

June 2020

Category review: Chips

Retail Analytics



Classification: Confidential



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

Privacy

- We have built our business based on privacy by design principles for the past 17 years
- Quantum 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.

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

Executive summary

01

Data preparation and customer analytics

- Chips transaction increase prior to Christmas
- Older and young family segment have highest average purchase unit per customer.
- Sales mainly came from Budget- older families, Mainstream- young/single couples, Mainstream- retirees

02

Experimentation and uplift testing

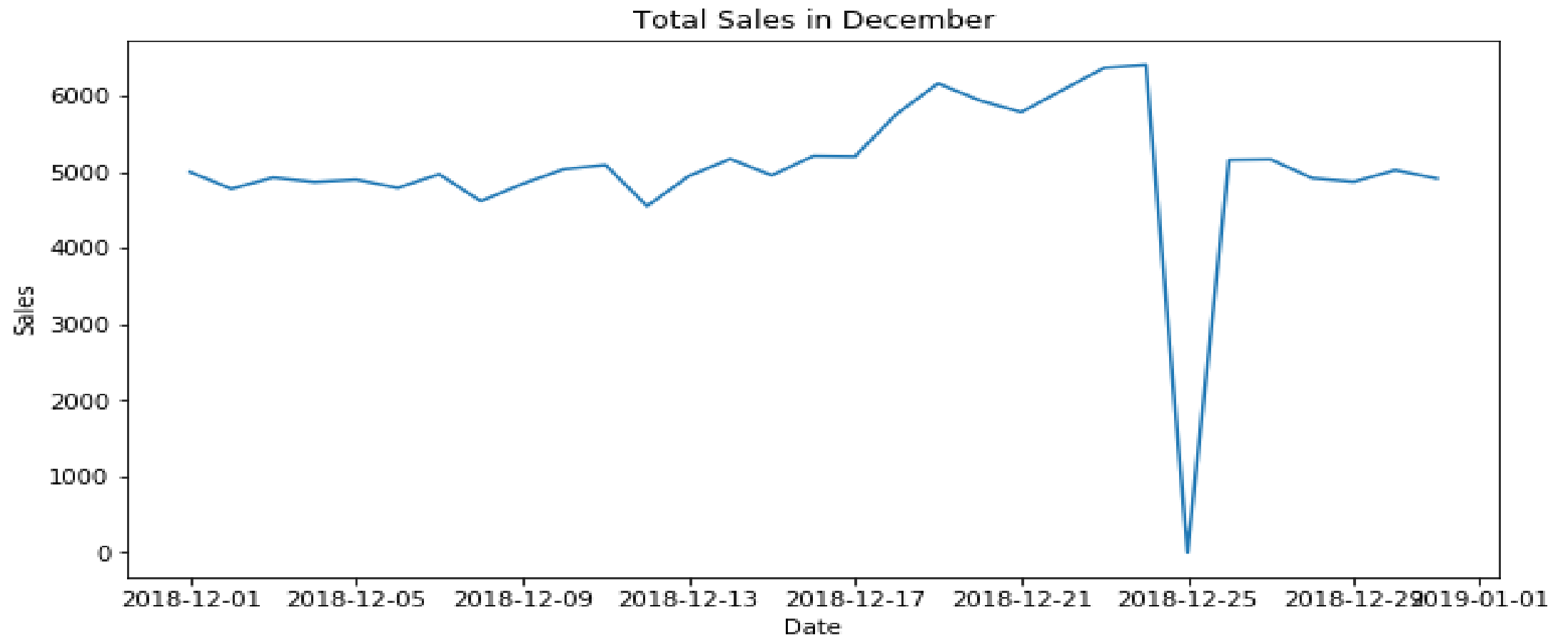
- The results for trial stores 77 and 88 during the trial period show a significant difference in at least two of the three trial months
- The results show that the trial in store 86 is not significantly different to its control store in the trial period

01

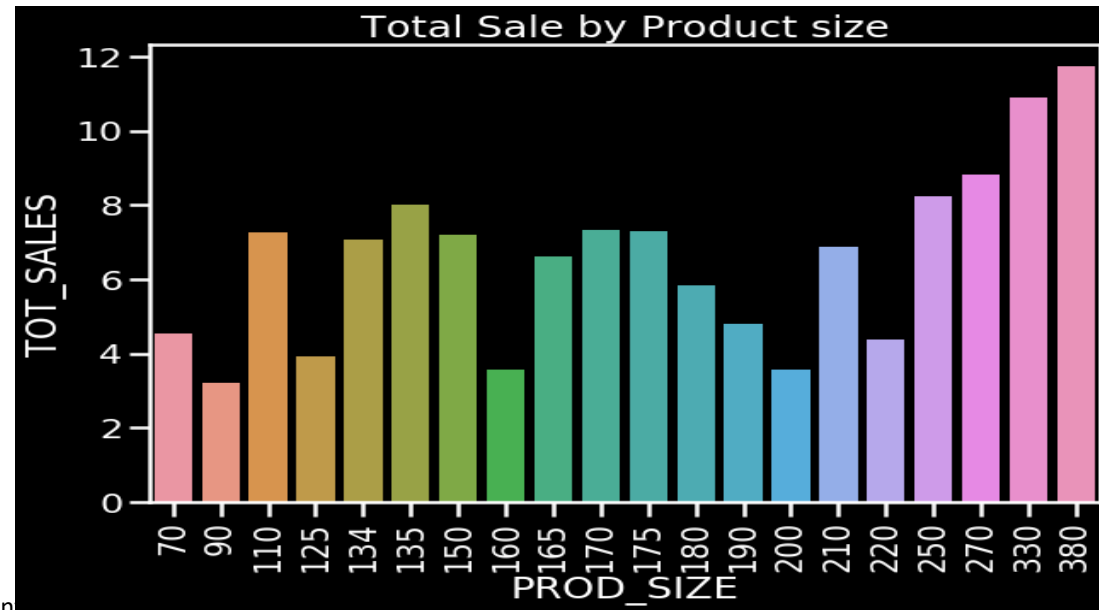
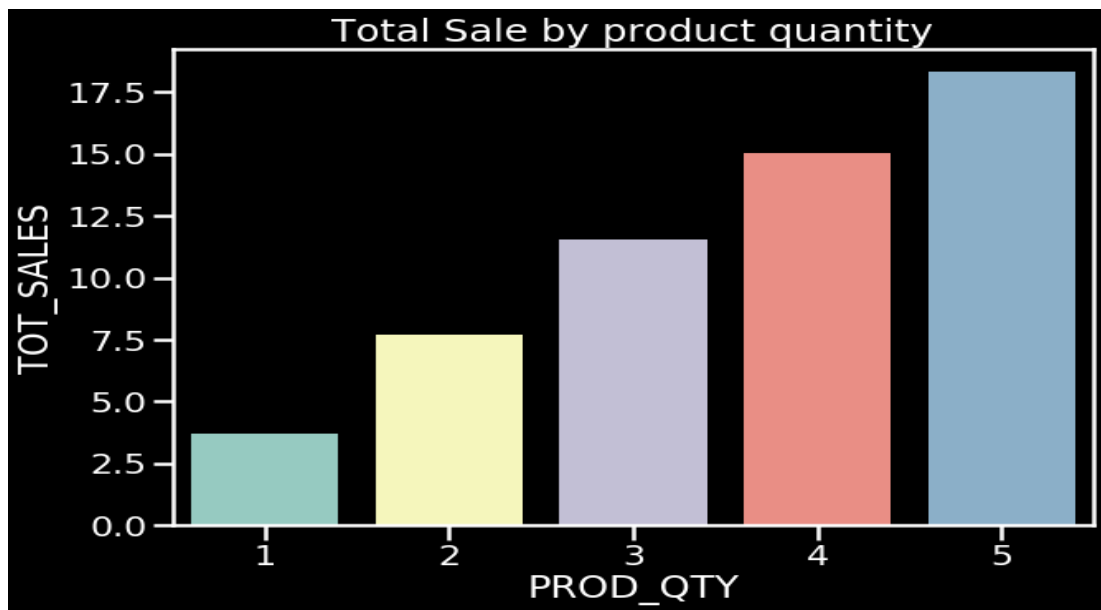
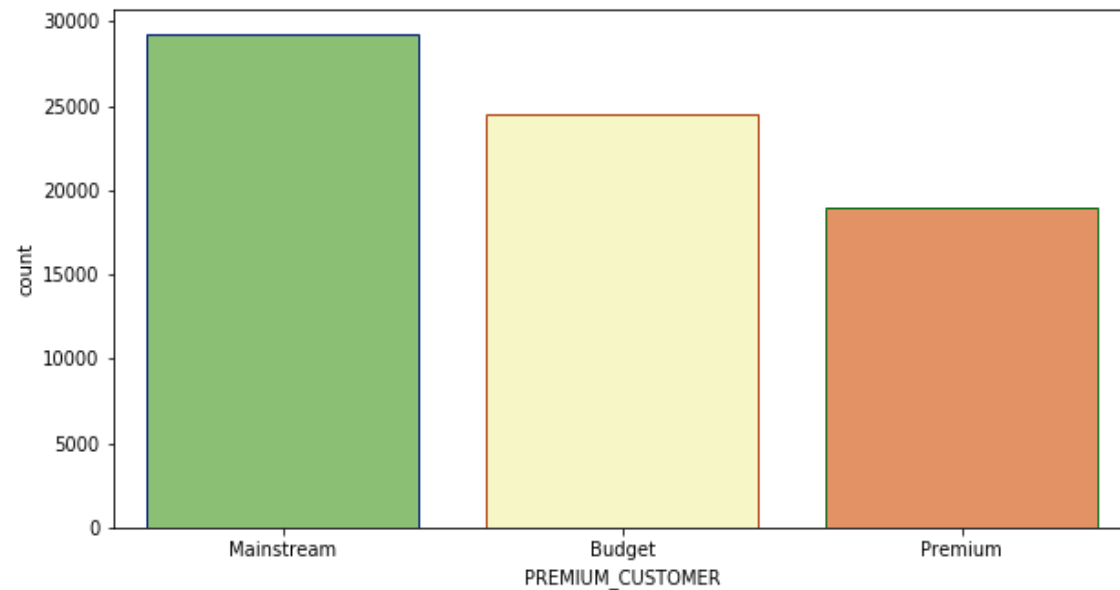
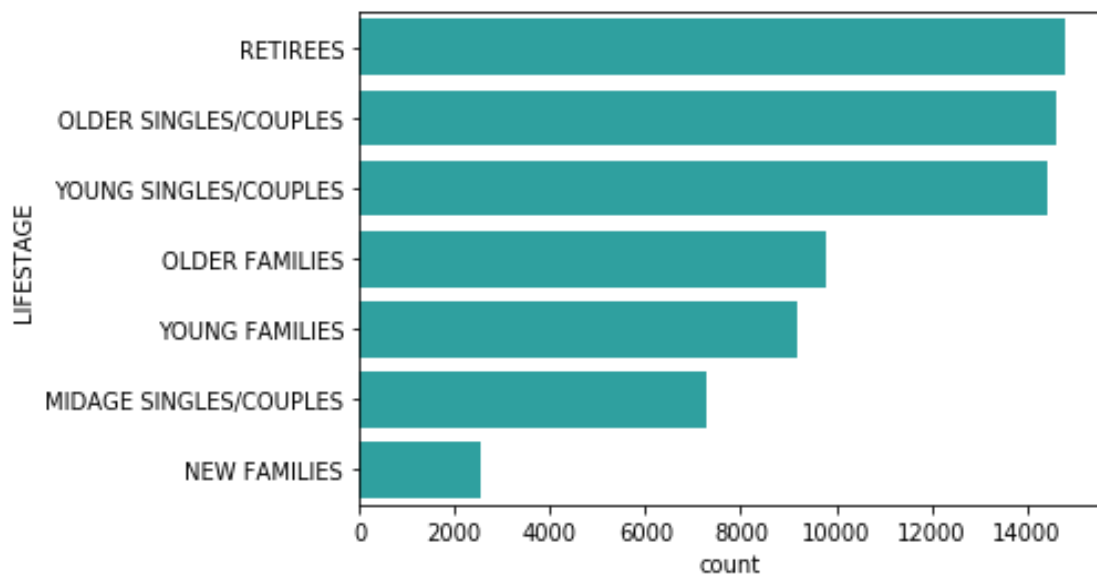
Data preparation and customer analytics

Conducted analysis on the client's transaction dataset and identified customer purchasing behaviours to generate insights and provide commercial recommendations.

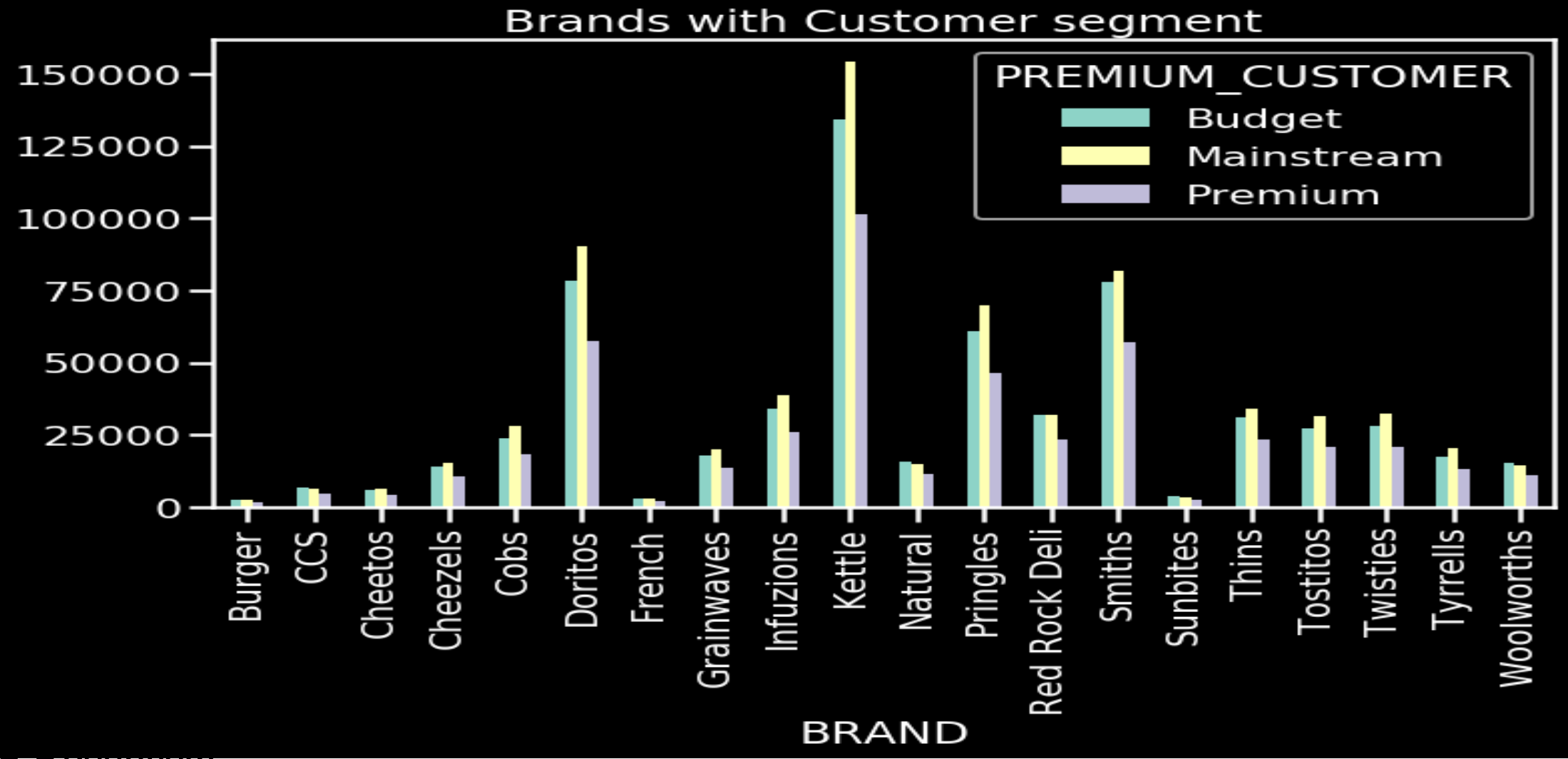
We can see that sales spike up during the December month and zero sale on Christmas Day due to shops being non-operational.



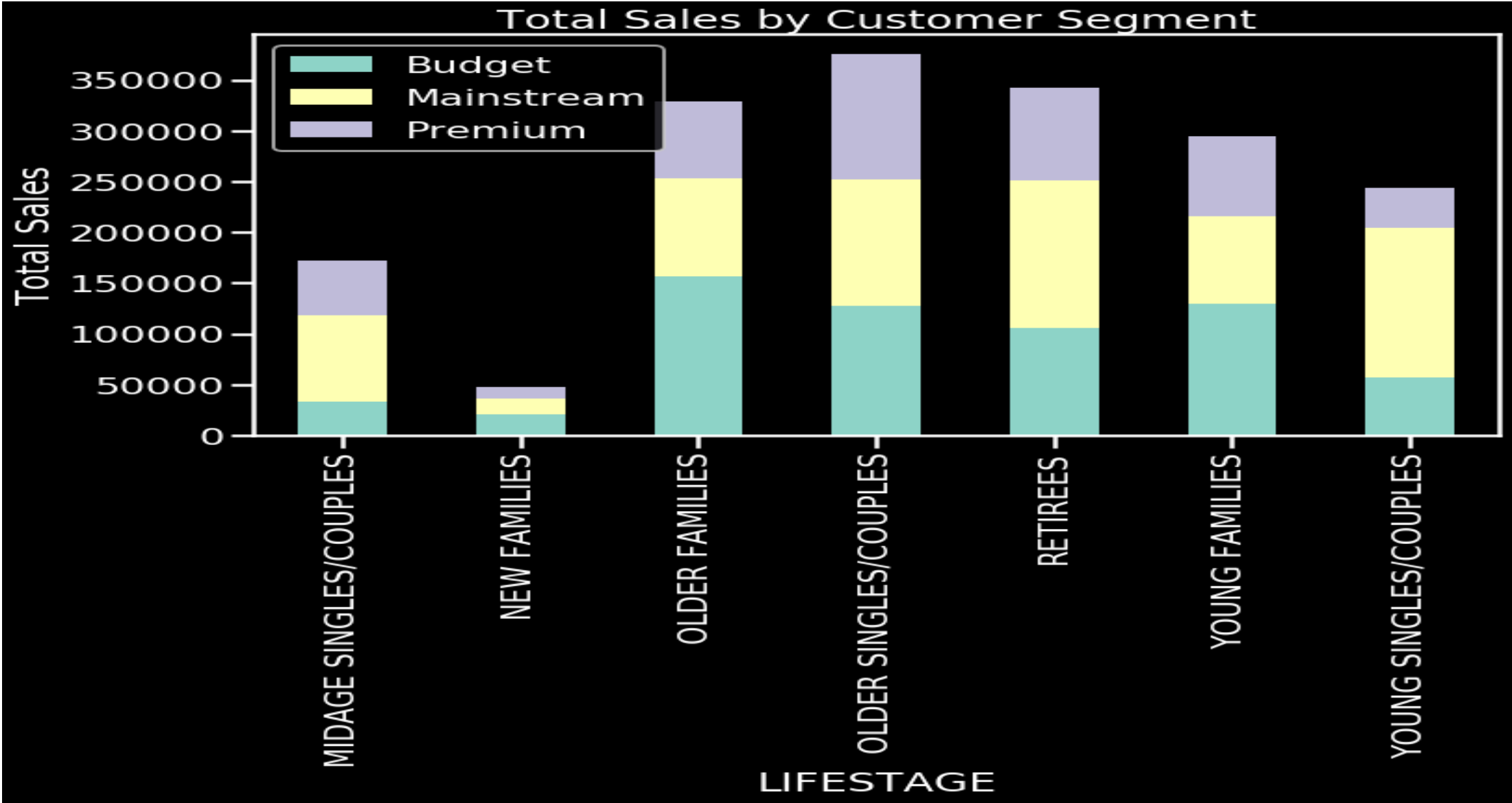
Data Visualization of some important features



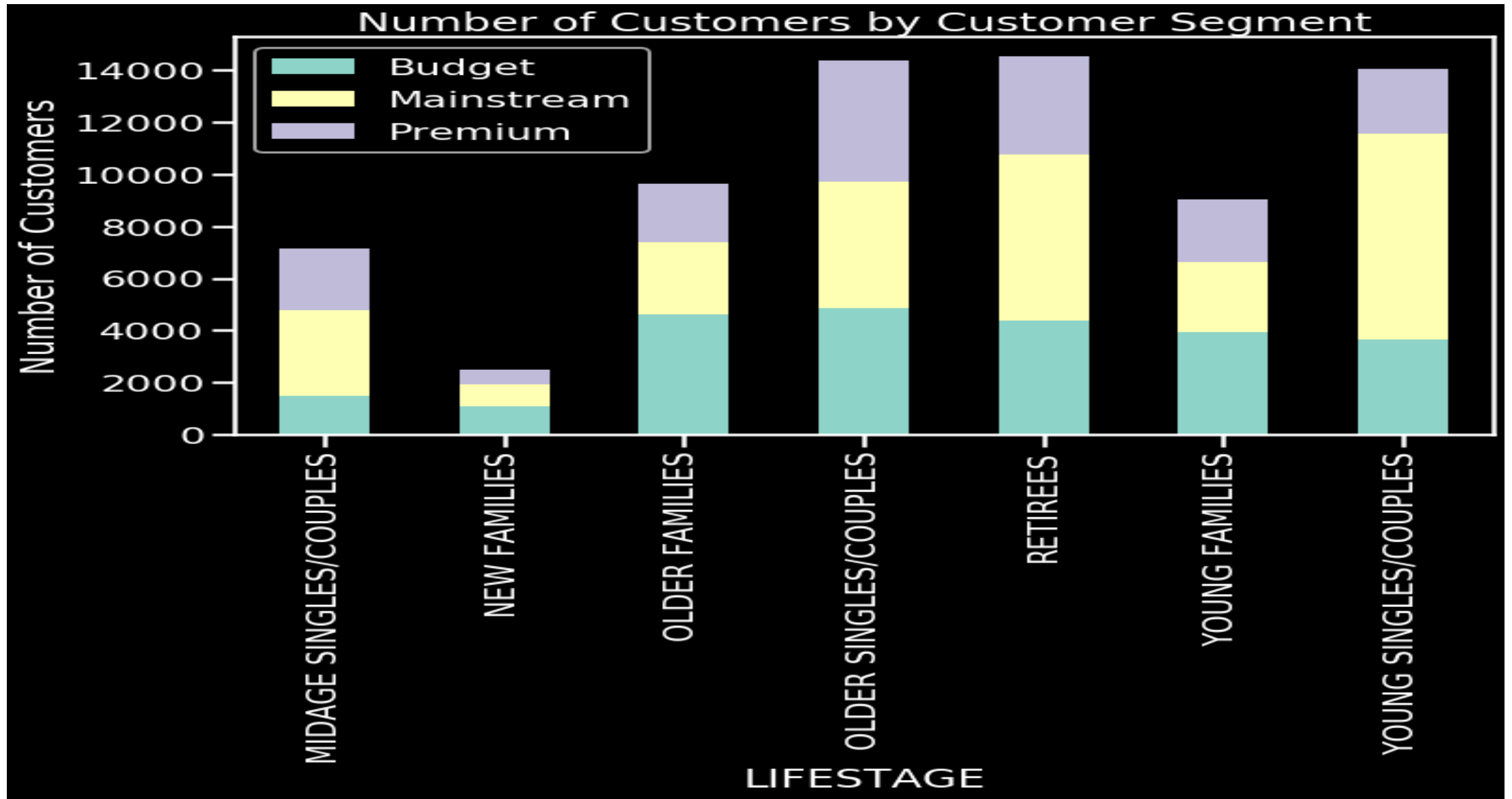
Brands with Customer Segment



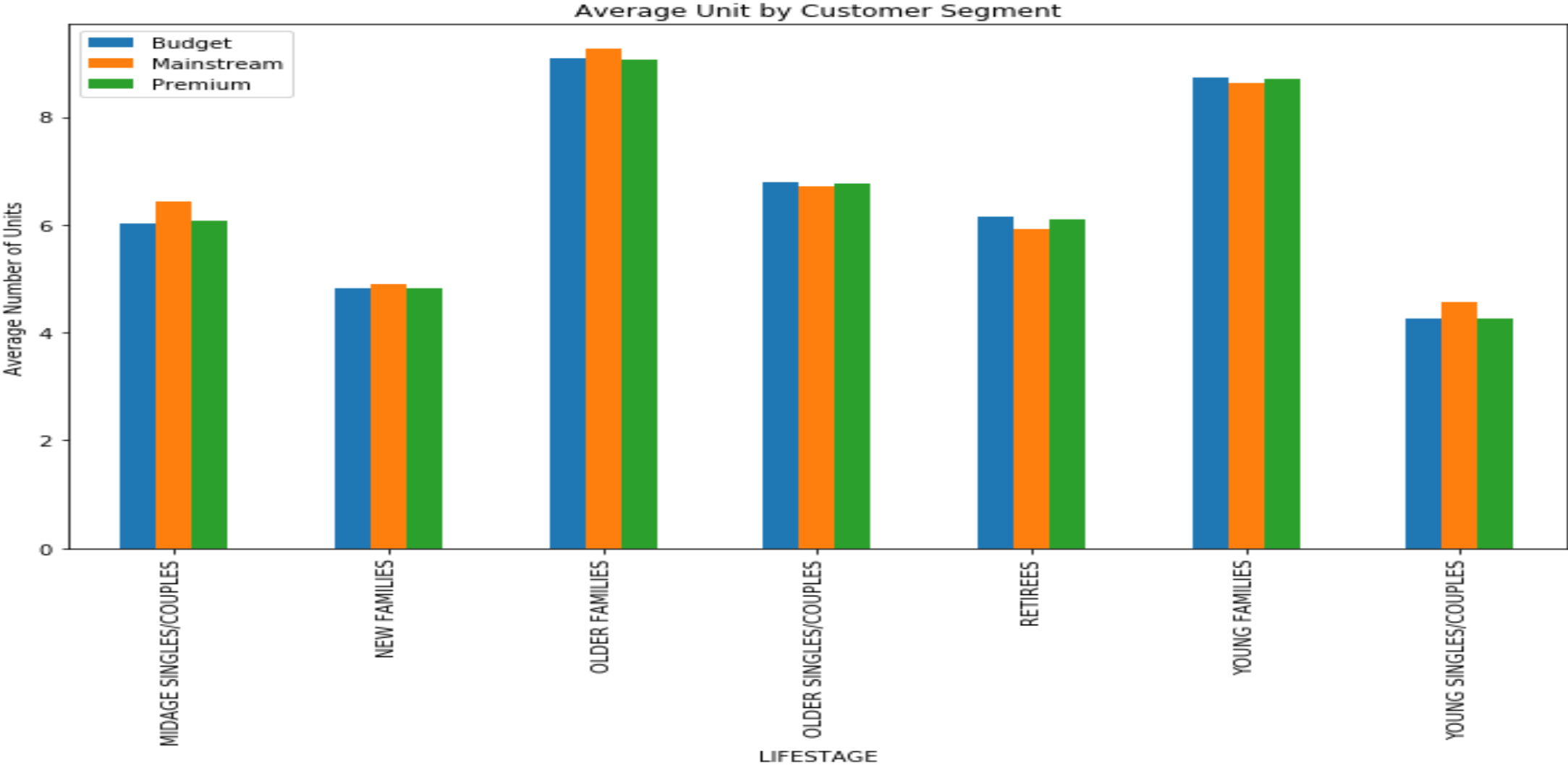
Top 3 sales come from budget older families, mainstream young singles/couples and mainstream retirees.



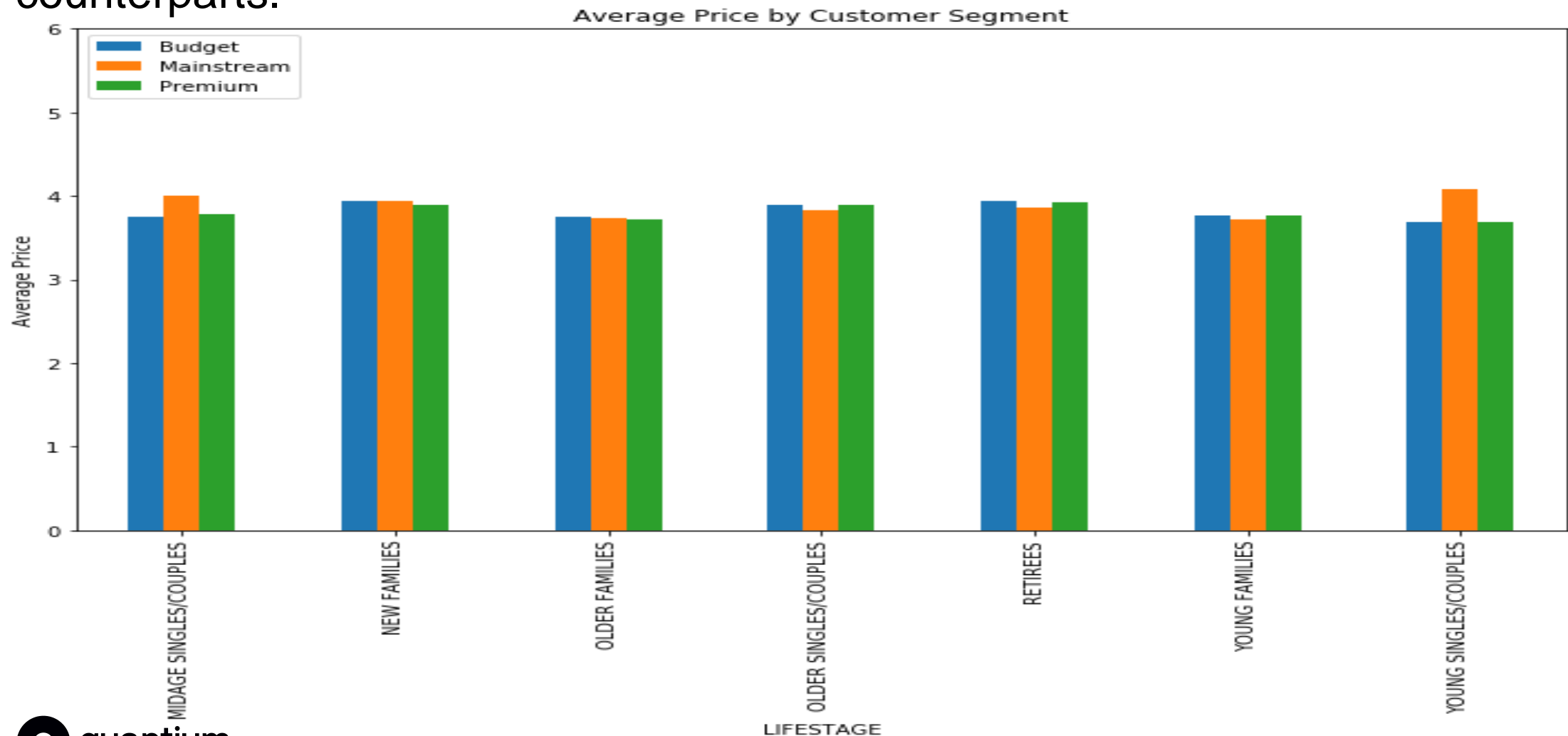
There are more mainstream young singles/couples and retirees. This contributes to more chips sales in these segments.



Older families and young families buy more chips per customer.



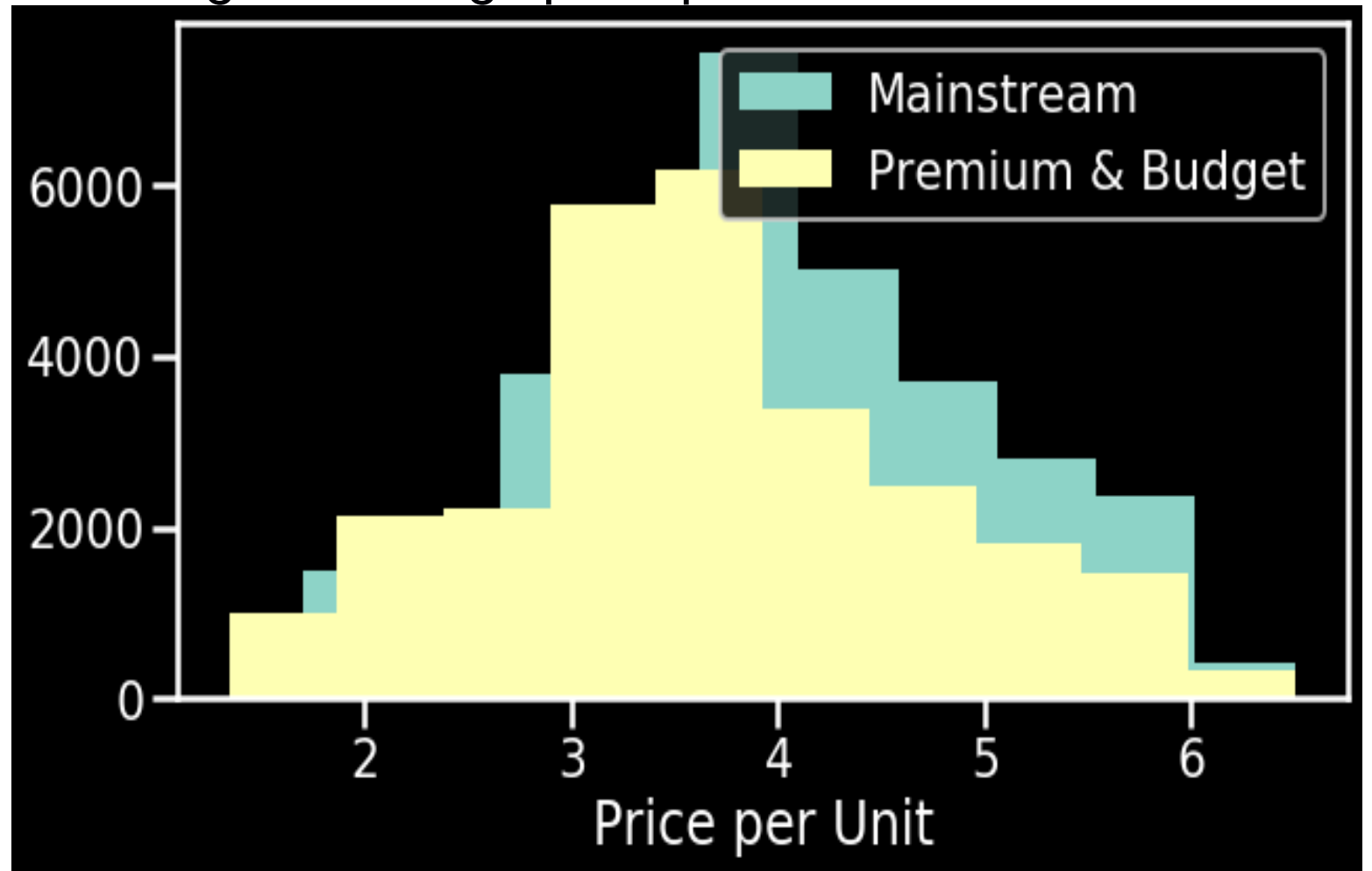
Mainstream mid age and young singles and couples are more willing to pay more per packet of chips compared to their budget and premium counterparts.



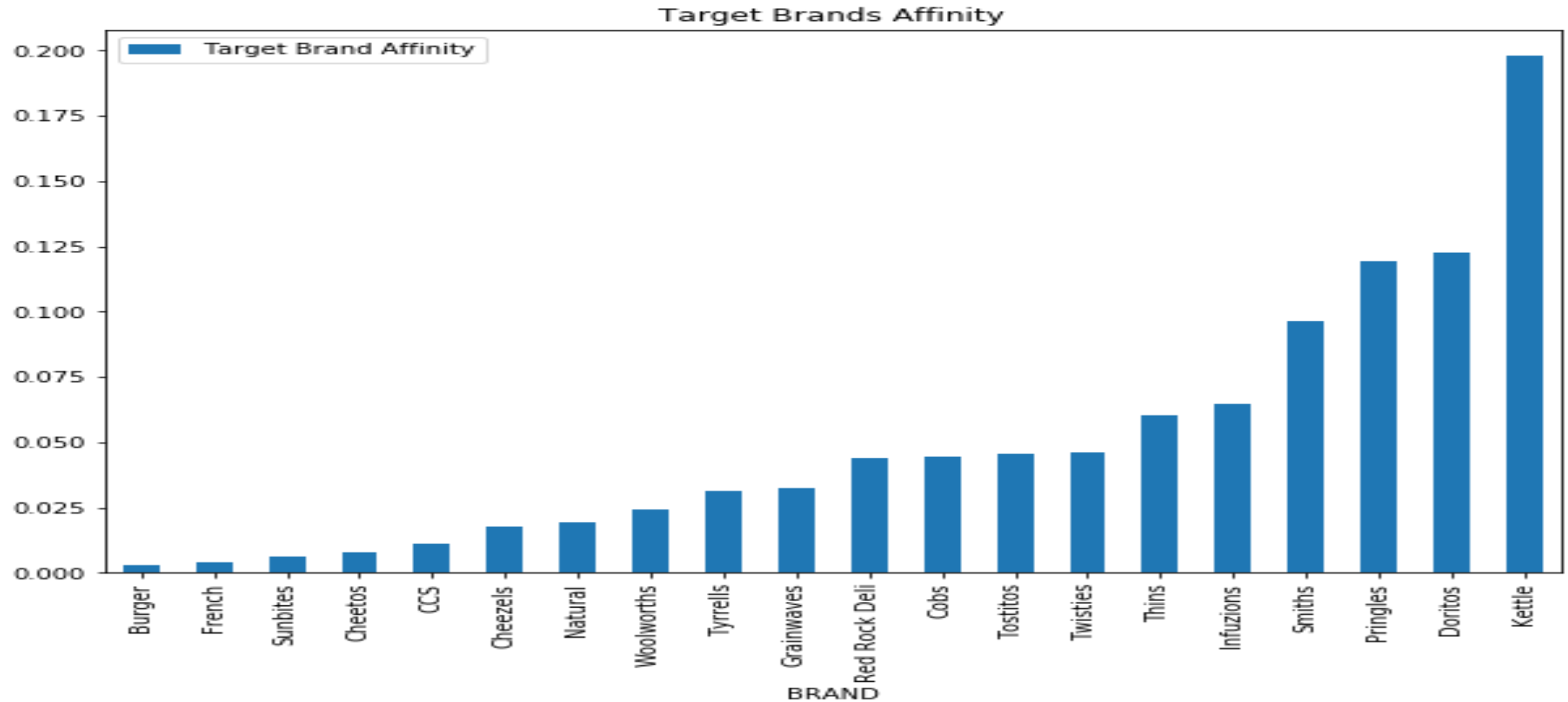
Comparing histograms of Mainstream and non-Mainstream
Mainstream customers have higher average price per unit.

Mainstream average price per unit:
\$4.04

Non-mainstream average price per unit:
\$3.71



In Target Brand Affinity 'Kettle' is the highest.



02

Trial store performance

Extended the analysis from Task 1 to help you identify benchmark stores that allow you to test the impact of the trial store layouts on customer sales

Explanation of the control store vs other stores

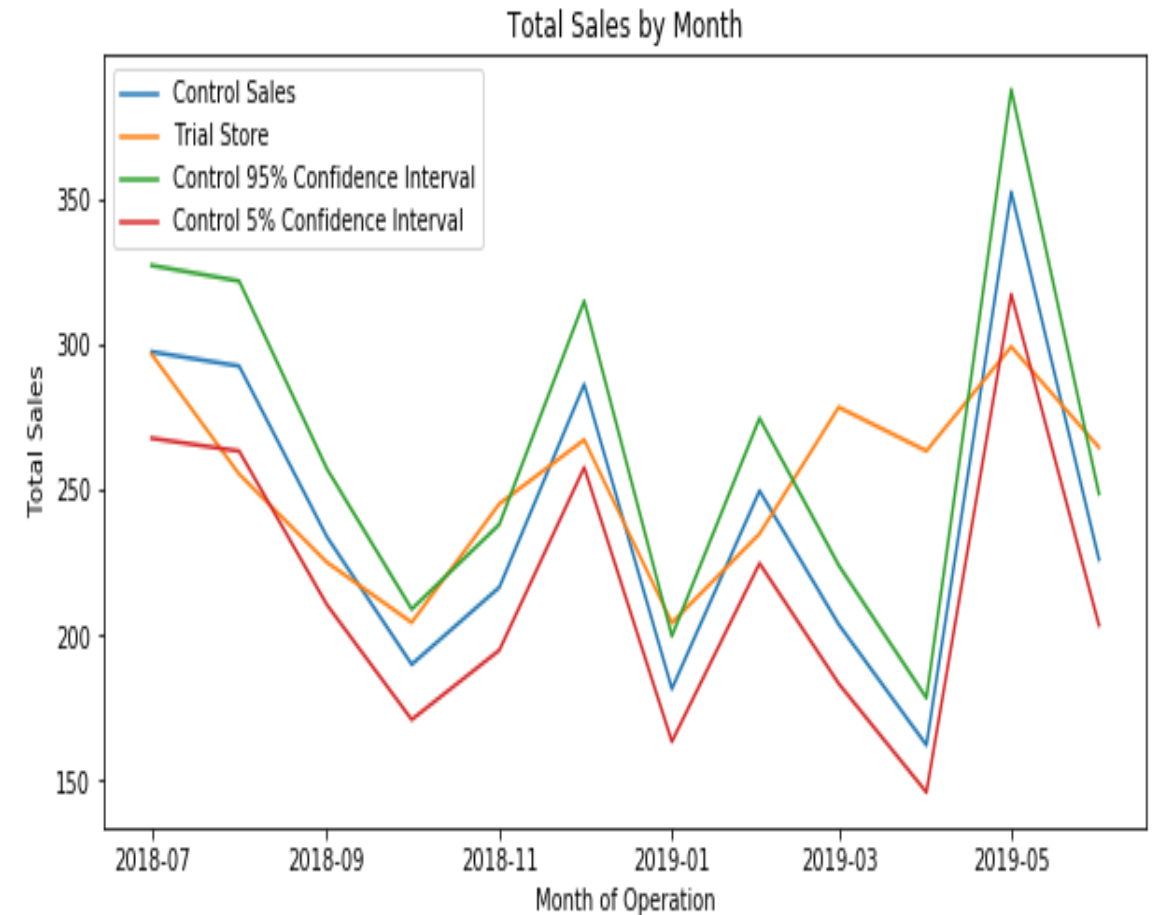
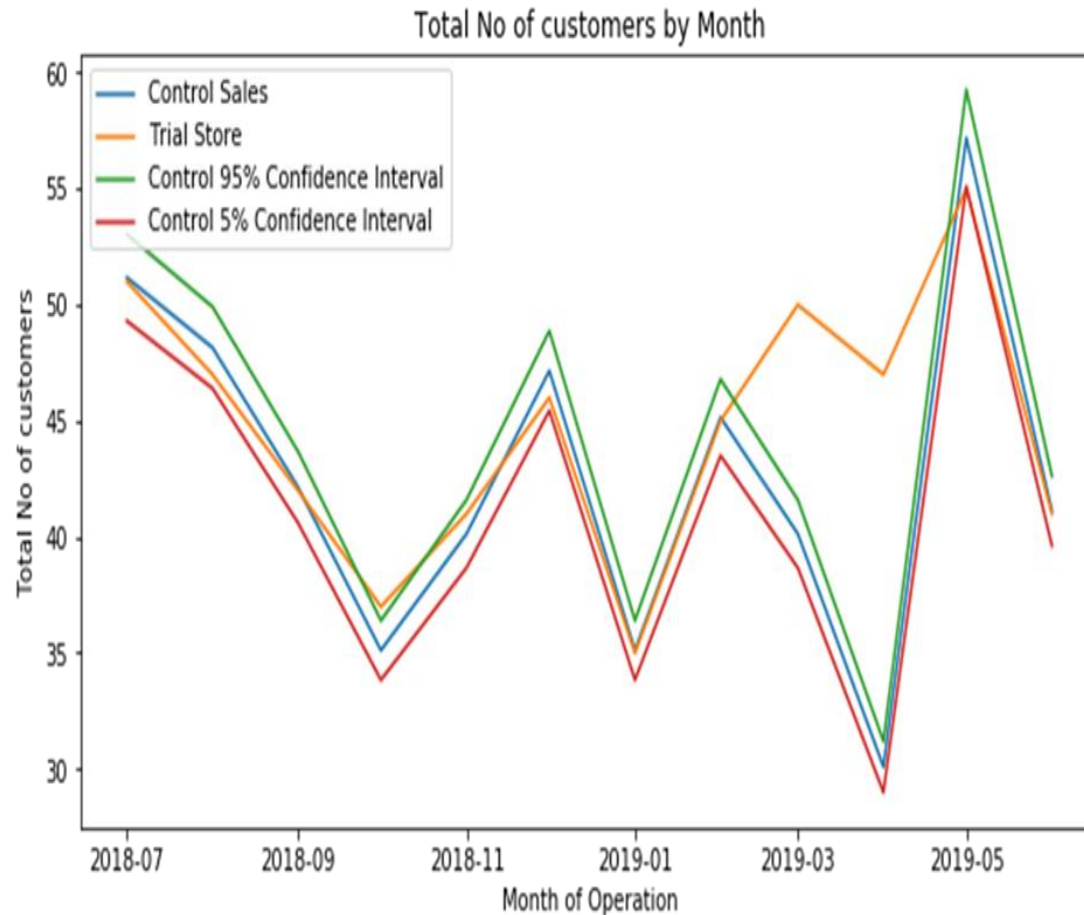
The client has selected store numbers 77, 86 and 88 as trial stores and want control stores to be established stores that are operational for the entire observation period.

We would want to match trial stores to control stores that are similar to the trial store prior to the trial period of Feb 2019 in terms of :

- Monthly overall sales revenue
- Monthly number of customers
- Monthly number of transactions per customer

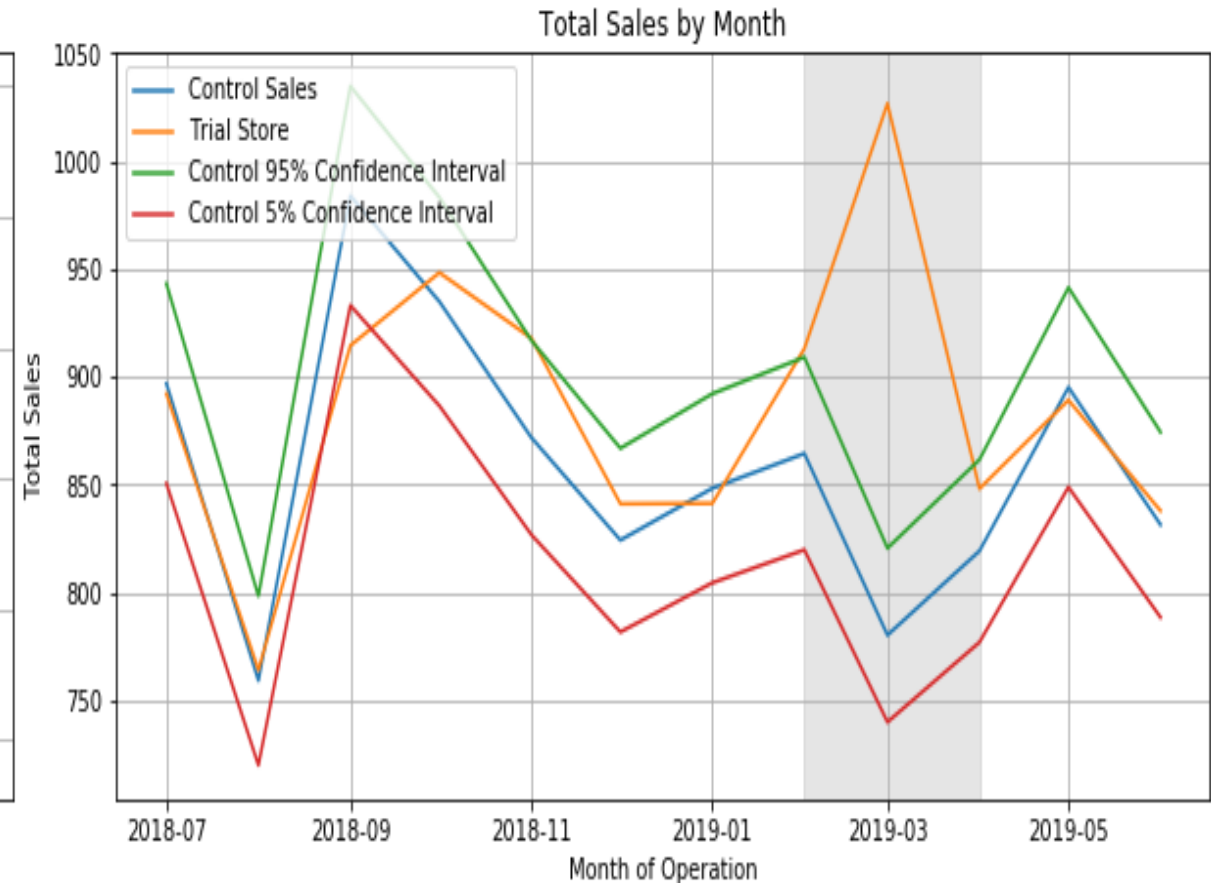
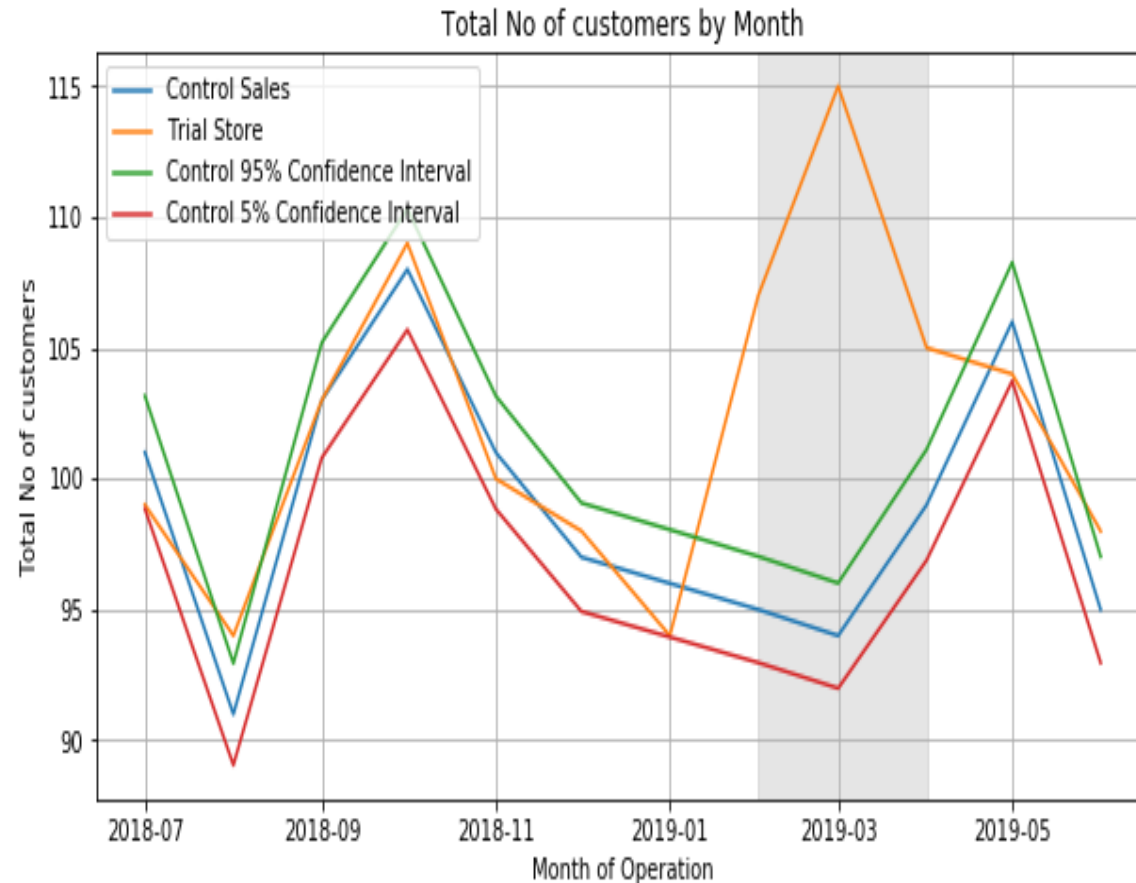
Assessment of Trial Store 77

We found that store 233 matches the trial store most



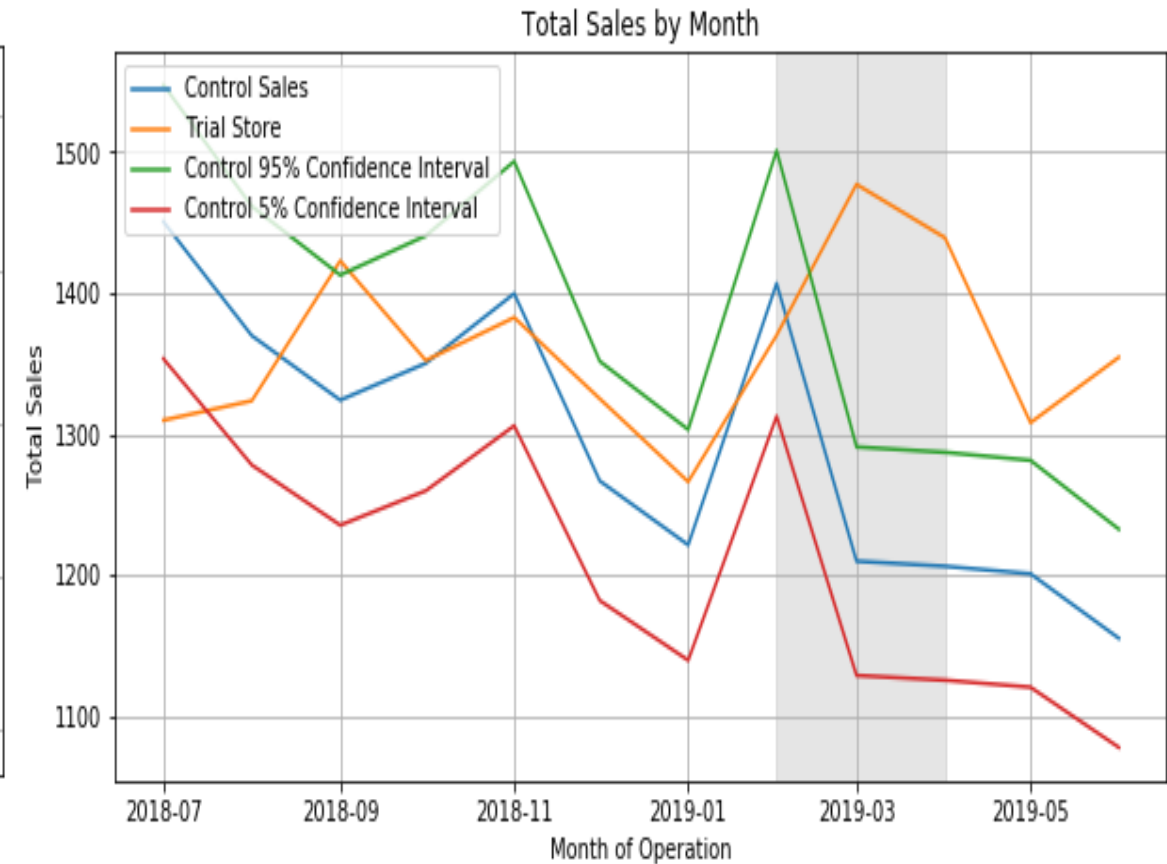
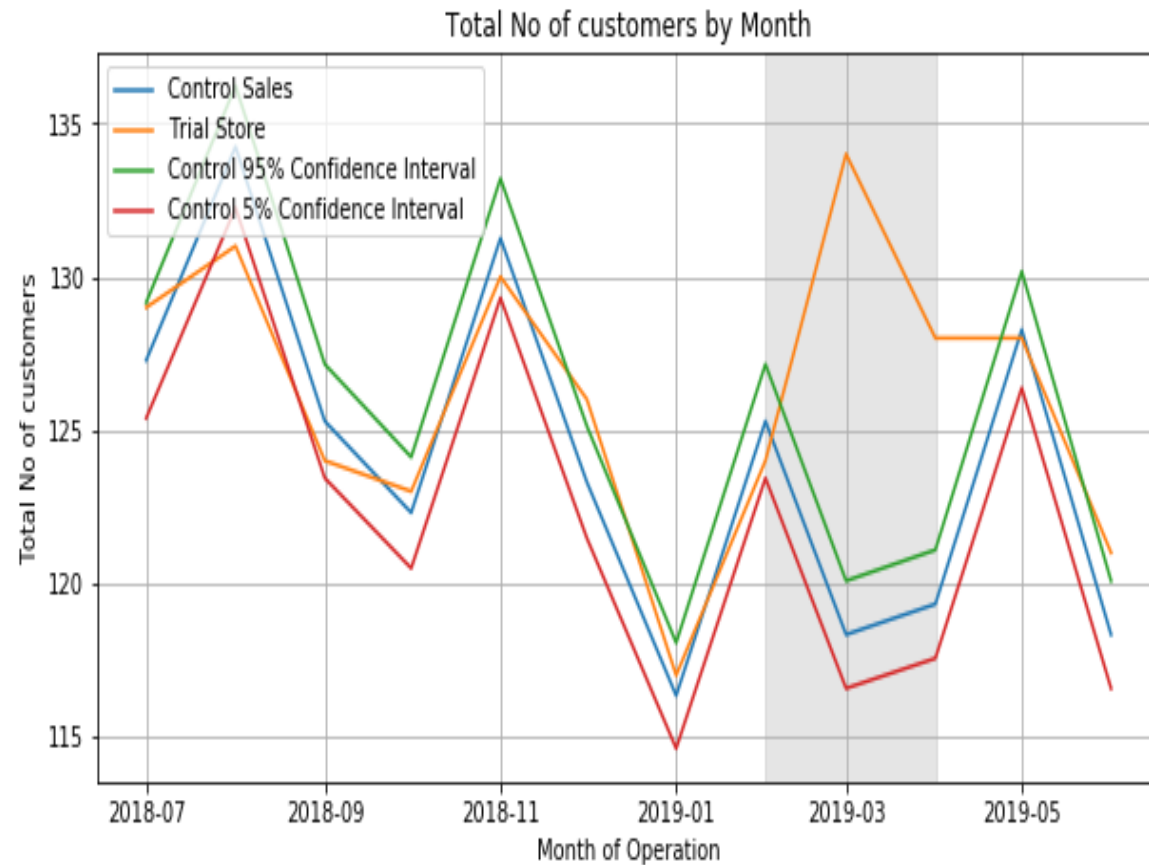
Assessment of Trial Store 86

We have found that store 155 matches the trial store most.



Assessment of Trial Store 88

We have found that store 237 matches the trial store most.



Summary

We've found control stores 233, 155, 237 for trial stores 77, 86 and 88 respectively.

The results for trial stores 77 and 88 during the trial period show a significant difference in at least two of the three trial months but this is not the case for trial store 86.

We can check with the client if the implementation of the trial was different in trial store 86 but overall, the trial shows a significant increase in sales..



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