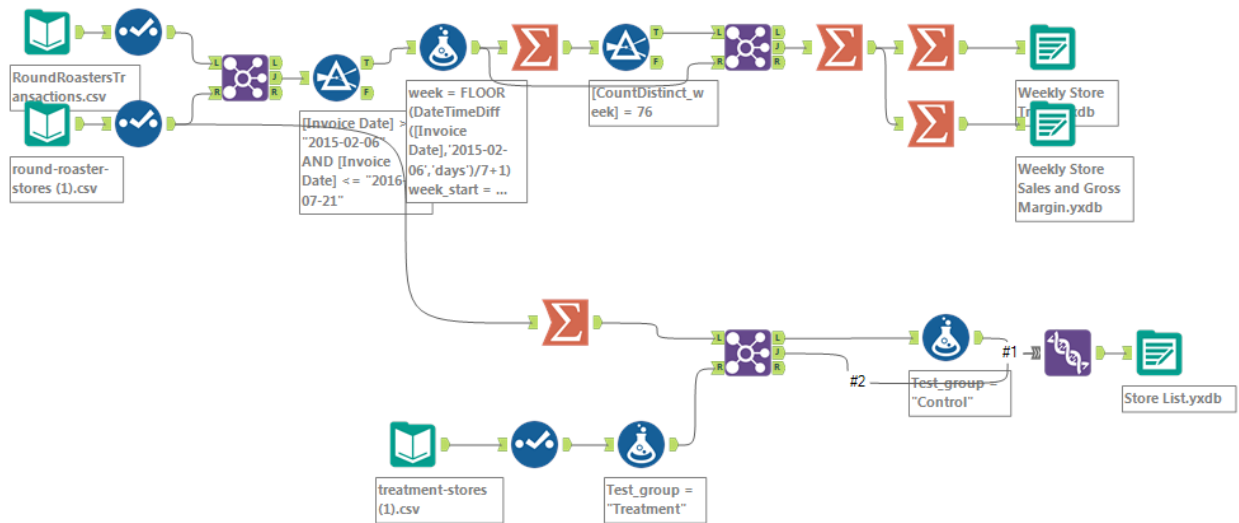


Project: Analyzing a Market Test

Plan Your Analysis

1. What is the performance metric you'll use to evaluate the results of your test?
For performance metrics, sum of gross margin will be evaluated to determine whether to roll out the updated menu with gourmet sandwiches, along with limited wine offerings or not.
2. What is the test period?
The test ran for a period of 12 weeks (2016-April-29 to 2016-July-21)
3. At what level (day, week, month, etc.) should the data be aggregated?
The level of the data should be aggregated weekly

Clean Up Your Data



Match Treatment and Control Units

1. What control variables should be considered? Note: Only consider variables in the RoundRoastersStore file.
AvgMonthSales, Trend, Seasonality should be considered.
2. What is the correlation between your each potential control variable and your performance metric?
From the Pearson Correlation Analysis, AvgMonthSales has a correlation of 0.7903 with the performance metric, Sum of Gross Margin. However, Sq_Ft has a poor correlation of -0.0193 with the performance metric.

Pearson Correlation Analysis

Full Correlation Matrix

	Sum_Sum_Gross.Margin	Sq_Ft	AvgMonthSales
Sum_Sum_Gross.Margin	1.000000	-0.019320	0.790357
Sq_Ft	-0.019320	1.000000	-0.046967
AvgMonthSales	0.790357	-0.046967	1.000000

Matrix of Corresponding p-values

	Sum_Sum_Gross.Margin	Sq_Ft	AvgMonthSales
Sum_Sum_Gross.Margin		5.2101e-02	0.0000e+00
Sq_Ft	5.2101e-02		2.3119e-06
AvgMonthSales	0.0000e+00	2.3119e-06	

- What control variables will you use to match treatment and control stores?
When matching treatment and control stores, AvgMonthSales will be used together with Trend and Seasonality while Square Feet should be ignored.
- Please fill out the table below with your treatment and control stores pairs:

Treatment Store	Control Store 1	Control Store 2
1664	7162	8112
1675	1580	1807
1696	1964	1863
1700	2014	1630
1712	8162	7434
2288	9081	2568
2293	12219	9524
2301	3102	9238
2322	2409	3235
2341	12536	2383

Analysis and Writeup

- What is your recommendation - Should the company roll out the updated menu to all stores?
The company should roll out the updated menu to all stores since there would be an overall lift of 40.7% with a statistical significance of 100%
- What is the lift from the new menu for West and Central regions (include statistical significance)?
The lift for West region is 37.9% while the lift for Central region is 43.5% and both have a statistical significance of approximately 99.5%.

West Region Lift Analysis

Lift	Expected Impact	Significance Level
37.9%	527	99.5%

Central Region Lift Analysis

Lift	Expected Impact	Significance Level
43.5%	836	99.6%

3. What is the lift from the new menu overall?

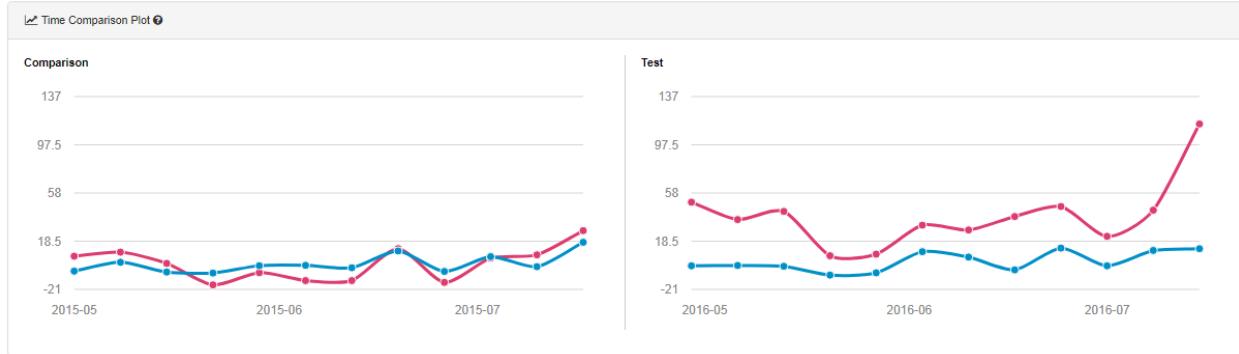
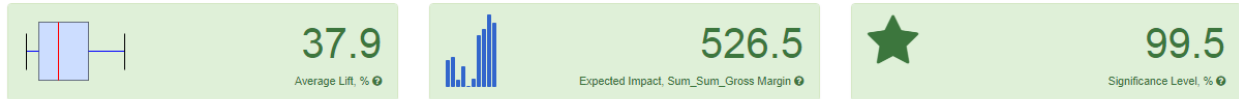
The lift for the new menu overall is 40.7% with a statistical significance of 100%.

Overall Lift Analysis

Lift	Expected Impact	Significance Level
40.7%	681	100.0%

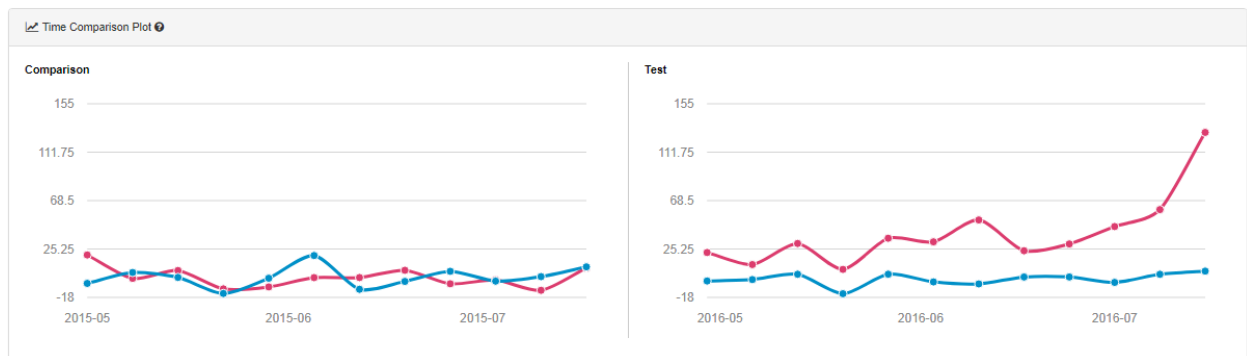
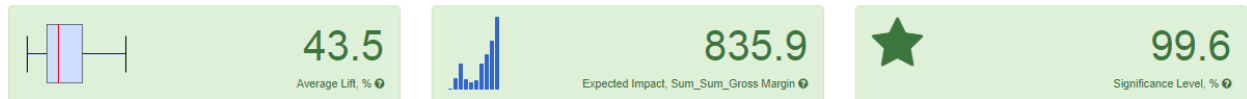
West Region A/B Analysis

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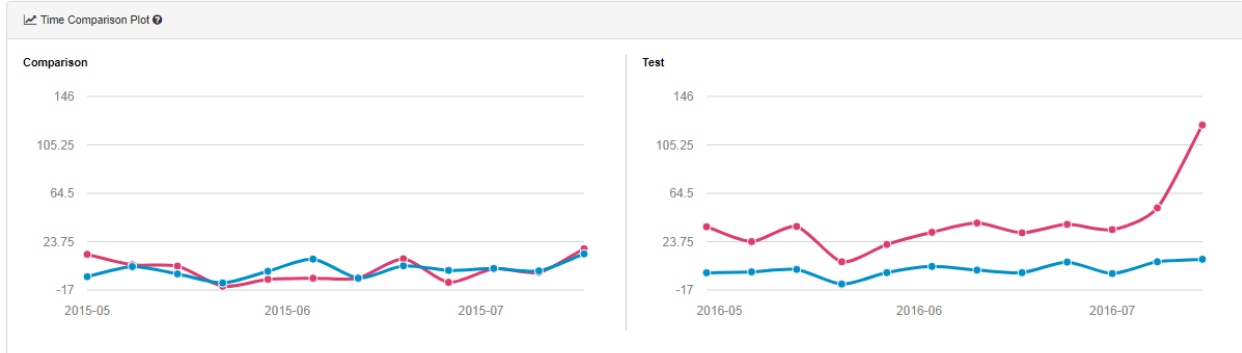
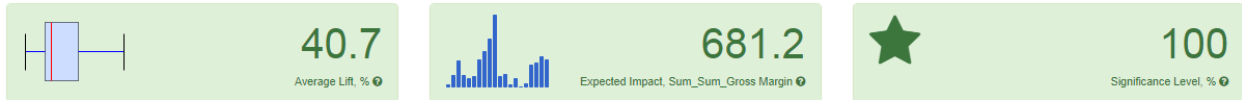
Central Region A/B Analysis

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Overall A/B Analysis

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Alteryx Workflow

