June 2020

Category review: Chips

Retail Analytics

quantium

Our 17 year history assures best practice in privacy, security and the ethical use of data

We all have a responsibility to use data for good

Quantium believes in using data for progress, with great care and responsibility. As such please respect the commercial in confidence nature of this document.

Privacy

- We have built our business based on privacy by design principles for the past 17 years
- Quantium has strict protocols around the receipt and storage of personal information
- All information is de-identified using an irreversible tokenisation process with no ability to re-identify individuals.

Security

- We are ISO27001 certified - internationally recognised for our ability to uphold best practice standards across information security
- We use 'bank grade' security to store and process our data
- Comply with 200+ security requirements from NAB, Woolworths and other data partners
- All partner data is held in separate restricted environments
- All access to partner data is limited to essential staff only
- Security environment and processes regularly audited by our data partners.

Ethical use of data

Applies to all facets of our work, from the initiatives we take on, the information we use and how our solutions impact individuals, organisations and society.

quantium

Executive summary

01 Customer Analysis

- There are promotion opportunities in different time of the year for improving sales.

- The total sales of the Chips are driven by the quantity, not price.

- Customer has shown preferences in chip brands, which need to be considered in stock ordering.

- Families(except new families), on average, tend to have higher total sales per customer than singles/couples.
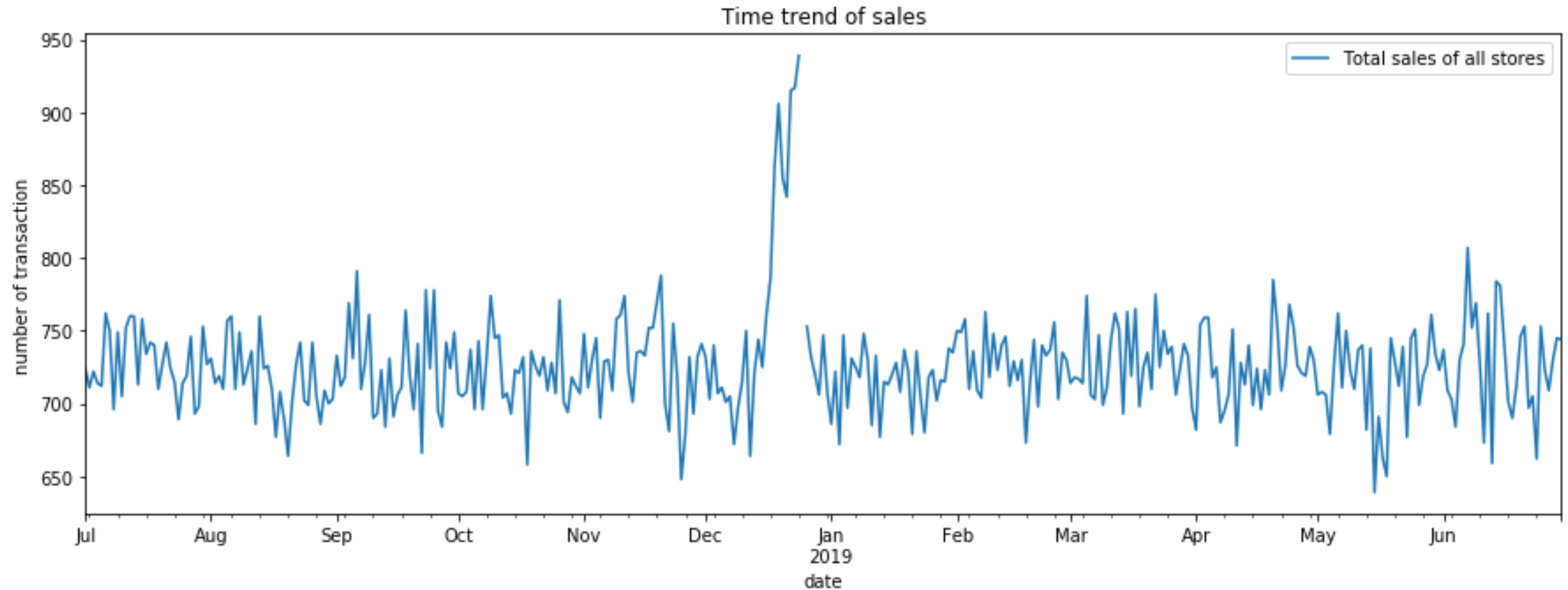
02 Trial Store Analysis

- Trial Store 77 and 88 out-perform their control store in the trial period.

- Trial Store 86 have failed to show an significant uplift in total sale compare to its control store.

3

quantium

01

Category

quantium

Overview: Promotion could be rolled out for some special time of the year

Time Trend of sales

quantium

Affluence and life-stage impact on buying for the category of chips

Top sales driver segments

	Total Sales		Number of Customer
Budget, Older Families:	$167,352.95	Mainstream, Young singles/couples:	8,078
Mainstream, Young singles/couples:	$156,975.00	Mainstream, Retirees:	6,479
Mainstream, Retirees:	$155,143.55	Budget, Older singles/couples:	4,926
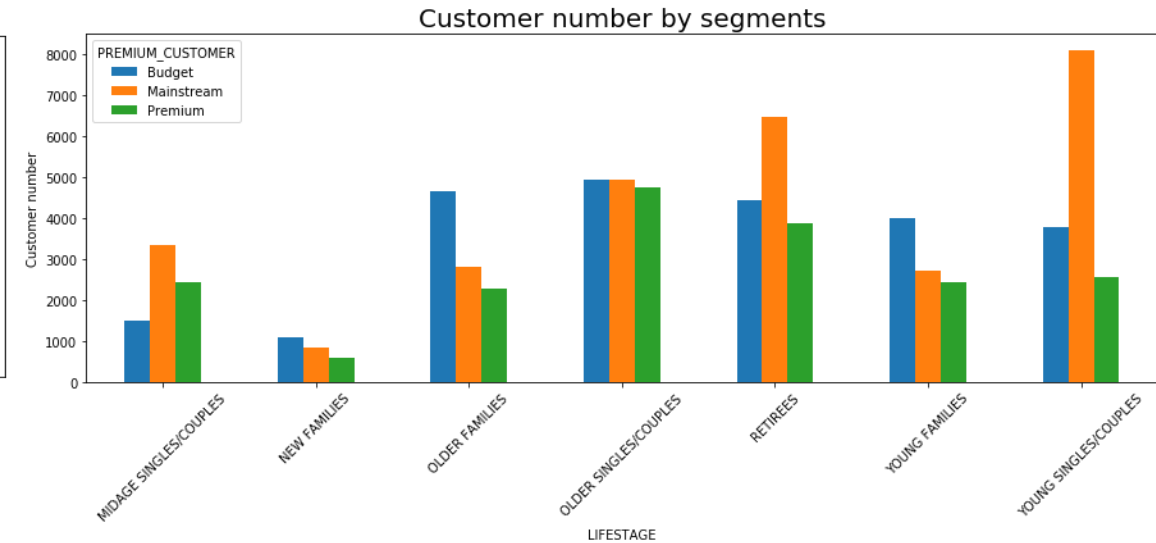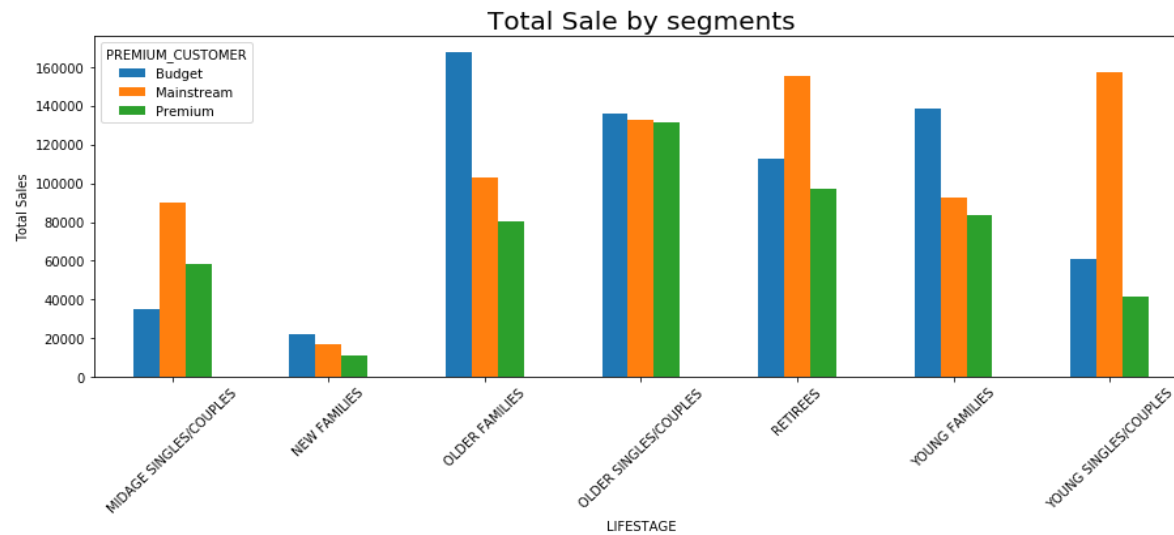
quantium

Further analysis on driver of sales

Sales = Quantity x Price

Quantity component: Average purchase per customer

- Older Families and Young Families make more purchase

  - Implication: Need to feed for the family members,

    promote family pack to uplift sales.

Price component: Price per unit purchased

- No significant difference in price per unit in each of the life-stage

  and affluence combination

 - Implication: No price premium can be charged on of the

    chips
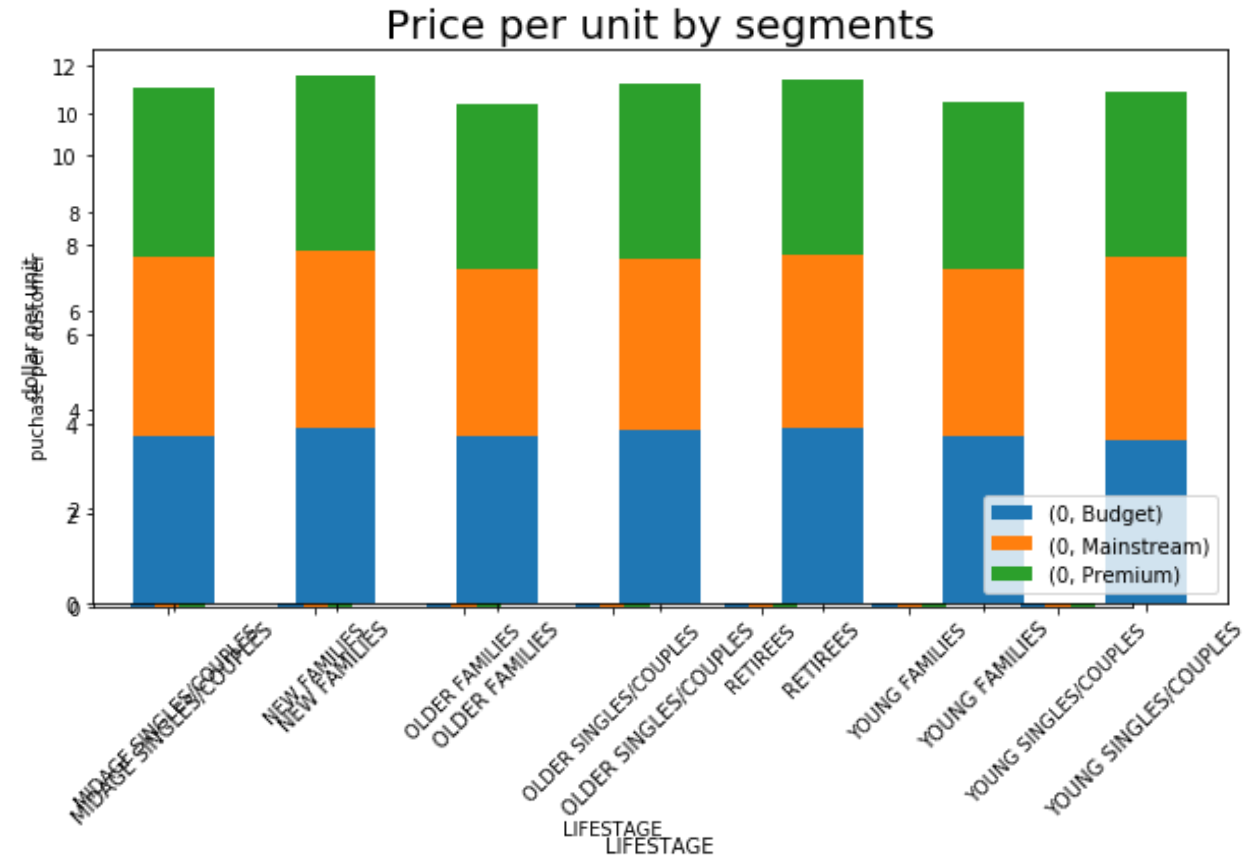
Best selling pack size and brand

Top selling pack size: 175g

- 175g and 150g are the two best-selling pack sizes

  - Implication: Any size larger than 175g and 150g, would

    be too much for one consumption, and verse visa

- Except for New Families, the best-selling pack size is 175g.
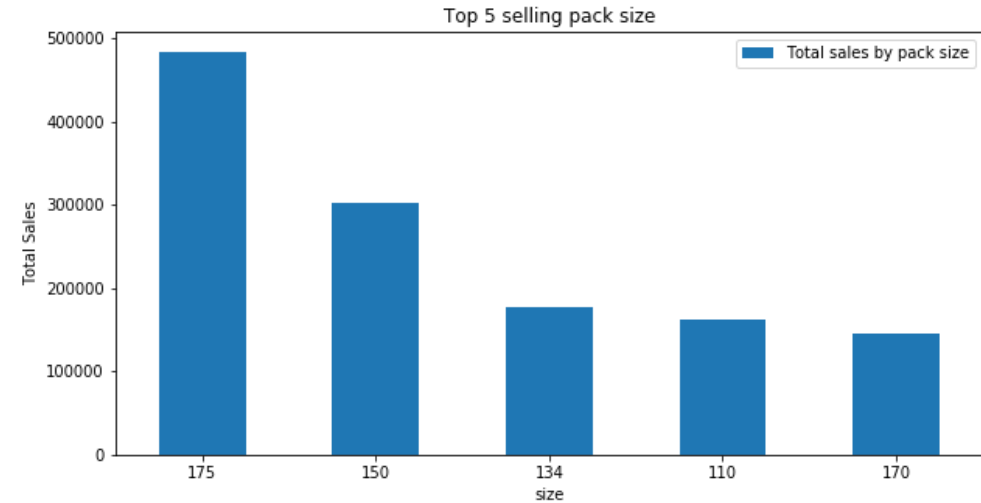
Top selling Brand: Kettle

- Kettle has 1.43 folds of sales compare to the Doritos -2nd

  best-selling brand. The leads suggests that Kettle is the

  dominate brand for chips..

quantium

Classification: Confidential
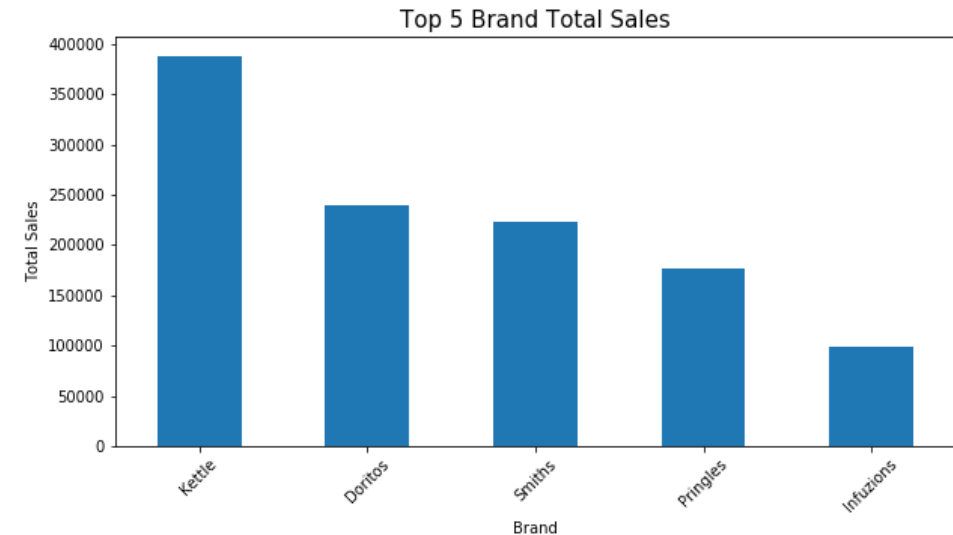
Recommendation

Time Trend:
- Prepare more stocks before Christmas in order to cater for the sales jump in December.
- Be aware for higher sales in the beginning and end of a month, and lower sales during the middle of a month. Plan stock ordering accordingly.

Customer segment:
- Main target segment: Budget, Older Families
- Possible marketing strategy: promote family packs, In order words, combines several packs in one, and maybe give discount. It improves sales by encouraging people buying more in one purchase.
- New Families has low customer number and total sales. The segment is not properly engaged. Recommendation could be implementing and releasing "Target advertisement" to bring up attention of this segment.

Pack size:
Prepare more stock with pack size 175g and 150g. Since these are the two best selling pack size.

Brand:
- Order more Kettle, Doritos and Smith to ensure sufficient stocks.

9

quantium

02

Trial store performance

quantium

Explanation of the control store vs other stores

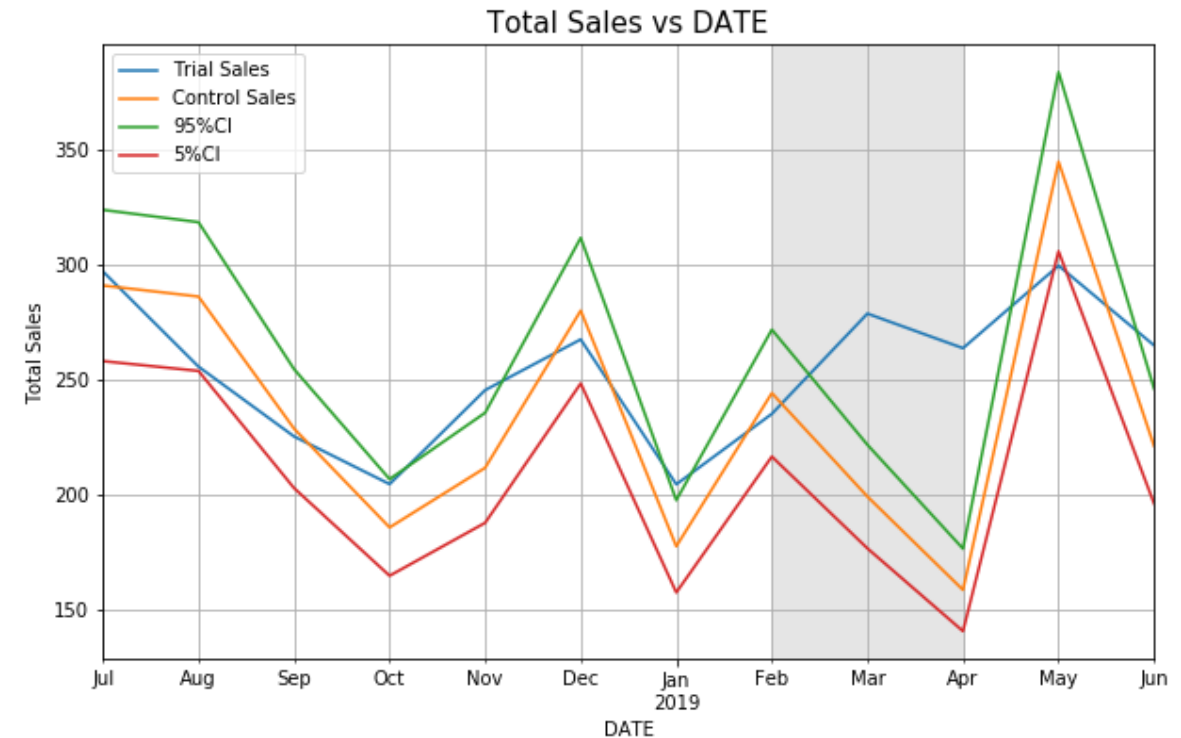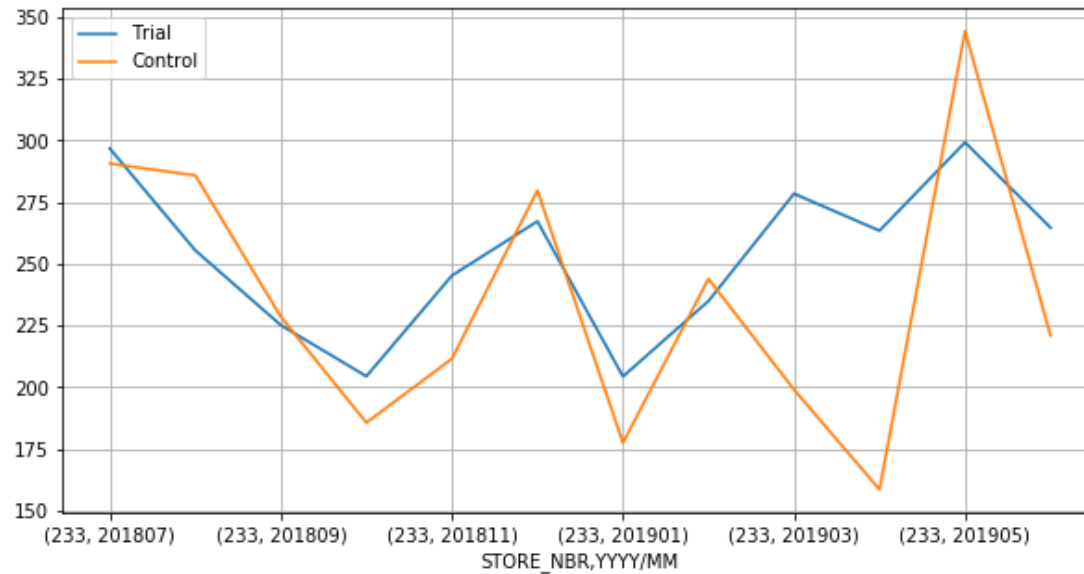| Trial Store	Control Store
77	233
86	155
88	237

Selection Criteria:
1. Monthly total sales
2. Total number of customer (In min-max scale)

Methodology:
1. Obtain figure for two selection criteria from dataset
2. Calculate correlation regards to the two criteria, higher correlation means higher similarity of two store.
3. Calculate a similarity score by taking average of the two criteria, in which we obtain a score range from 1 to -1.
4. We select the store with highest similarity score

quantium

Performance in the trial store

Trial Store 77, Control store 233

Findings:

- The trial store and control store follow a similar pattern in sales

- The graph on the right shows the trial store have statistically higher sales than control store in March and April in 2019

quantium

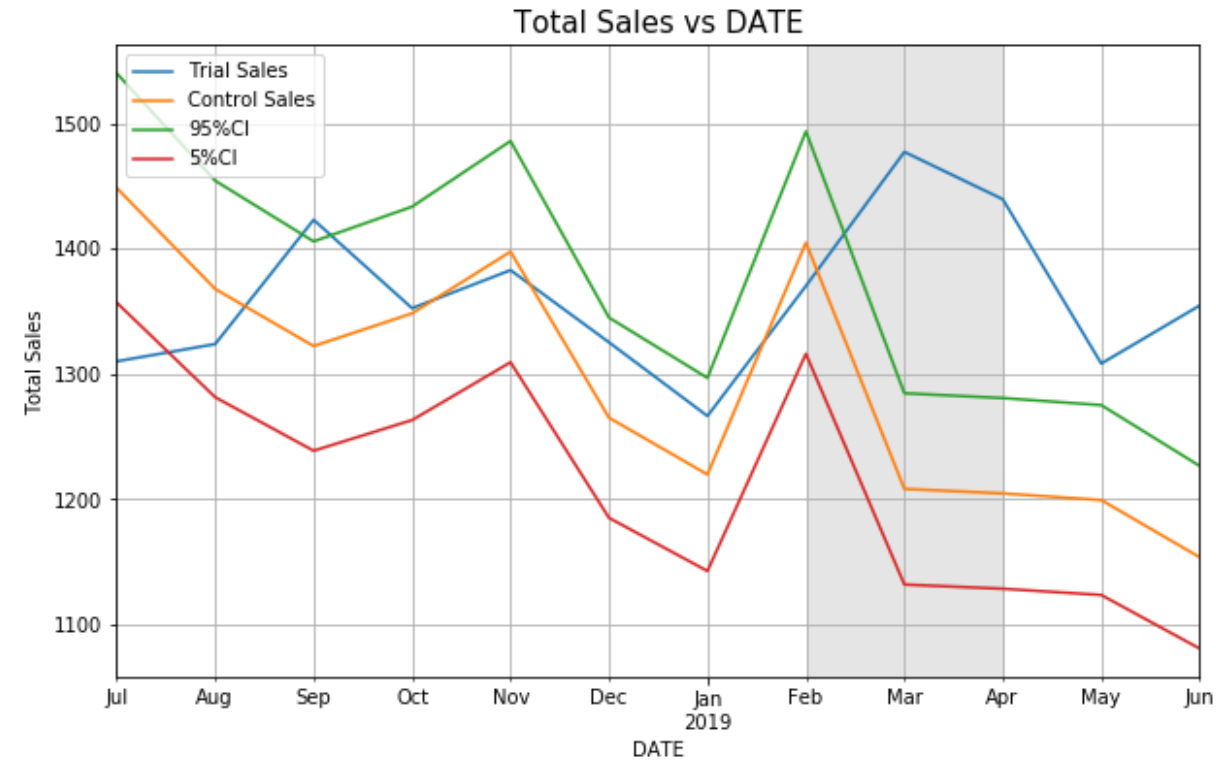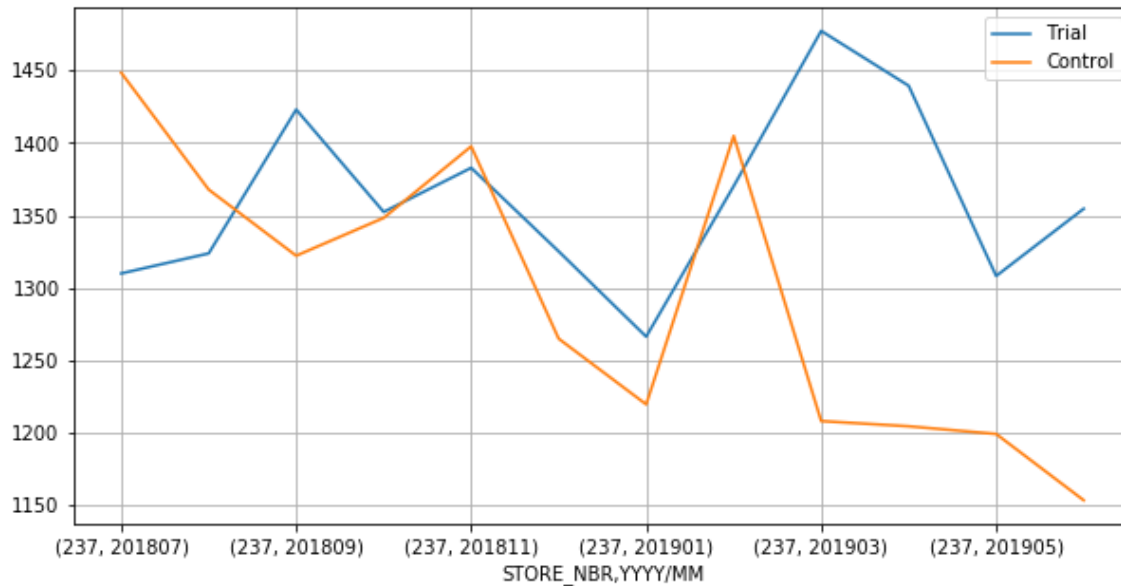# Performance in the trial store

Trial Store 86, Control store 155

Total Sales vs DATE
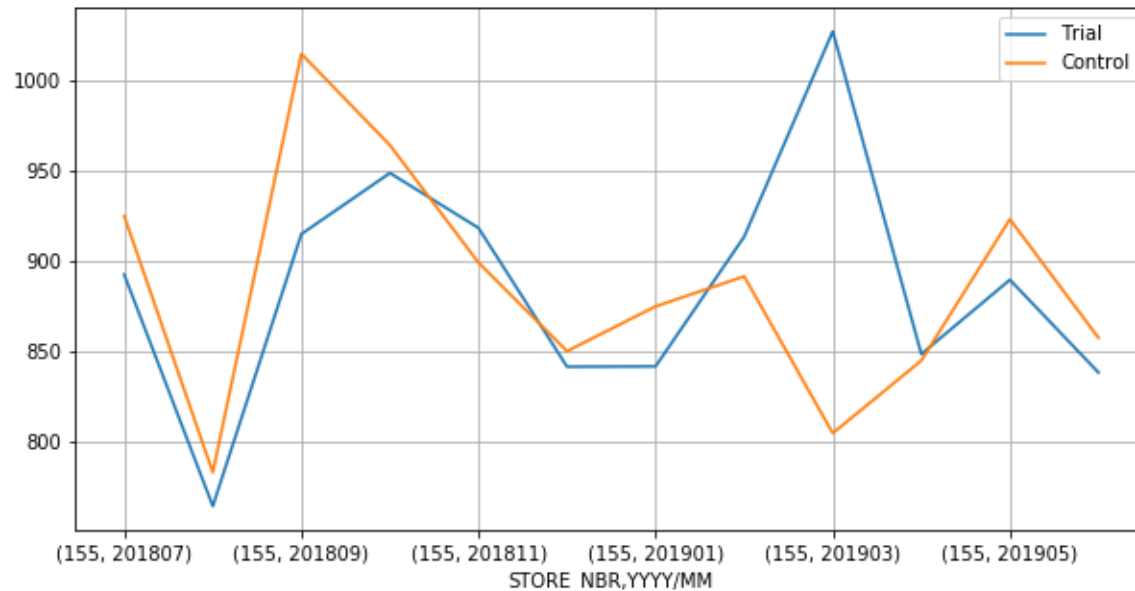
Findings:

- The trial store and control store follow a similar pattern in sales, despites a spike in March 2019.

- The graph on the right shows the trial store have statistically higher sales than control store in only March 2019.
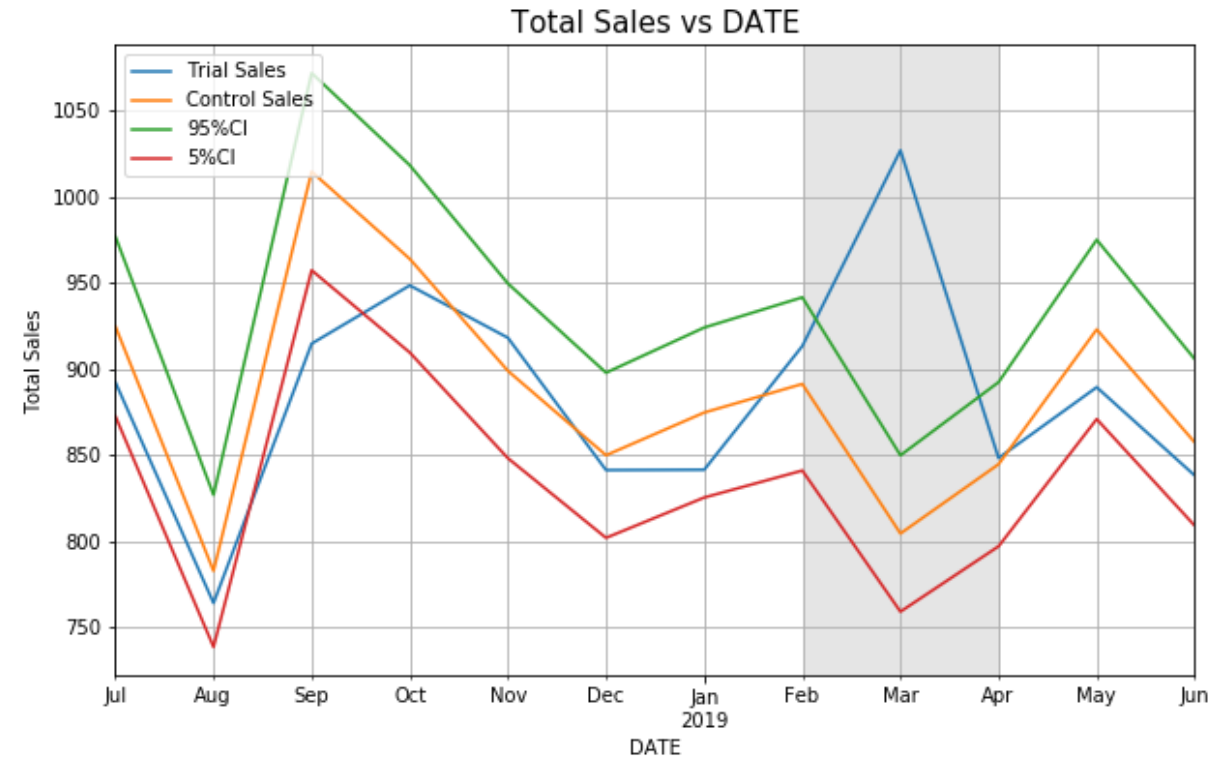
Performance in the trial store

Findings:

- The trial store and control store follow a similar pattern in sales.

- The graph on the right shows the trial store have statistically higher sales than control store in March and April in 2019

14

quantium

Classification: Confidential

Next Step

Due to limited data, there are factors that could potentially affect the successfulness of control store selection. Hence, we need to collect information from the manager to validate our analysis.

Factors to be considered:
1. Pedestrian traffic count
2. Vehicle traffic count
3. Previous tenant (reputation of the area)
4. Structure of the building (accessibility)
5. Competitor in the surrounding area
6. Demographic of local people
7. Rental cost

quantium