June 2020

Category review: Chips

Retail Analytics

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

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.

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.

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Executive summary

01 Task 1

- The number of transactions grew strongly in the period before Christmas.
- Older Families-Budget have the most of total sales.
- Young Singles/Couples – Mainstream have the most customer.
- Older Families spend a lot for chips per customers.
- Young Singles/Couples – Mainstream is the segment willing to pay more per packet.

02 Task 2

- The store 233, 155 and 237 are the control store of the trial stores 77, 86 and 88, respectively.
- The trial stores 77 and 88 show a significant difference at two of the three trial months
- The trial only impacts the customer count of the trial store 86.

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01 Data Analysis

1. The number of transactions
2. Total sales amount
3. The number of customer
4. The number of packs per customer
5. The average price of chips per customer
6. Others

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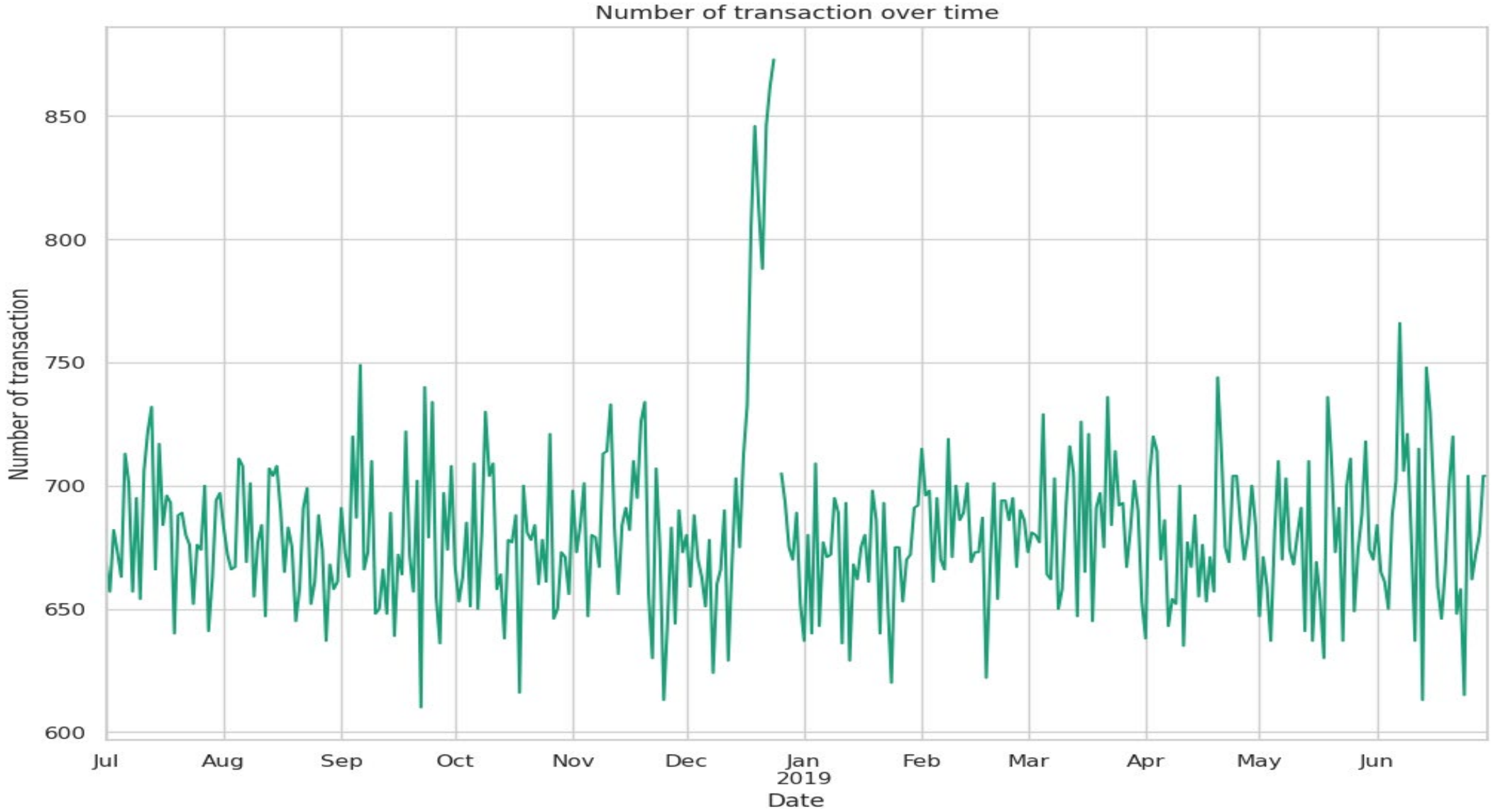
1. The number of transactions



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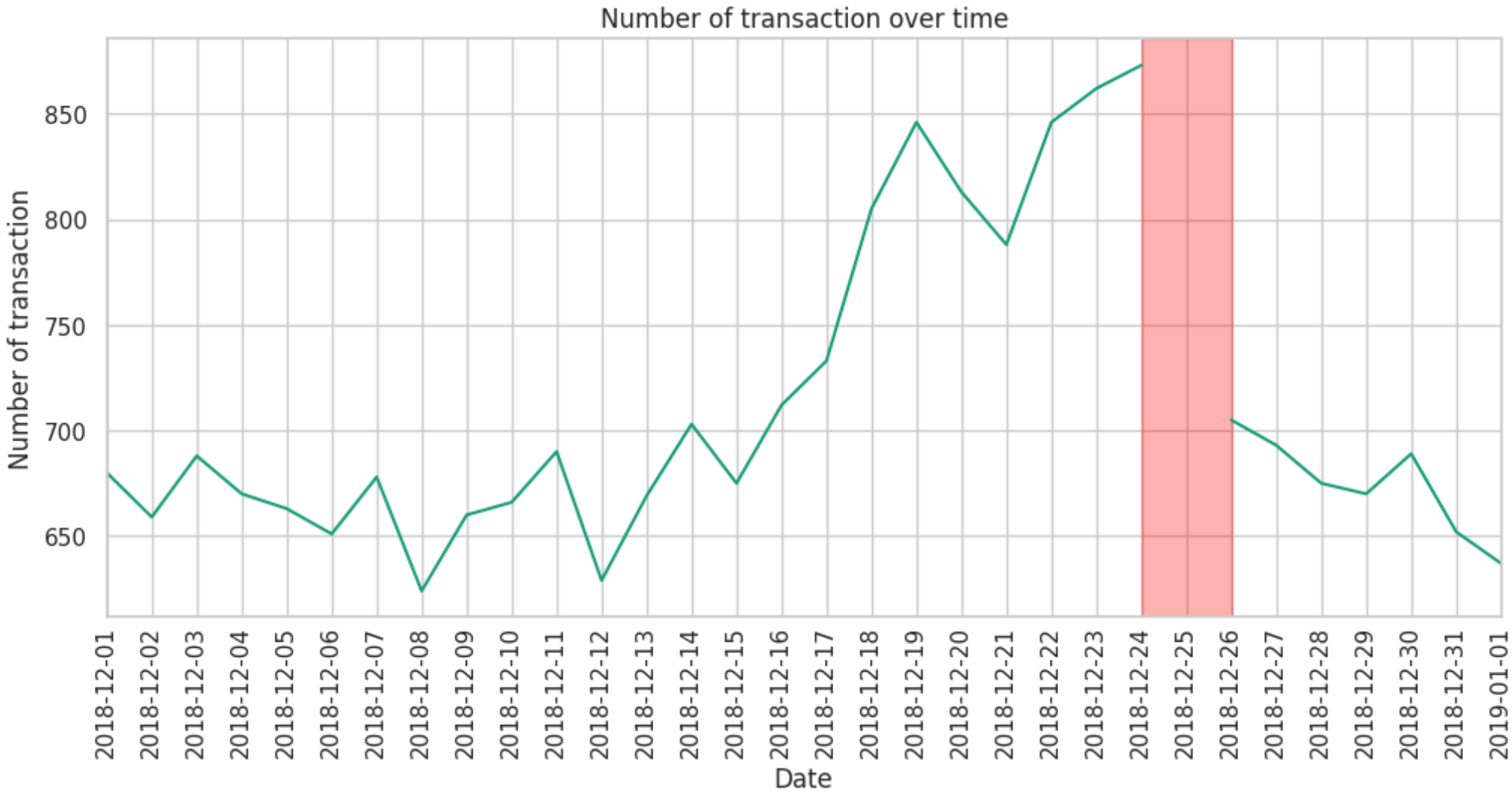

Sales peak in the weeks leading up to Christmas.

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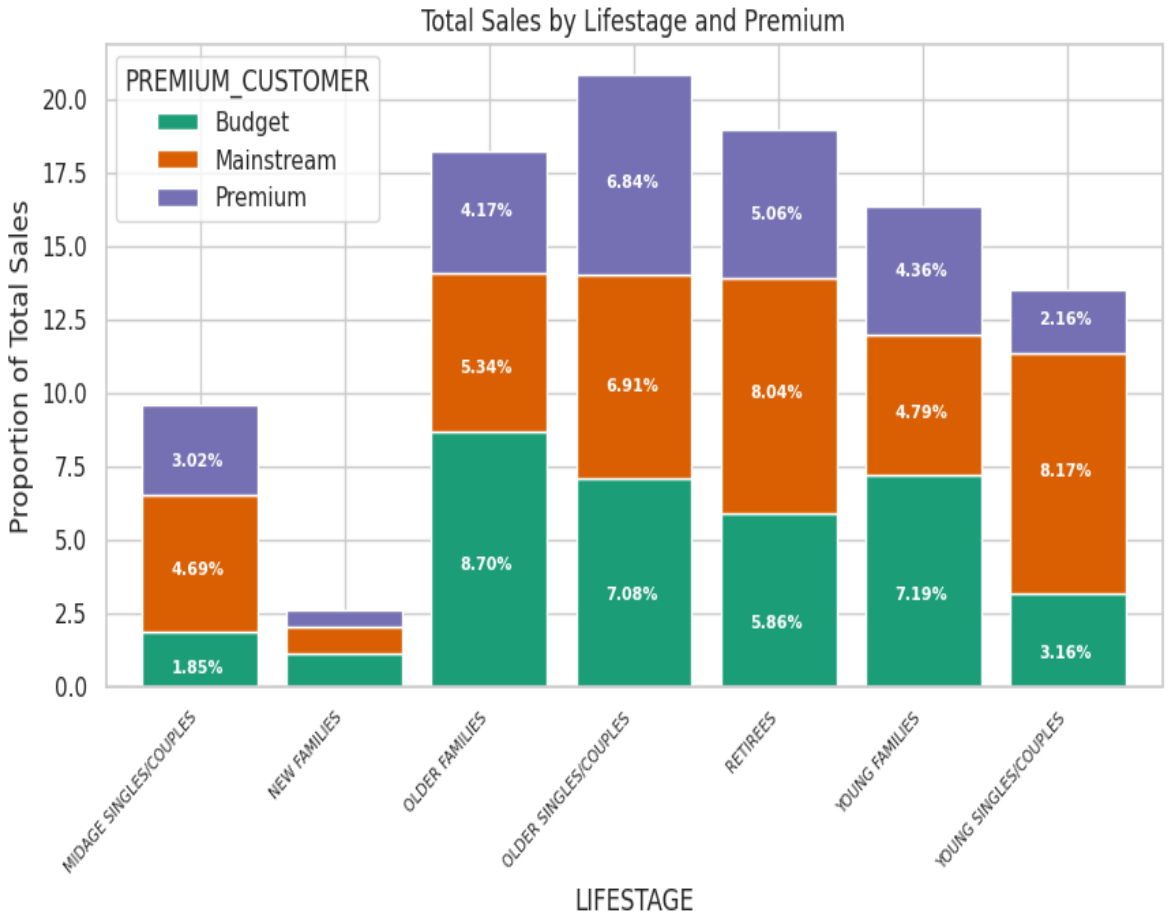
2. Total sales amount



	Total Sales
Older Families, Budget	$157647
Young Singles/Couples, Mainstream	$148030
Retirees, Mainstream	$145806

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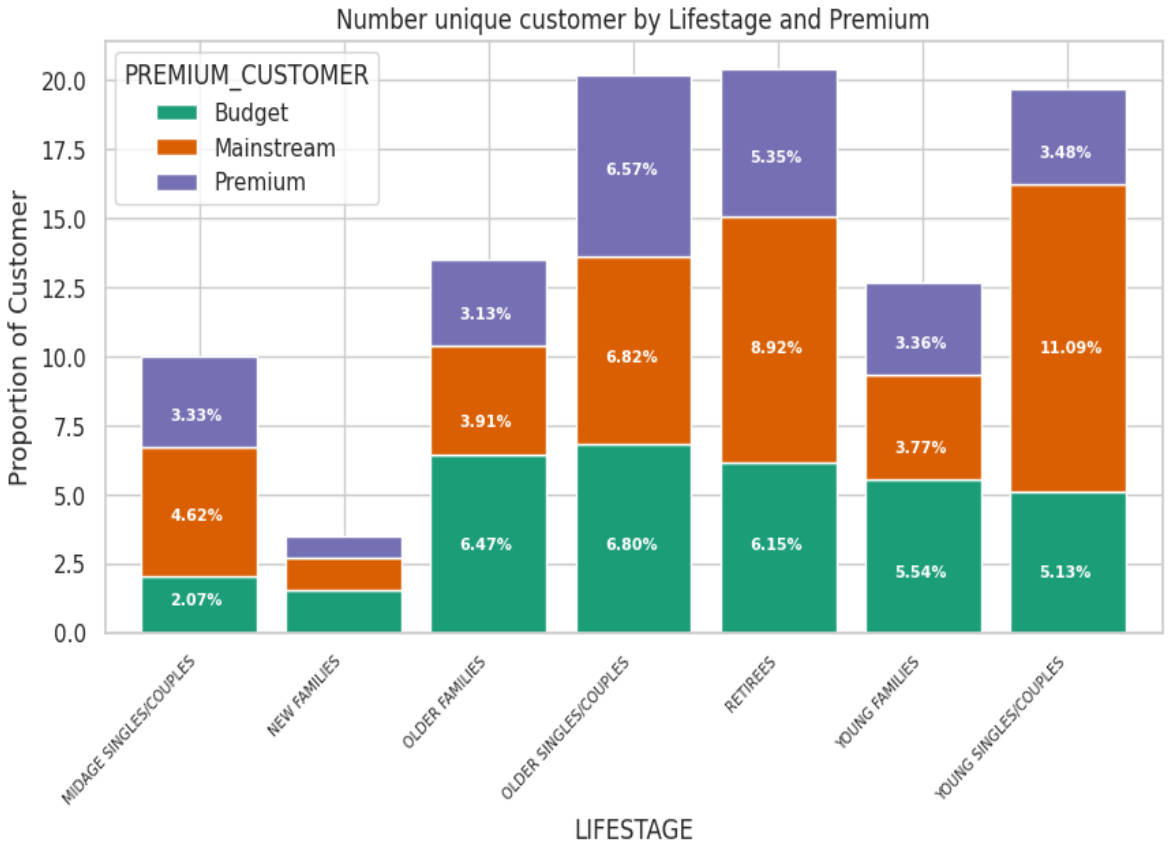
3. The number of customer



Number of Customers	
Young Singles/Couples, Mainstream	7921
Retirees, Mainstream	6369
Older Singles/ Couples, Mainstream	4866

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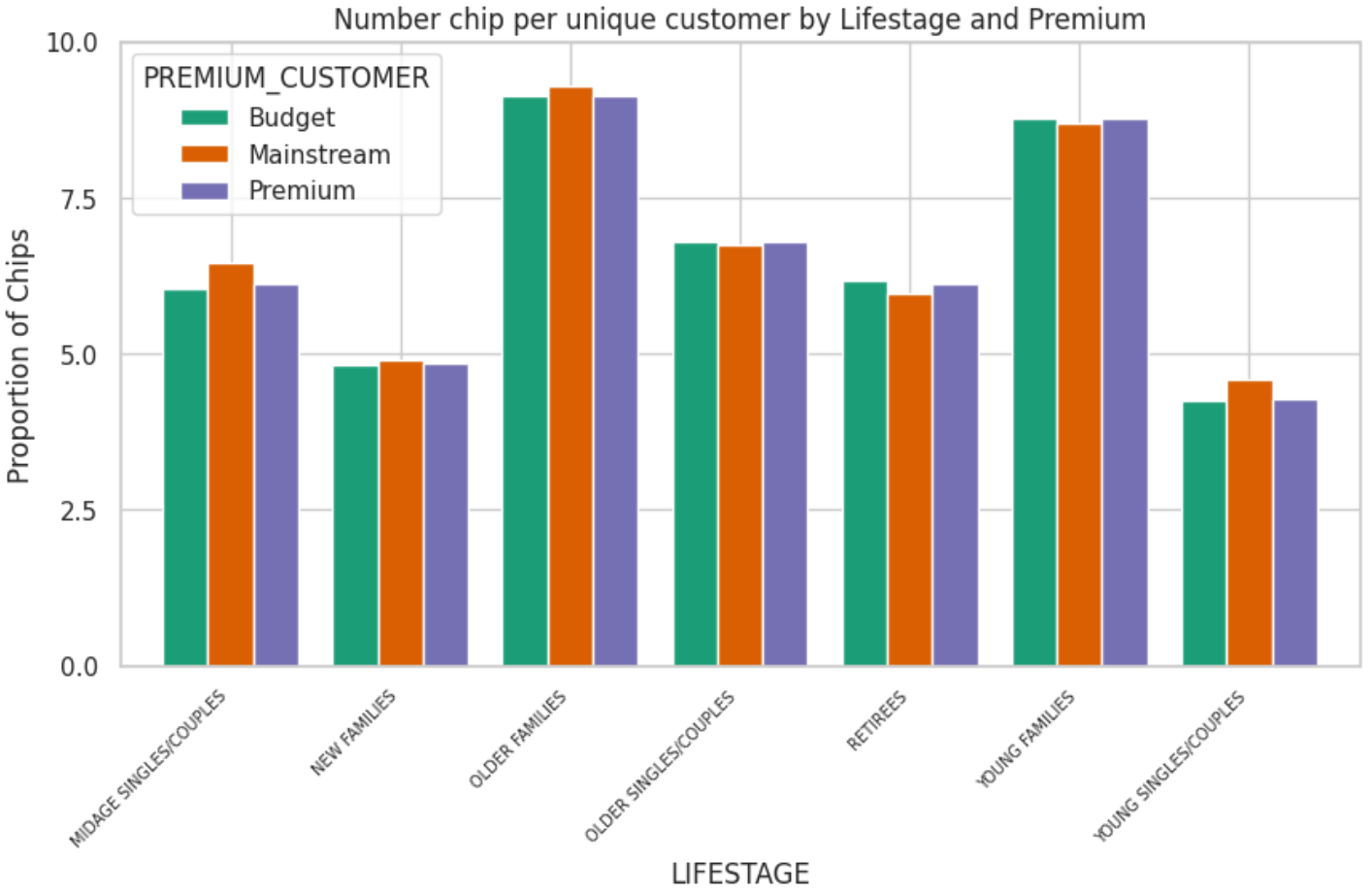
4. The number of Chips per customer



Number of Chips per Customer	
Older Families	9.17
Young Families	8.74
Older Singles/Couples	6.78

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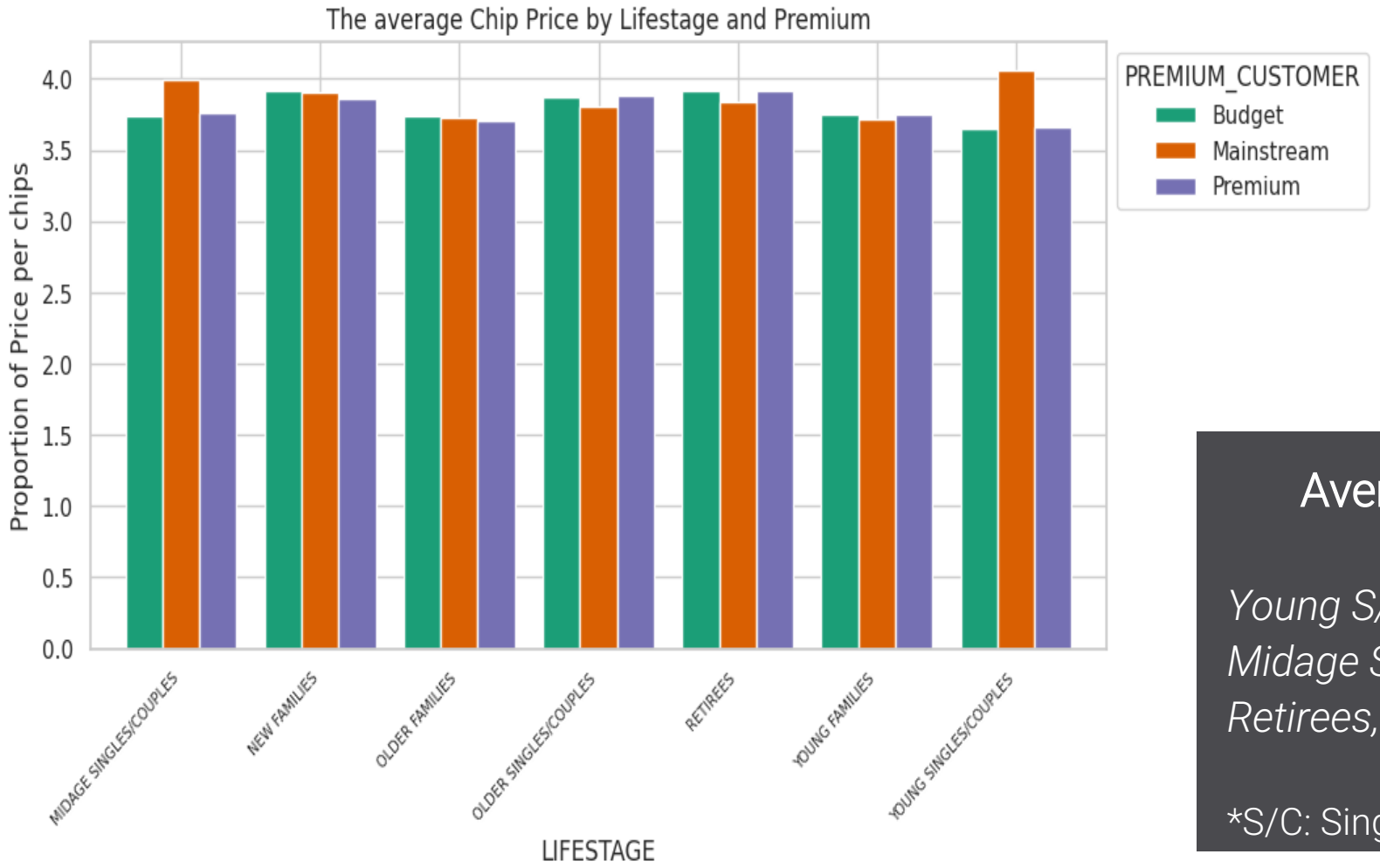
5. The average chips price



Average chip price per Customer

Young S/C, Mainstream	$4.06
Midage S/C, Mainstream	$3.99
Retirees, Budget	$3.92

*S/C: Singles/Couples

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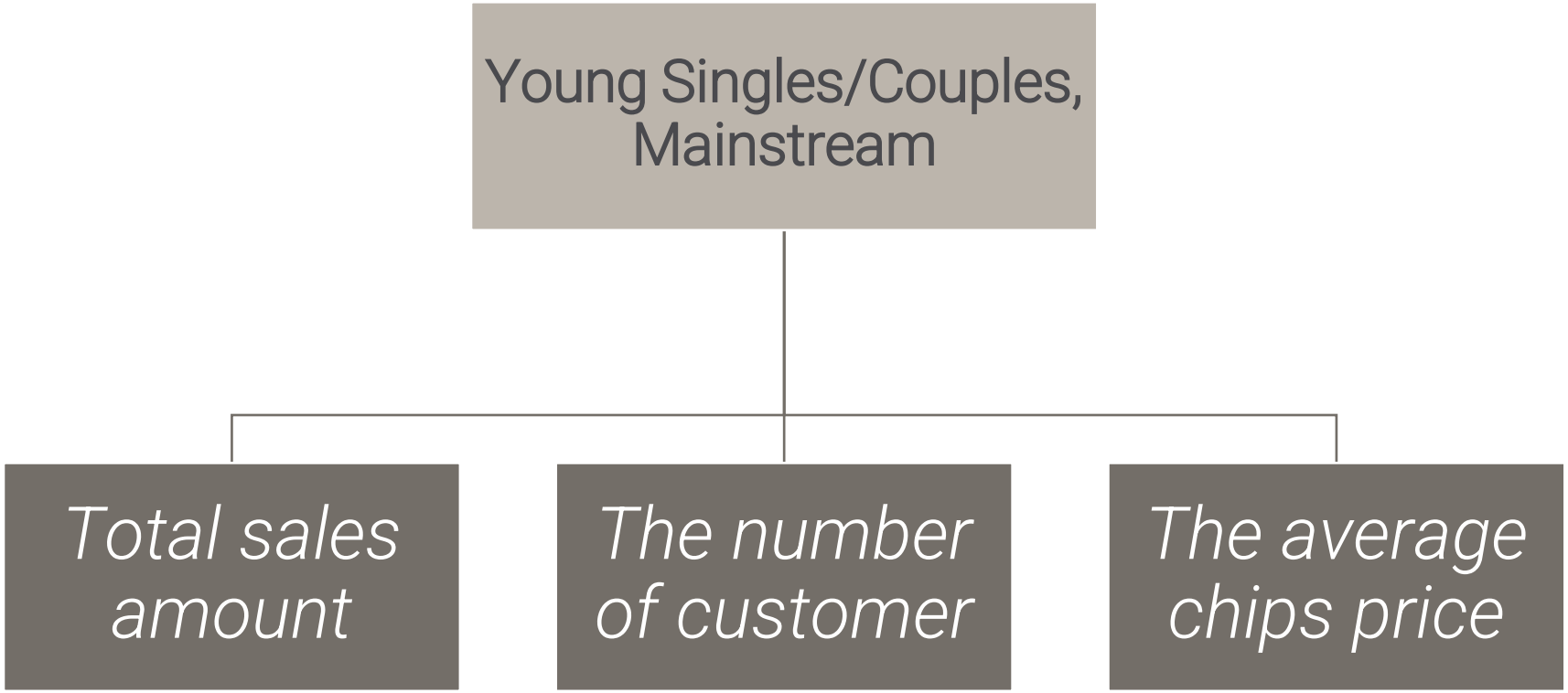
6. Other – Deep dive into specific customer segments for insights



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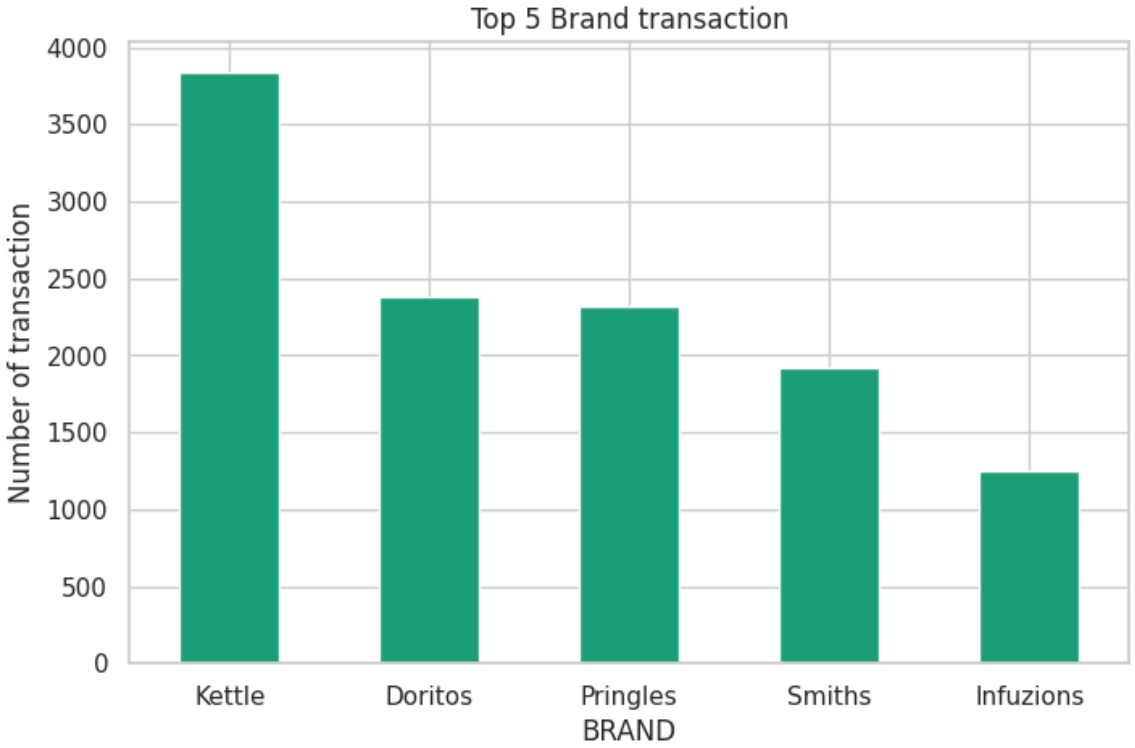

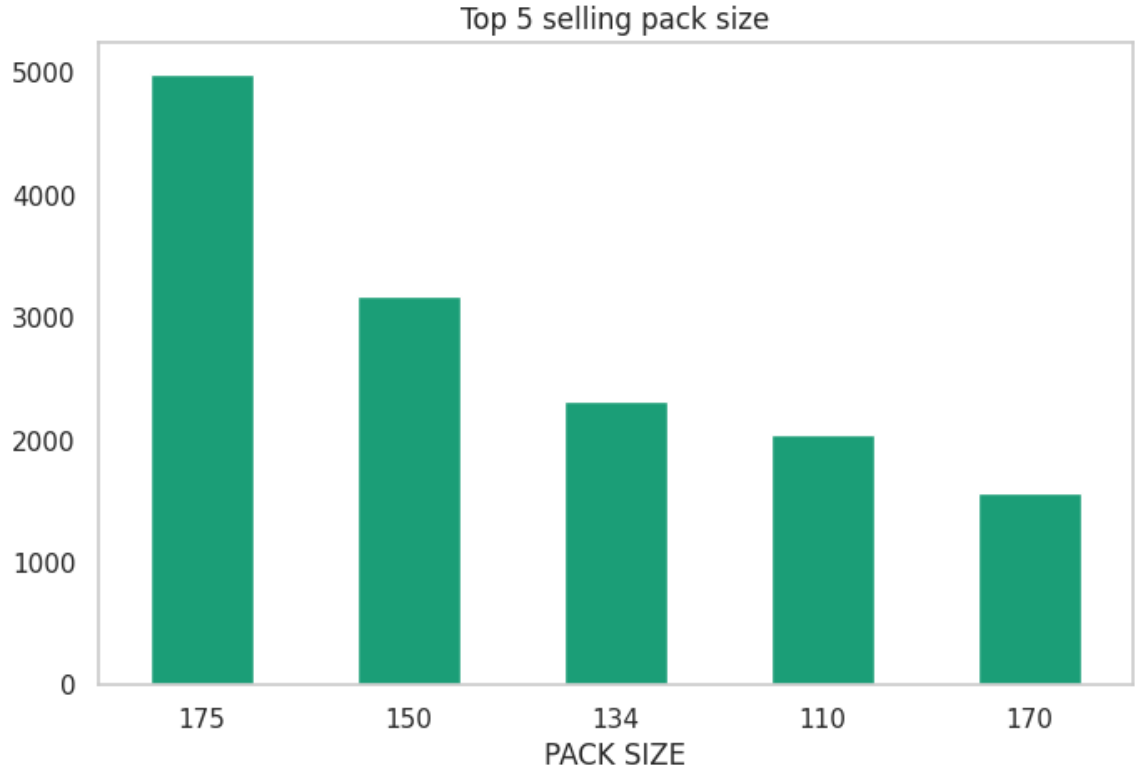

- Kettle is the top selling brand in Young Singles/Couples, Mainstream. The Kettle's transaction is 3844

- 175 is the top selling pack size in Young Singles/Couples, Mainstream. The transaction is 4997

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02

Trial store performance

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Explanation of the control store vs other stores

Trial Store	Control Store
77	233
86	155
88	237

Selection Criteria:
- Total sales
- Number of customers

Conditions for selecting control store:
- Have sales in one years
- Have highest correlation of two store
- Have highest astandardised magnitude distance of two store

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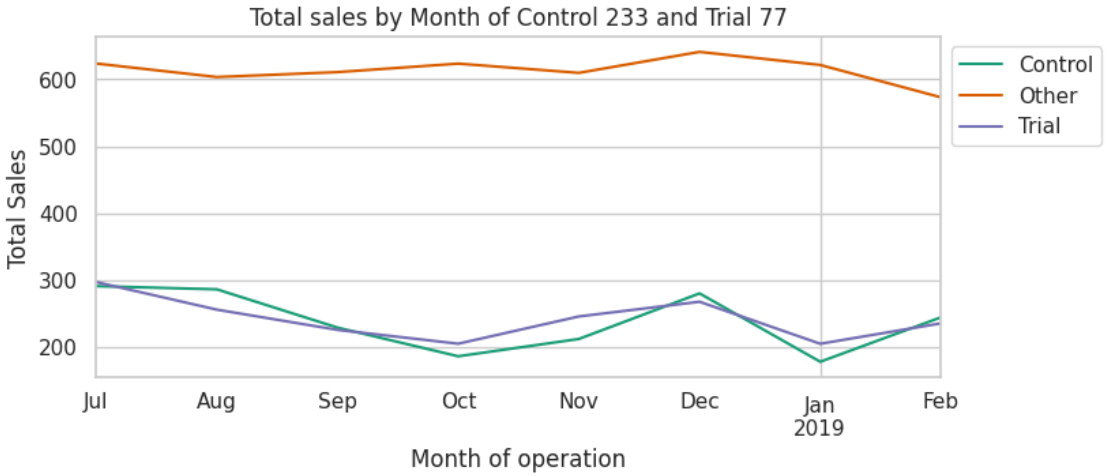
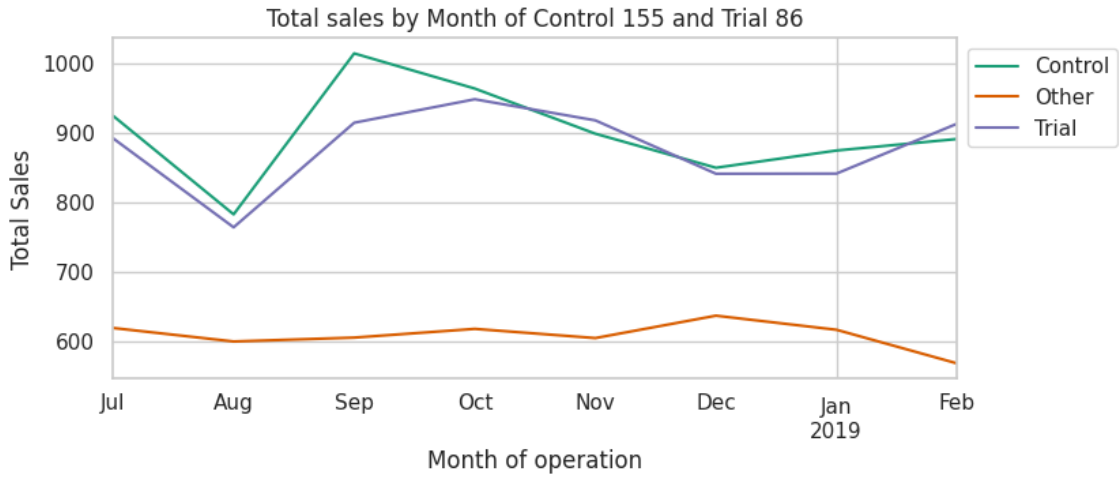
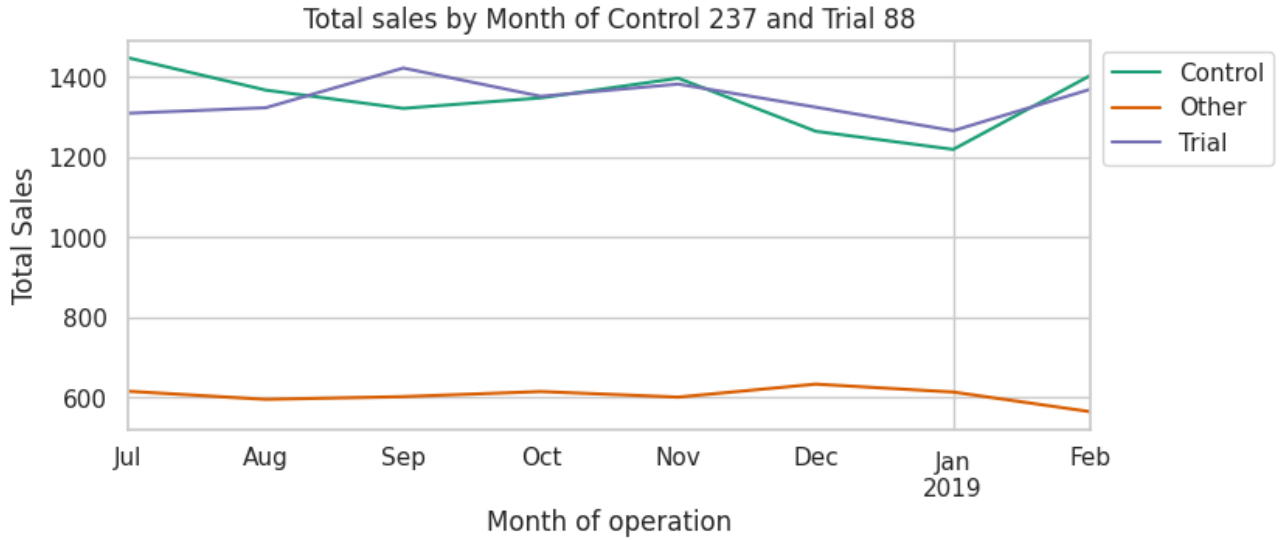
Call out of the performance in the trial store, determining if it was successful







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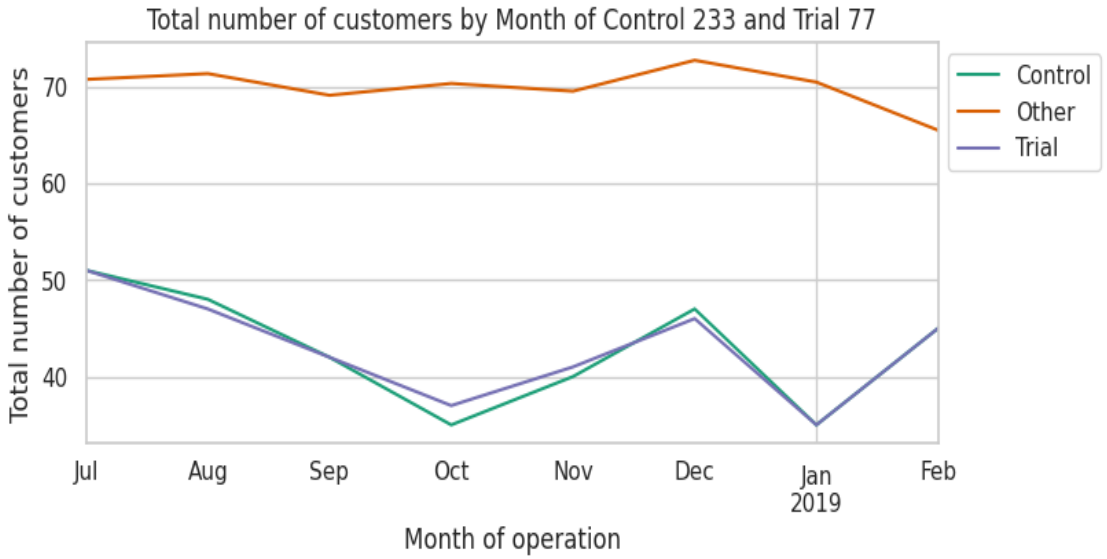

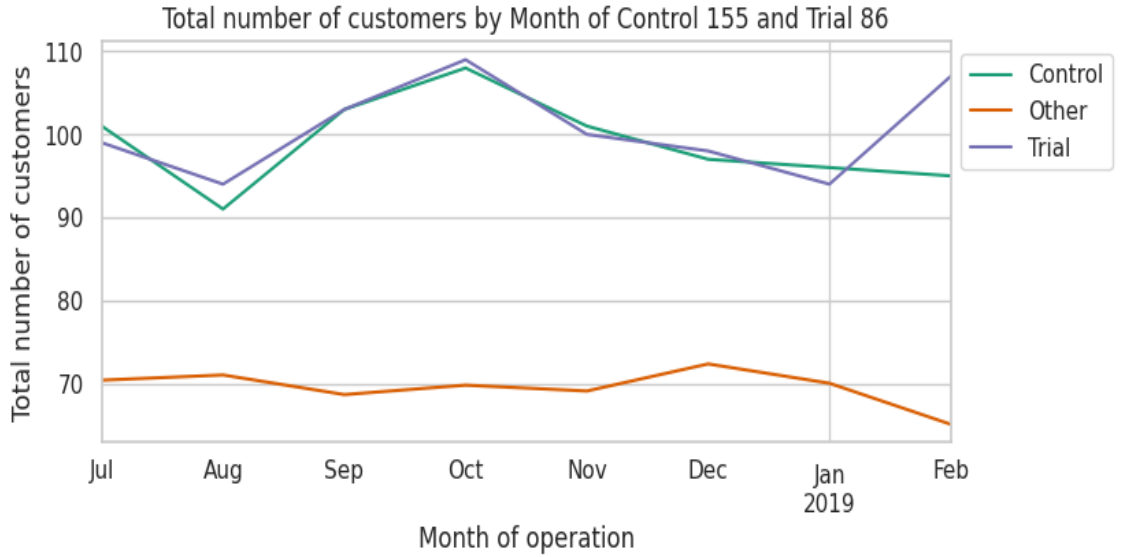

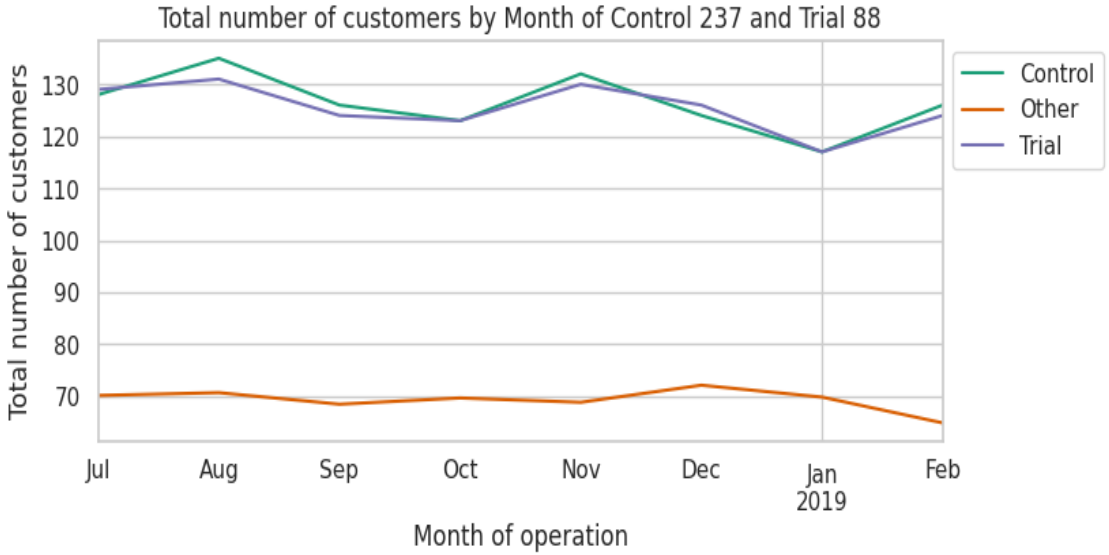

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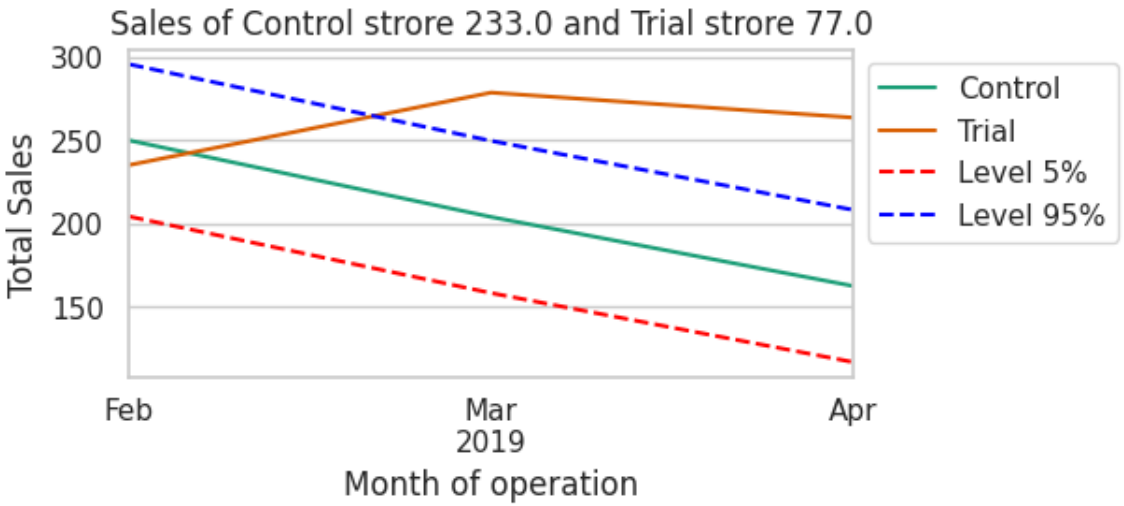
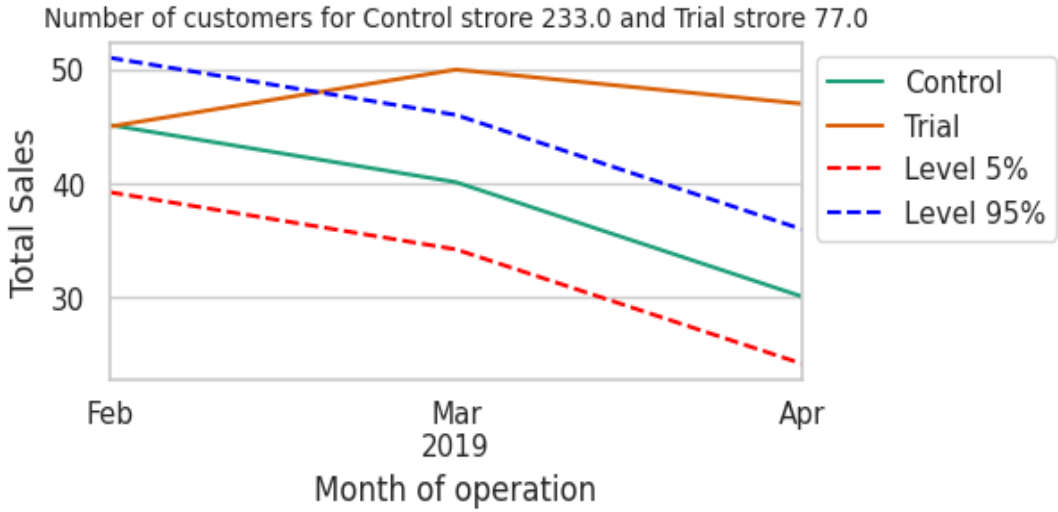
Compare Total Sale and Number of Customers of Trial Store 77





- Both graphs shows that the trial store has a statistically significant number more than the control store in March and April in 2019.
- In those months, the total sales increased significantly.

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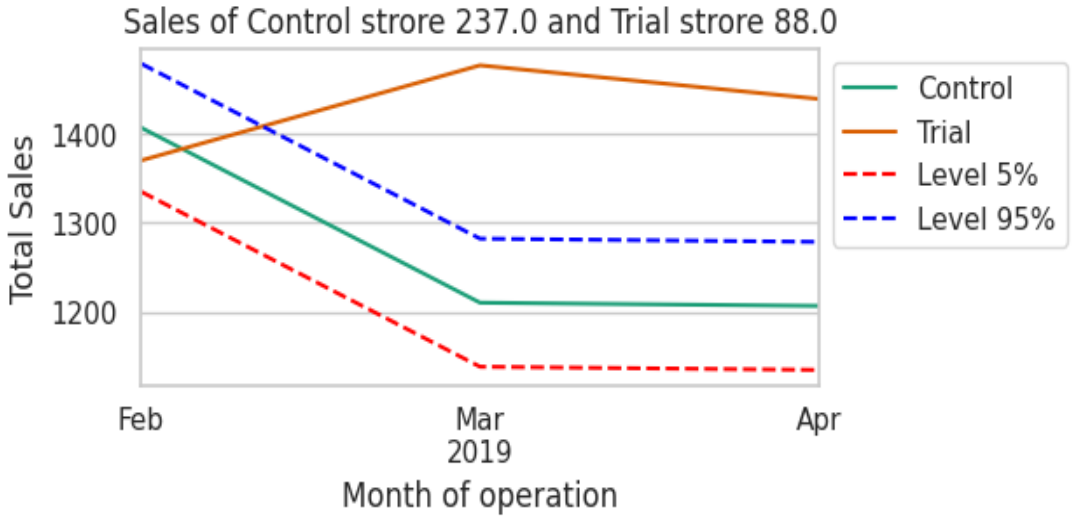
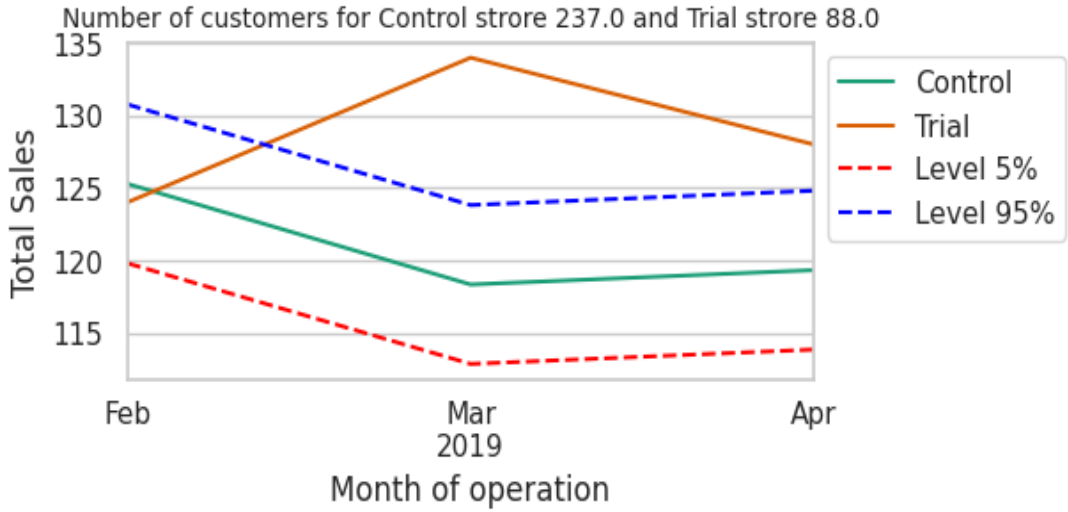
Compare Total Sale and Number of Customers of Trial Store 88





- Both graphs shows that the trial store has a statistically significant number more than the control store in March and April in 2019.
- In those months, the total sales increased significantly.

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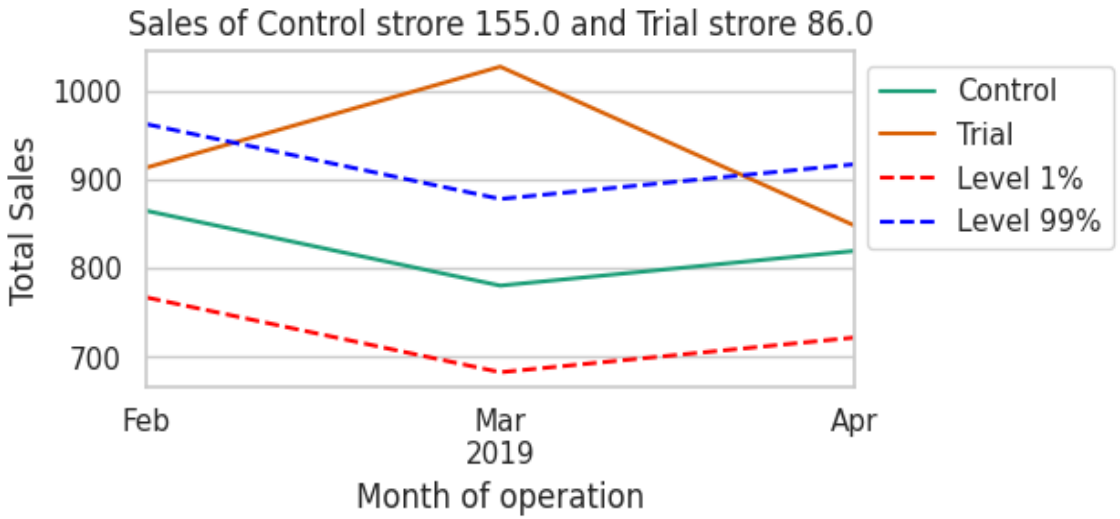
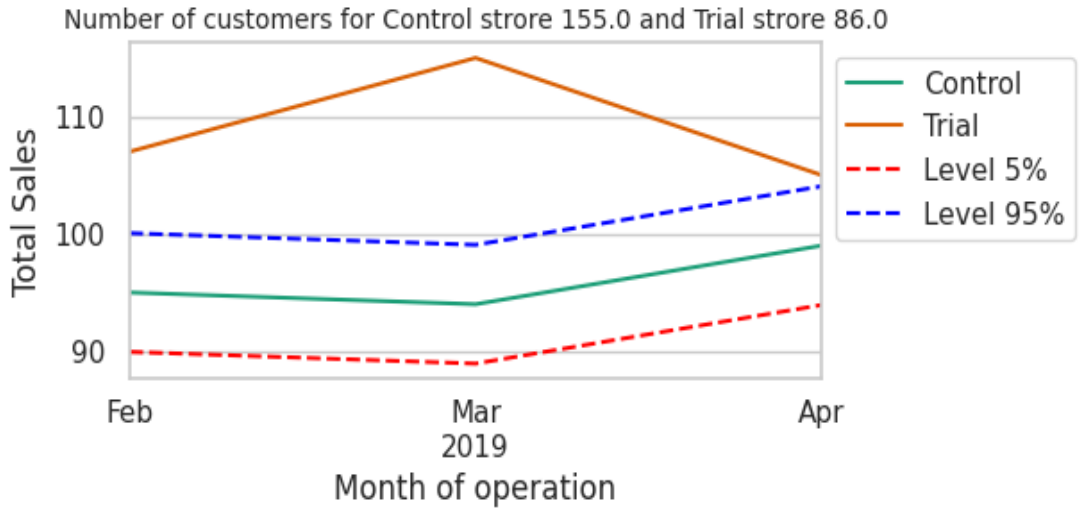
Compare Total Sale and Number of Customers of Trial Store 86





- With level at 1%, this is a month have total sales higher than the critical region.
- At Number of customers graph, the trial store has a statistically significant number more than the control store in 3 months.

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Conclusion

- *We've found control store 233, 155 and 237 for trial storers 77, 86 and 88 respectively*
- *The results for trial store 77 and 88 during the trial period show a significant difference in at least two of the three trial months.*
- *The trial period just affects the number of customers for trial 86.*

Recommendation

- *Stocks should be high in December before the Christmas*
- *It is necessary to pay attention to Young Singles/Couples, Mainstream because they are willing to spend a lot.*
- *Older Families, Retirees, Older Singles/ Couples and Midage Singles/Couples on Budget and Mainstream because they appear in almost every metrics.*

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