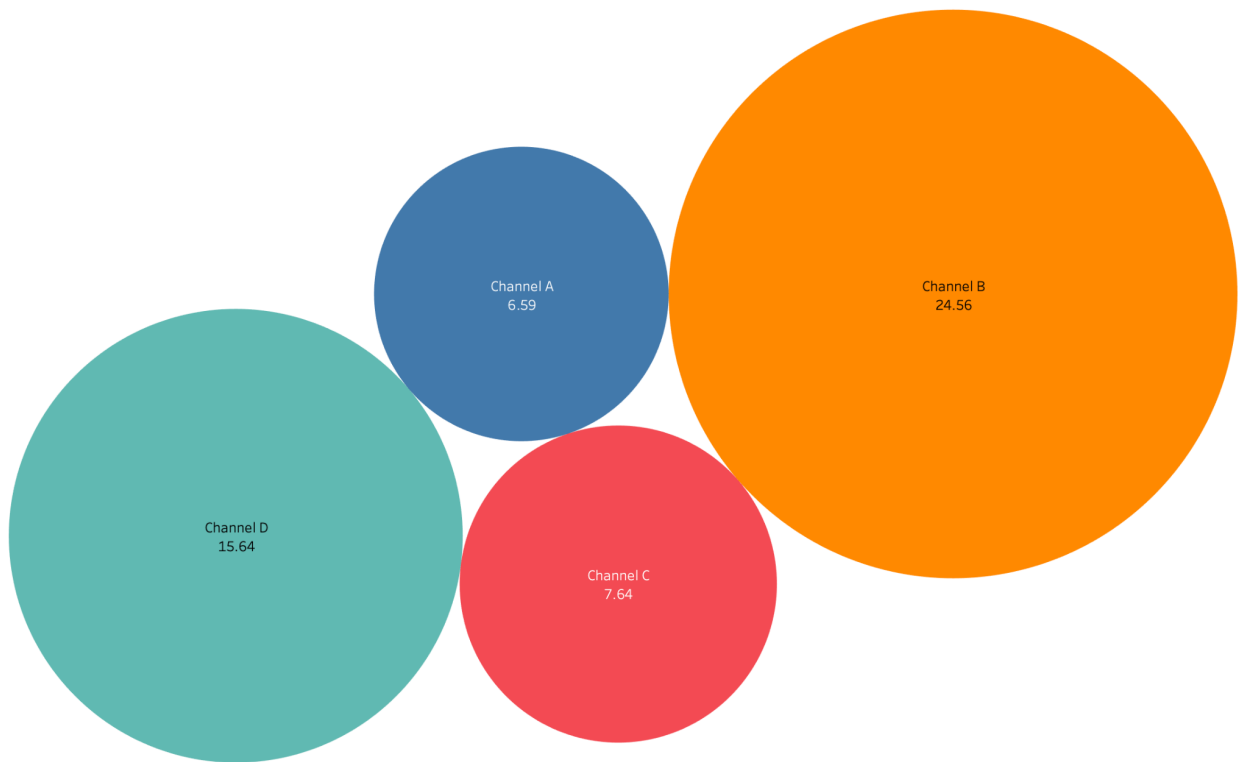


Transaction W.R.T. Channel



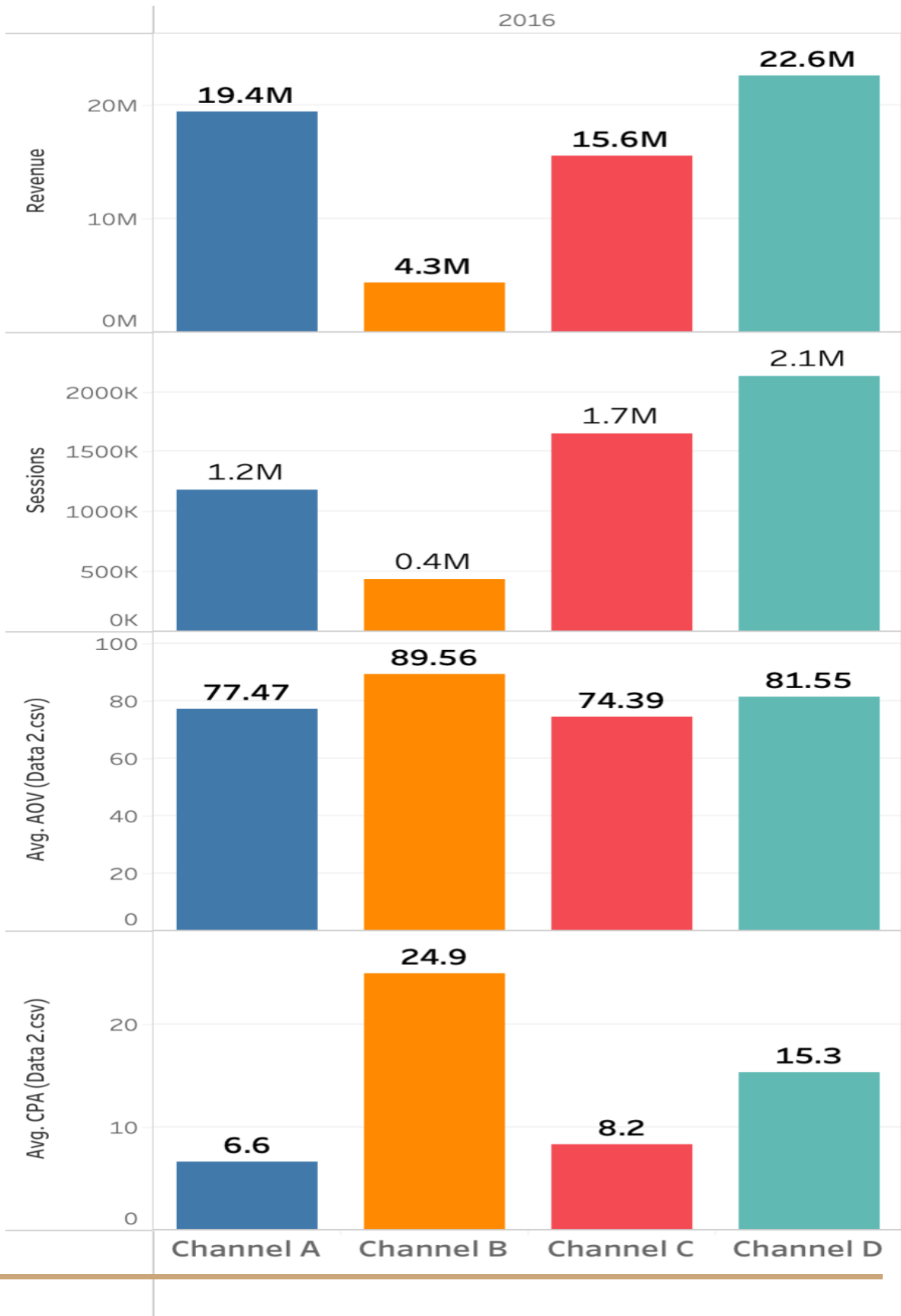
Now In Our following Graph, We have one of the most important KPI which will make it easier for analysing the channel performance. That cost per acquisition is really high for channel B, but we can see from the above graph that B performance is not that pleasing w.r.t. Other metrics, and channel D , although we have more CPA than A and C , But it's performance is not so impressive.

CPA VS CHANNEL 2016(Jan and Feb)

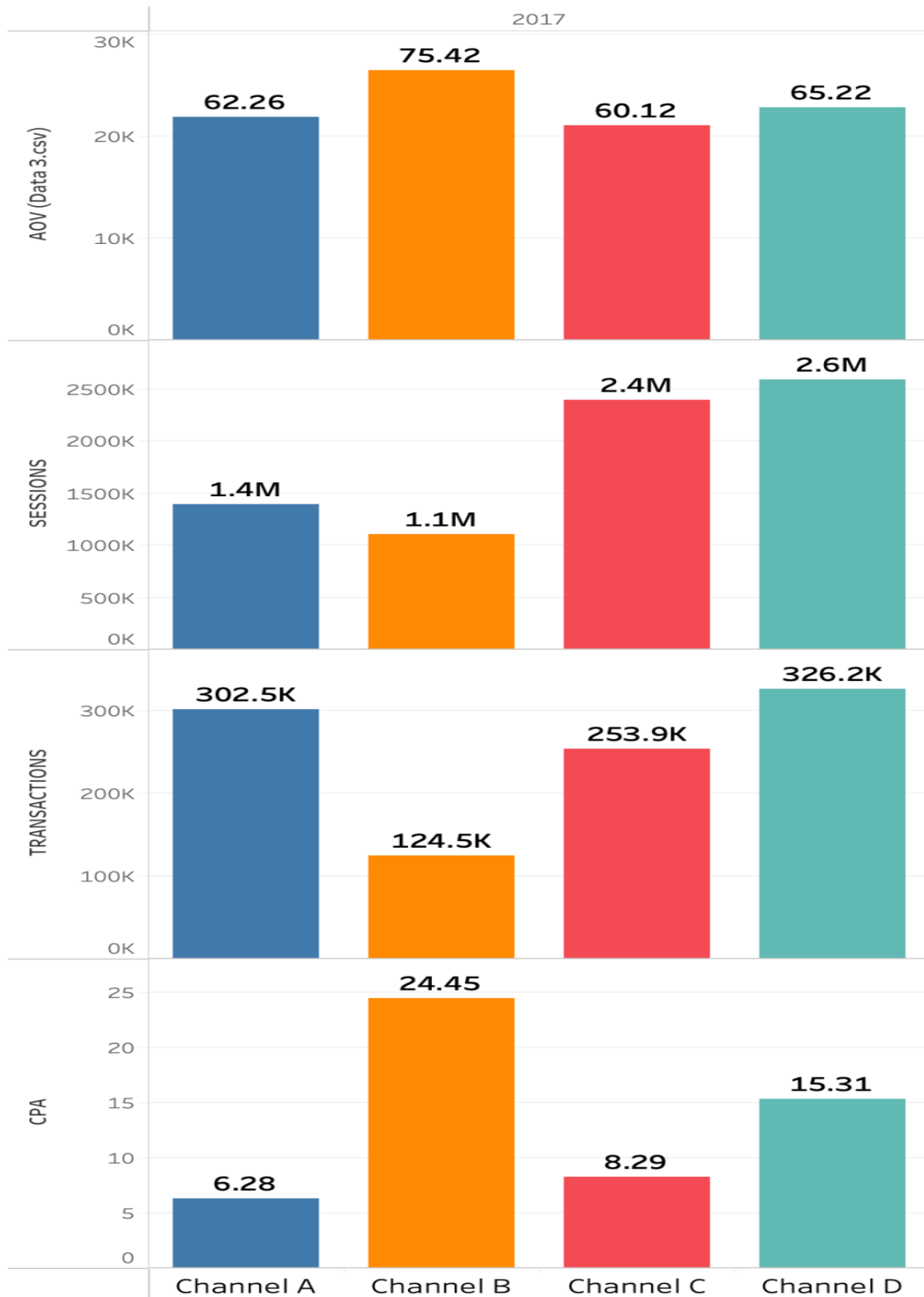


Now we will also Visualise the 2016 and 2017 performance together

PERFORMANCE ANALYSIS 2016



PERFORMANCE ANALYSIS (2017)



Here in both the 2016 and 2017 performance graph we can see that CPA of channel A is low but still it is performing well, so In the long run if the business will be invested on **Channel A's CPA** it will give more profit margin. Overall The company marketing effort is really good, although the CPA is 24.45 for channel B which is the highest but still maintaining AOV as 75.42 in 2017 means still it has a high profit margin. But 2016 was better, if we look at the AOV of 2017. So Year wise 2016 is better with the highest profit margin because AOV for all channels has crossed above 70 but in 2017 it has crossed above 60. Less difference but still it matters. Also the CPA is almost the same for both years, But AOV is different.

- **Recommendation of which channel(s) the company should focus on in the next year (2018)?**

So from the analysis, we can see that although channel D has highest AOV, but the CPA cost is also high which leads us to less profit, if we will compare our performance with CHANNEL A, as it has lowest CPA and at the same time it is showing good outcomes for revenue, transaction and AOV, so if the company invest for CHANNEL A. There will be a greater profit for the company.

If we divide, (AOV-CPA) we can see that the value with the highest result has better performance.

We can see from the circle graph that In 2016 CPA is very high for channel B and D and Lowest for Channel A. But still Channel A is performing well. So If we will Invest more for channel A, the revenue and AOV will be more than last years.

So we can also see from our bar graph that also for 2017 the CPA is lowest for channel A, and still it's performing well, Therefore, the company should focus on Channel A .

Cost and Revenue forecast for the entire company (all channels combined) by day for the two weeks leading up to Valentine's Day 2018?

REVENUE(SALES) = AOV*NO OF TRANSACTIONS

COST = CPA * NO OF TRANSACTIONS

Valentine's Day YOY Comparison 2016 Vs 2017

Sales (Revenue)increased 73.99% and cost increased 100.55%

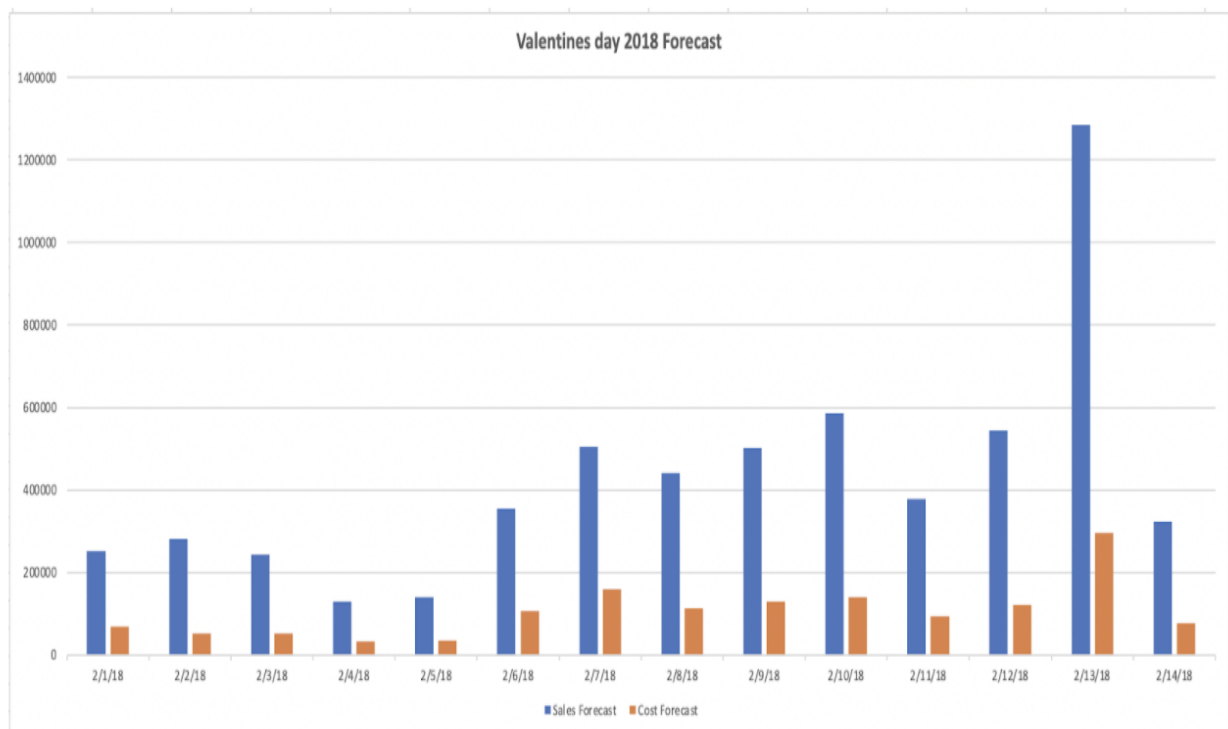
2016 Valentines day	Sales	Cost	2017 Valentines day	Sales	Cost
2/1/16	198404.81	27220	2/1/17	341892.93	69142
2/2/16	199517.36	35191	2/2/17	379450.66	51930
2/3/16	219170.4	32676	2/3/17	330376.8	52869
2/4/16	293669.29	49295	2/4/17	177244.09	33026
2/5/16	230772.53	45603	2/5/17	189780.52	34914
2/6/16	126018.6	23570	2/6/17	478821.9	106994
2/7/16	141428.42	24529	2/7/17	682045.2	158435
2/8/16	416175.53	70657	2/8/17	596109.64	111886
	1825156.94	308741		3175721.74	619196
			% Increase YOY	73.99718733	100.5551579

Sales forecast 2018

Added same upside expected increase in sales and cost of 73.99% and 100.55% respectively

Date	Sales	Cost		Forecast Date	Sales Forecast	Cost Forecast
2/1/17	341892.93	69142		2/1/18	252966.5789	69522.281
2/2/17	379450.66	51930		2/2/18	280755.5433	52215.615
2/3/17	330376.8	52869		2/3/18	244445.7943	53159.7795
2/4/17	177244.09	33026		2/4/18	131142.9022	33207.643
2/5/17	189780.52	34914		2/5/18	140418.6067	35106.027
2/6/17	478821.9	106994		2/6/18	354280.3238	107582.467
2/7/17	682045.2	158435		2/7/18	504645.2435	159306.3925
2/8/17	596109.64	111886		2/8/18	441061.5226	112501.373
2/9/17	680180.83	129327		2/9/18	503265.7961	130038.2985
2/10/17	791604.12	139022		2/10/18	585707.8884	139786.621
2/11/17	511198.14	94397		2/11/18	378235.5038	94916.1835
2/12/17	737184.12	121160		2/12/18	545442.5304	121826.38
2/13/17	1737552.2	295410		2/13/18	1285614.873	297034.755
2/14/17	436981.05	78173		2/14/18	323322.2789	78602.9515

Sales Forecast 2018 as bar graph



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- **Explanation of any assumptions you make, potential risks to your recommendations/analysis, and additional data you would want to look at to improve the accuracy of your analysis/recommendations?**

So In my analysis there is certain risk, for that reason I think we need more accurate metrics although we had, for better accuracy we need like CTR(click through rate on ad),However for our goals, we had the right KPI, or CPM(cost per mile), it will help to analyse more accurately if we will get the expenditure and revenue, as we know when revenue > cpa we are in profit. And also BOUNCE RATE(how many people are coming and leaving the site without any checkout activity, which could help us to visualise a more accurate way.

CONCLUSIONS:

Overall the Marketing Channel performance Data was intuitive, but we can do much better with proper analysis.