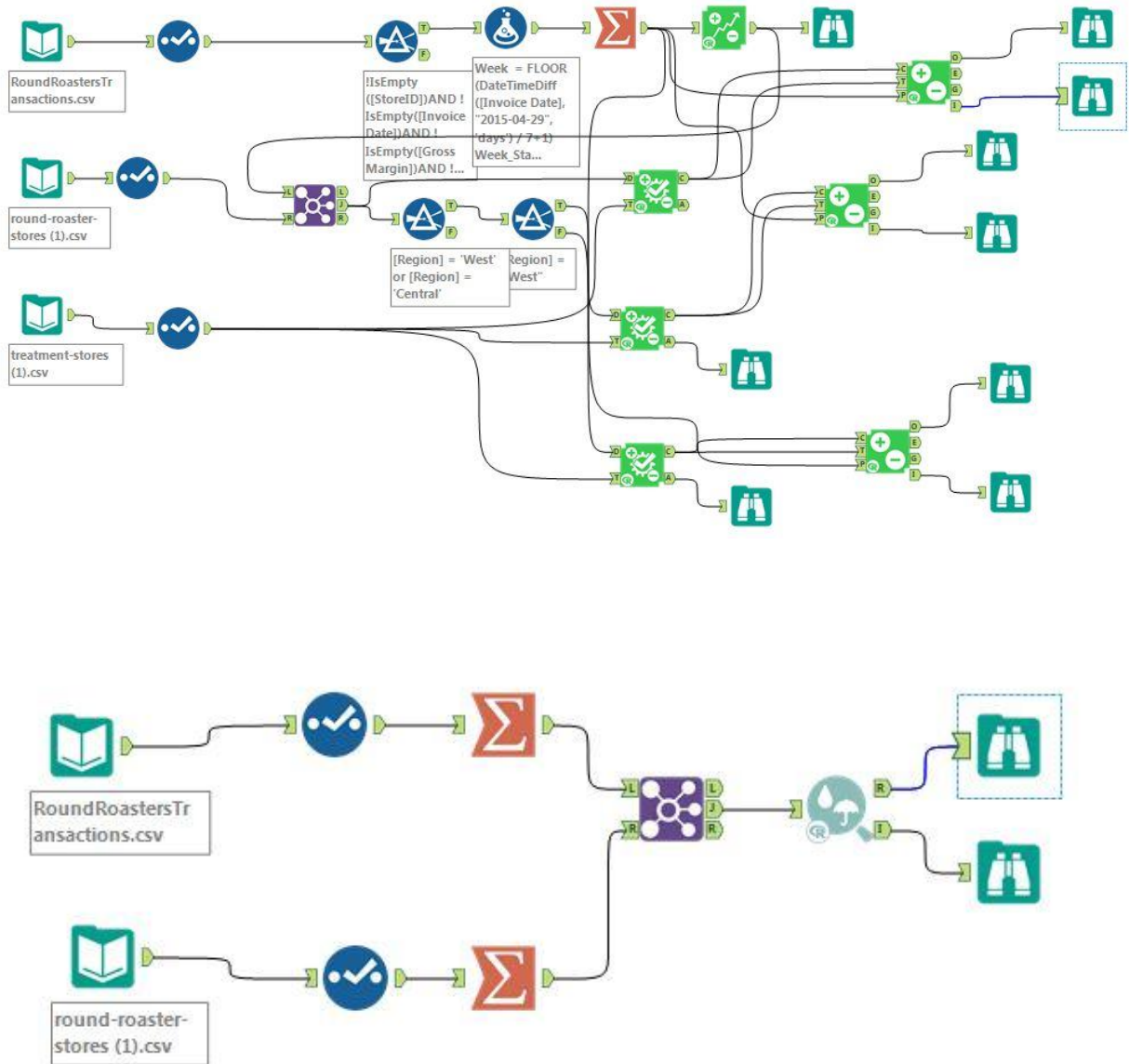


Predict Impact of new menu

Alteryx workflows used for the project:-



Q1. What is the performance metric you'll use to evaluate the results of your test?

Ans1. 'Gross Margin' is used as a performance metric for the evaluation of the results.

Q2. What is the test period?

Ans 2. The test period is of 12 weeks from 2016-April-29 to 2016-July-21.

Q3. At what level (day, week, month, etc.) should the data be aggregated?

Ans 3. The data needs to be aggregated at a weekly level.

Control variables importance:-

The control variables used for matching control and treatment groups were 'Average Monthly Sales', 'Trend' and 'Seasonality'. The average monthly sale is an indicator of similar performing stores and hence is important. It has high positive correlation with 'gross margin'. The 'SqFt' variable was excluded as it has negative correlation. (The correlation matrix has been attached below). 'Trend' and 'Seasonality' variables were obtained from 'AB Trend' tool and depict seasonal patterns.

Full Correlation Matrix

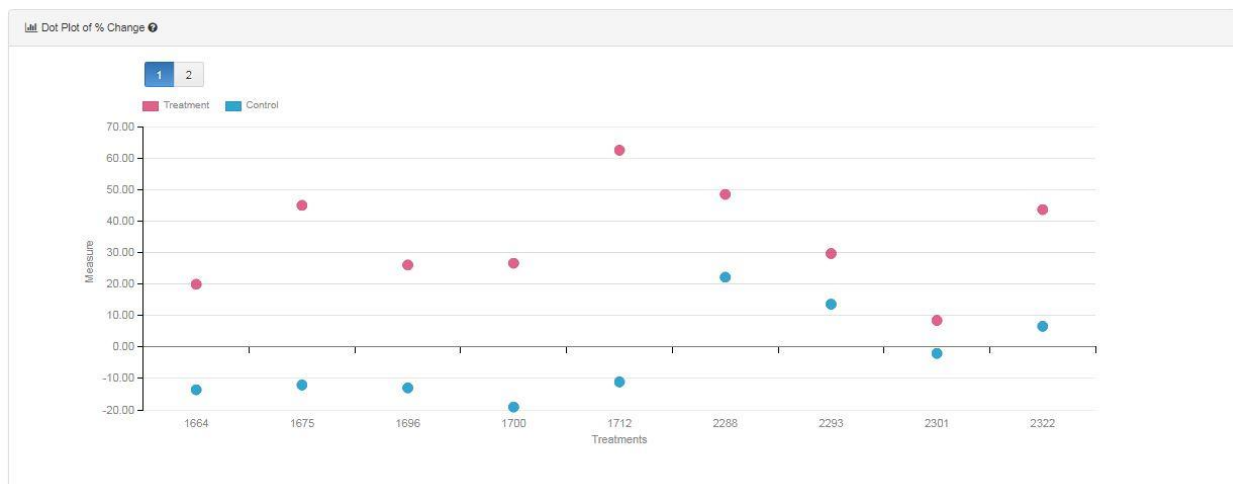
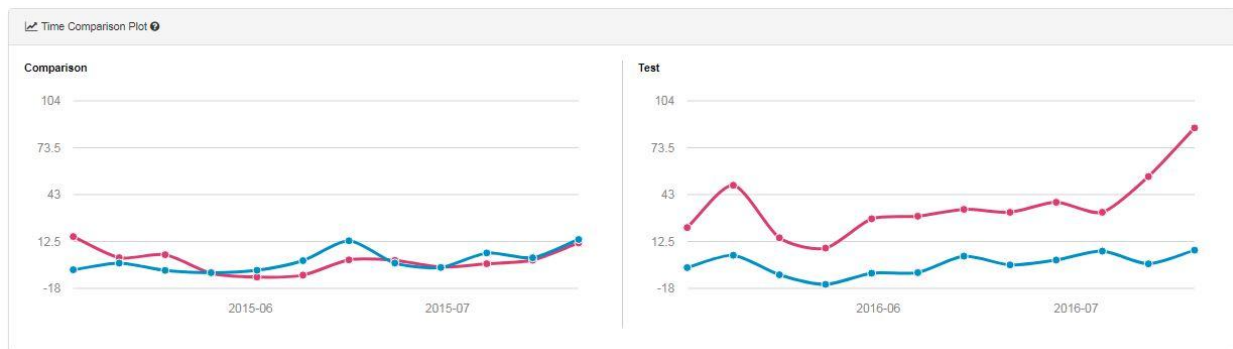
	Sum_Gross.Margin	Sum_AvgMonthSales	Sum_Sq_Ft
Sum_Gross.Margin	1.000000	0.988219	-0.020353
Sum_AvgMonthSales	0.988219	1.000000	-0.046967
Sum_Sq_Ft	-0.020353	-0.046967	1.000000

Control and treatment groups match table:-

Record #	Controls	Treatments
1	11668	1664
2	7162	1664
3	9968	1675
4	11818	1675
5	12169	1696
6	1863	1696
7	7037	1700
8	2902	1700
9	8162	1712
10	10018	1712
11	2568	2288
12	1580	2288
13	12219	2293
14	9639	2293
15	1964	2301
16	12019	2301
17	1857	2322
18	2409	2322
19	3102	2341
20	2572	2341

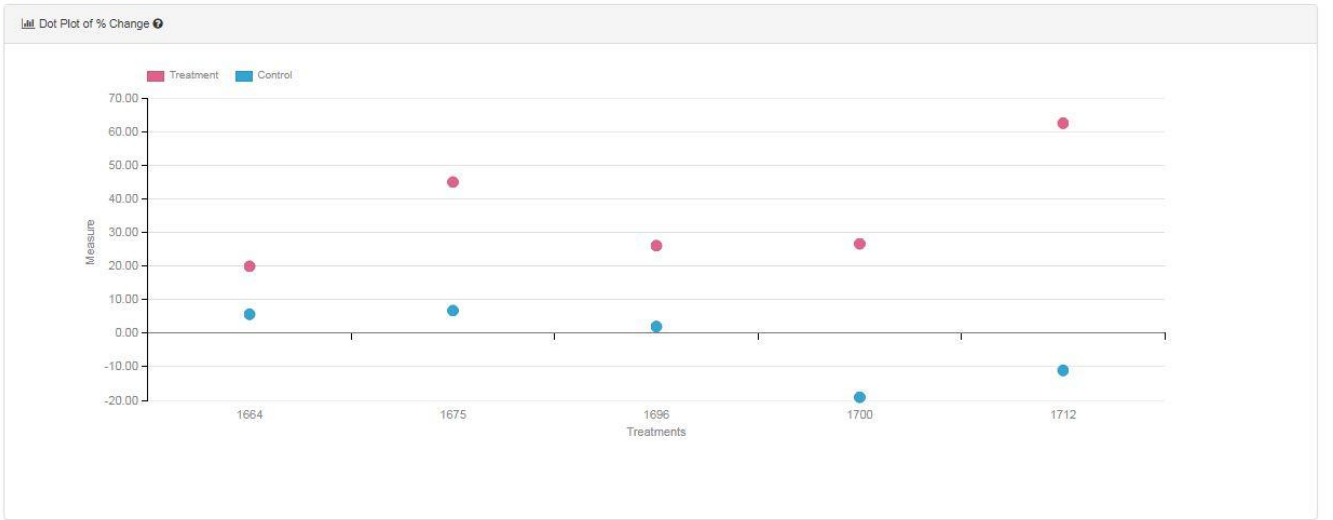
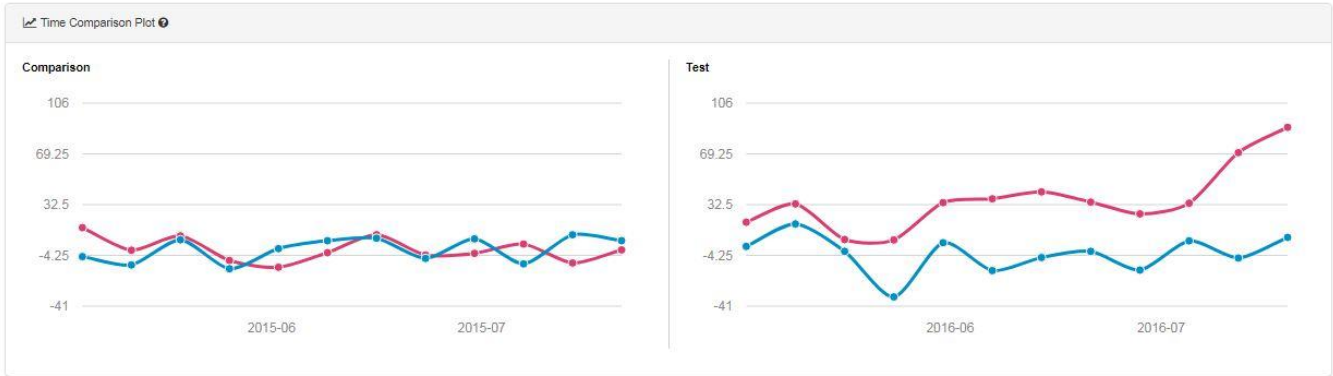
Lift and statistical significance analysis:-

The lift comes out to be 40.8 %. This clearly shows that running the television campaign and introducing the new product offering will significantly boost the company's profits. Thus, the company should definitely go forward with the marketing campaigns and new product introductions. Also, the statistical significance is 100% which is a very good indicator of the accuracy of the AB test.



The individual lifts for 'Central' and 'West' region also show an increase. The lift for 'Central' region is 42.4% and the lift for 'West' region is 32.8%. The visualizations have also been attached below.

Central region:-



West region:-

