

December 31 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 confidence nature of this document.

Executive summary

01

Task 1

- 1.Kettles, Pringles, Doritos, Smiths are the brands which are loved by all customers of all age groups weather singles or couples. These brands are also affordable and generally preferred by Budget , Mainstream and Premium all 3 of them.
- 2.The sales to Young single/couple(mainstream),older families(budget), retirees(mainstream) is the highest.
- 3.The average quantity of chip packets bought by each category is almost the same.
- 4.Most sold chips brands for mainstream people are Kettles, Smiths, Doritos, Pringles respectively.

02

Task 2

- Both trial store 77 and 86 showed significant increase in Total Sales and Number of Customers during trial period. But not for trial store 88. Perhaps the client knows if there's anything about trial 88 that differs it from the other two trial.
- Overall the trial showed positive significant result.

01

Category

- Kettles, Pringles, Doritos, Smiths are the brands which are loved by all customers of all age groups weather singles or couples. These brands are also affordable and generally preferred by Budget , Mainstream and Premium all 3 of them.
- The sales to Young single/couple(mainstream),older families(budget), retirees(mainstream) is the highest.
- There are more Mainstream - young singles/couples and Mainstream - retirees who buy chips. This contributes to there being more sales to these customer segments but this is not a major driver for the Budget - Older families segment.
- The average quantity of chip packets bought by each category is almost the same.
- Young singles/couples(Mainstream), Retires(mainstream) have the largest number of unique customers.
- Young single/couples have large number of unique customers and the average price they spend upon each chip packet is also large and the average quantity of chip packets bought is also reasonable.

7. Midage singles/couples have lesser customers but their average price spent of chips packets and the quantity of chip packets bought is almost same as Young singles/couples.
8. New Families (premium, budget, mainstream) have the least number of customers and least number of unique customers but their average sale price is comparatively high.
9. The t-test results in a p-value of almost 0, i.e. the Total sales for mainstream, young and mid-age singles and couples are significantly higher than that of budget or premium, young and mid-age singles and couples.
10. Most sold chips brands for mainstream people are Kettles, Smiths, Doritos, Pringles respectively.

In depth insights about Young(singles/couples) as they are major customers.

['French','Sunbites','Burger','Cheetos','Cheezels','Tyrrells','CCs','Grain Waves','Twisties','Tostitos','Natural Chip Co','Cobs','Infuzions','Thins','Woolworths','Red','Doritos','Pringles','Smiths','Kettle']

From the least sold brands to the most sold brands for Young (single/couples) PREMIUM.

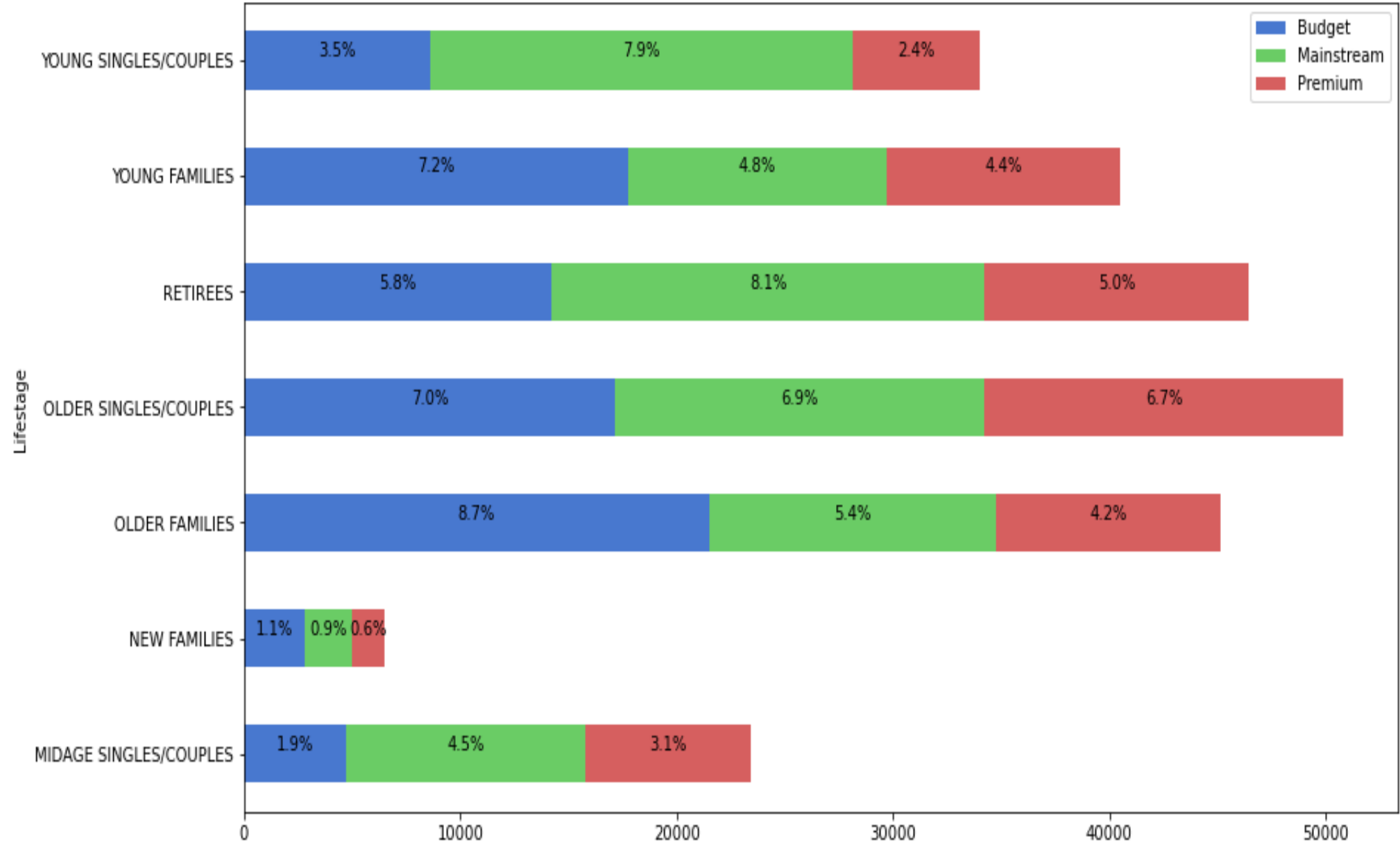
['Sunbites','Burger','Snbts','French','Cheetos','CCs','Cheezels','Natural Chip Co','Woolworths','Tyrrells','Grain Waves','Cobs','Red','Tostitos','Twisties','Thins','Infuzions','Smiths','Pringles','Doritos','Kettle']

From the least sold brands to the most sold brands for Young (single/couples) MAINSTREAM.

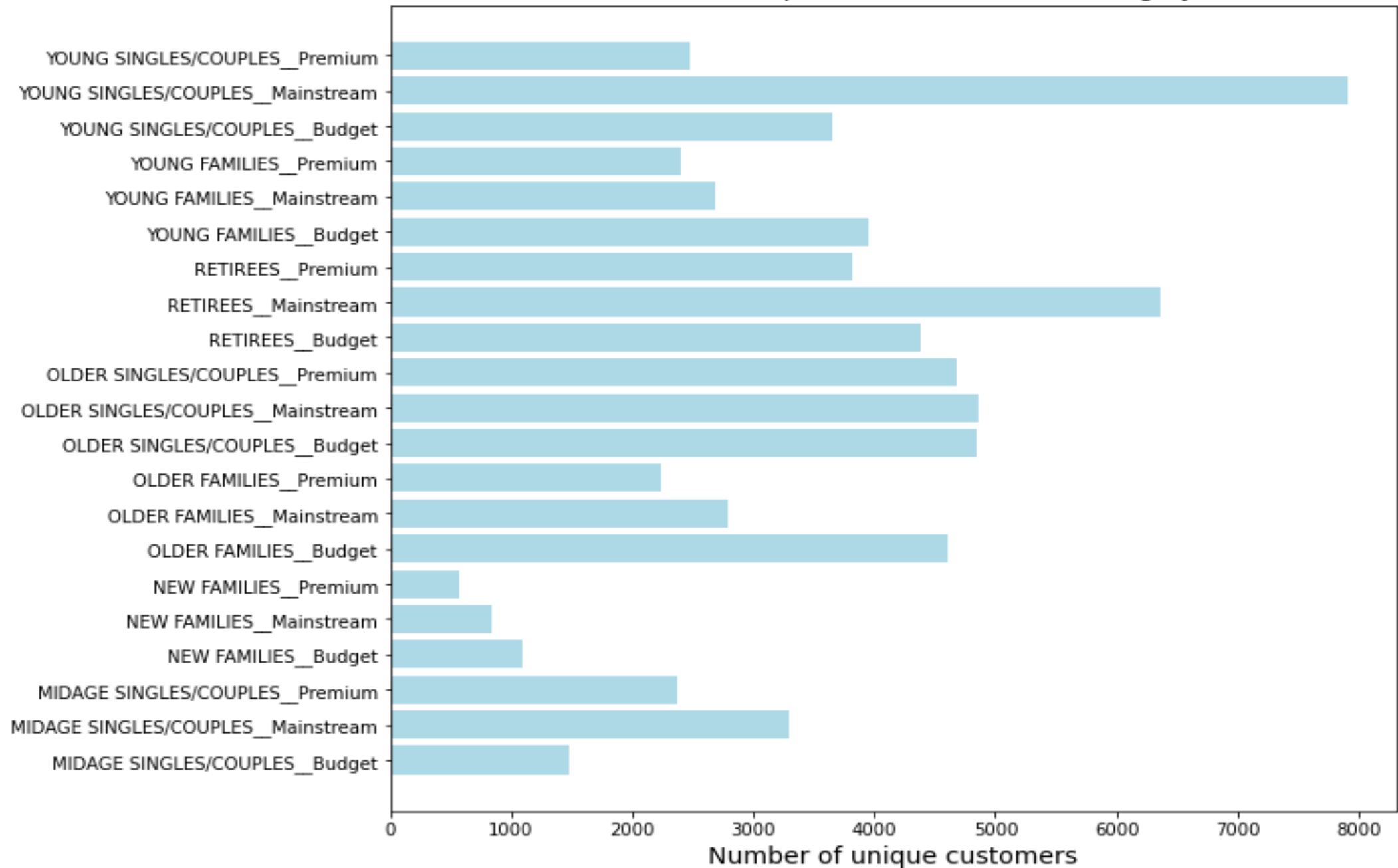
['Burger','Sunbites','Snbts','French','Cheetos','Cheezels','Tyrrells','CCs','Grain Waves','Tostitos','Cobs','Twisties','Natural Chip Co','Infuzions','Thins','Woolworths','Red','Doritos','Pringles','Smiths','Kettle']

Most frequently bought pack size for young budget, young mainstream, young premium, all Mainstream people is 175g. The histogram trends for pack sizes of all groups is almost same(Tested ones with max customers).Hence we can say that the sale of packets of 175g is highest for all groups.

Percentage of premium, budget and mainstream customers



Number of uniques customers in each category



02

Trial store performance

We can see that Trial store 77 sales for Feb, March, and April exceeds 95% threshold of control store. Same goes to store 86 sales for all 3 trial months.

Trial store 77: Control store 233

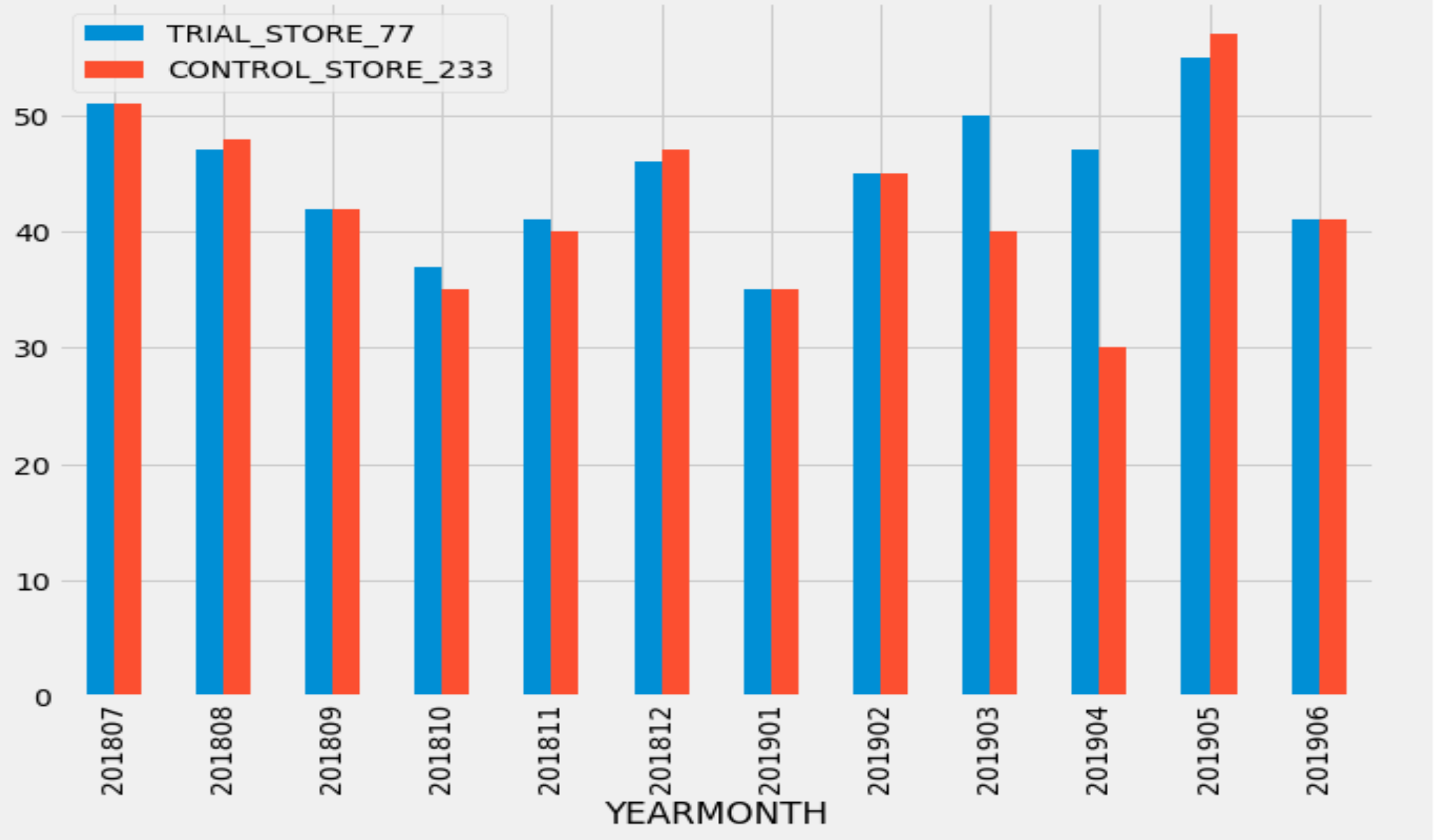
Trial store 86: Control store 155

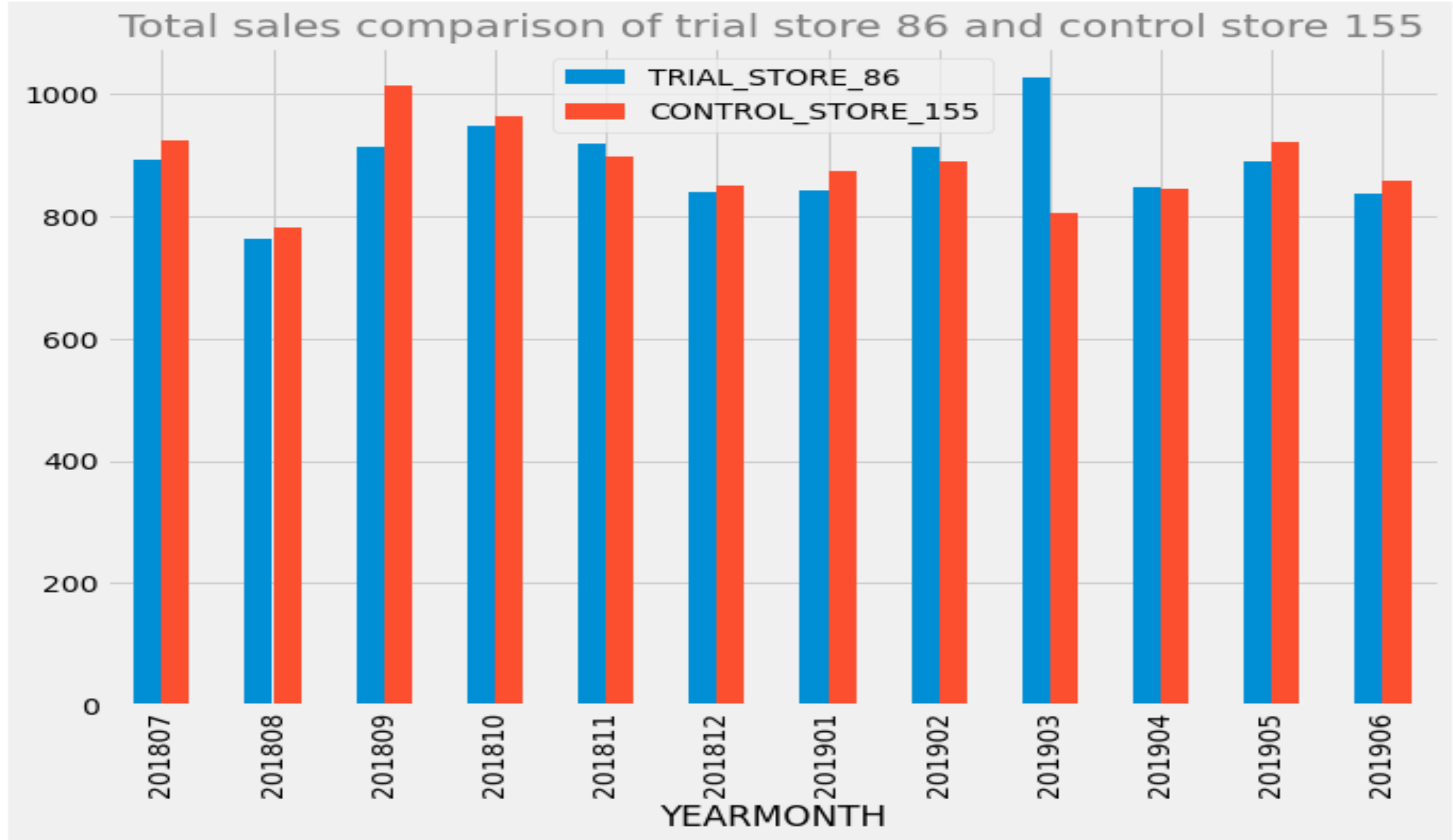
Trial store 88: Control store 40

Both trial store 77 and 86 showed significant increase in Total Sales and Number of Customers during trial period. But not for trial store 88. Perhaps the client knows if there's anything about trial 88 that differs it from the other two trial.

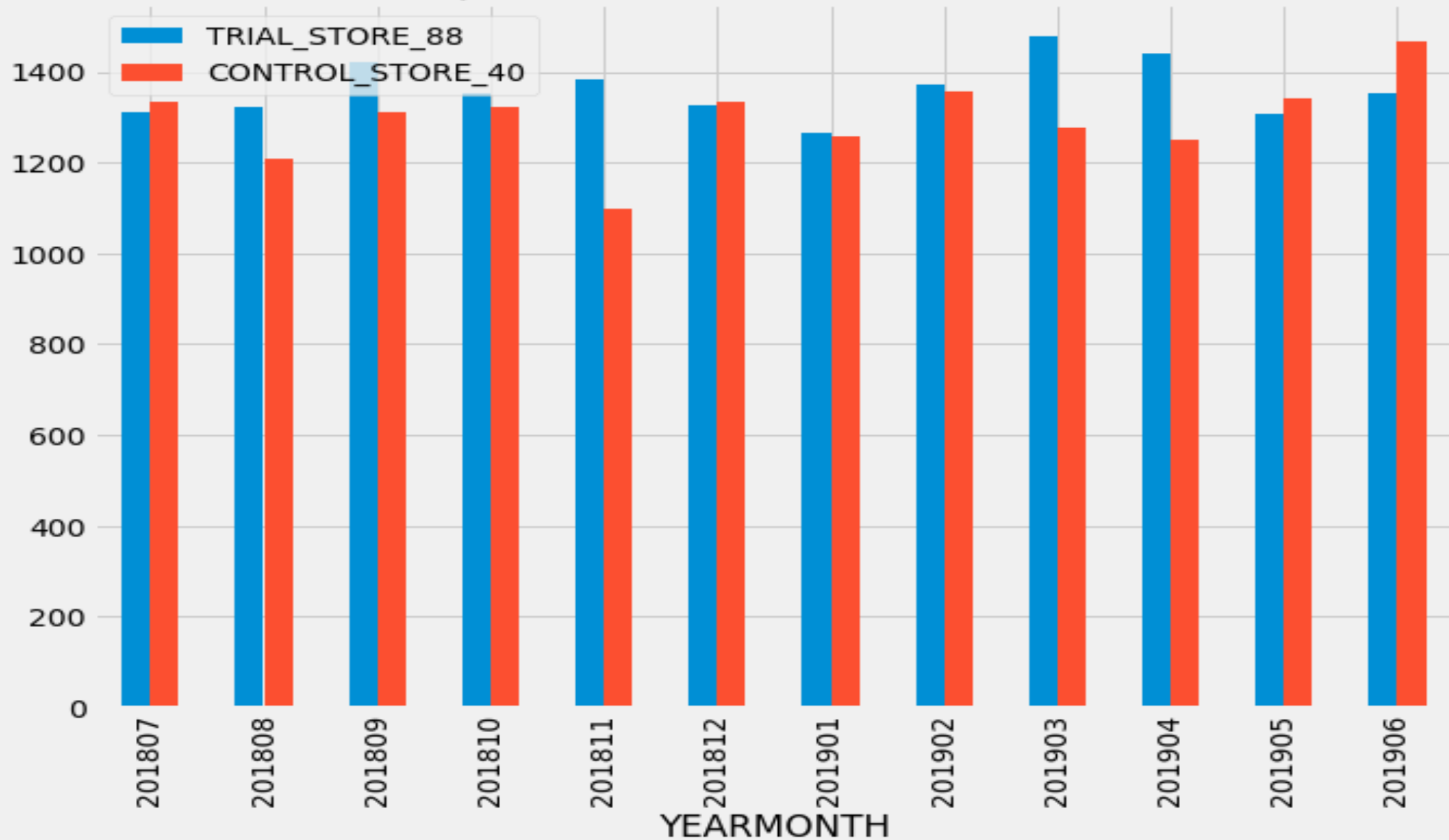
Overall the trial showed positive significant result.

Total customers comparison of trial store 77 and control store 233

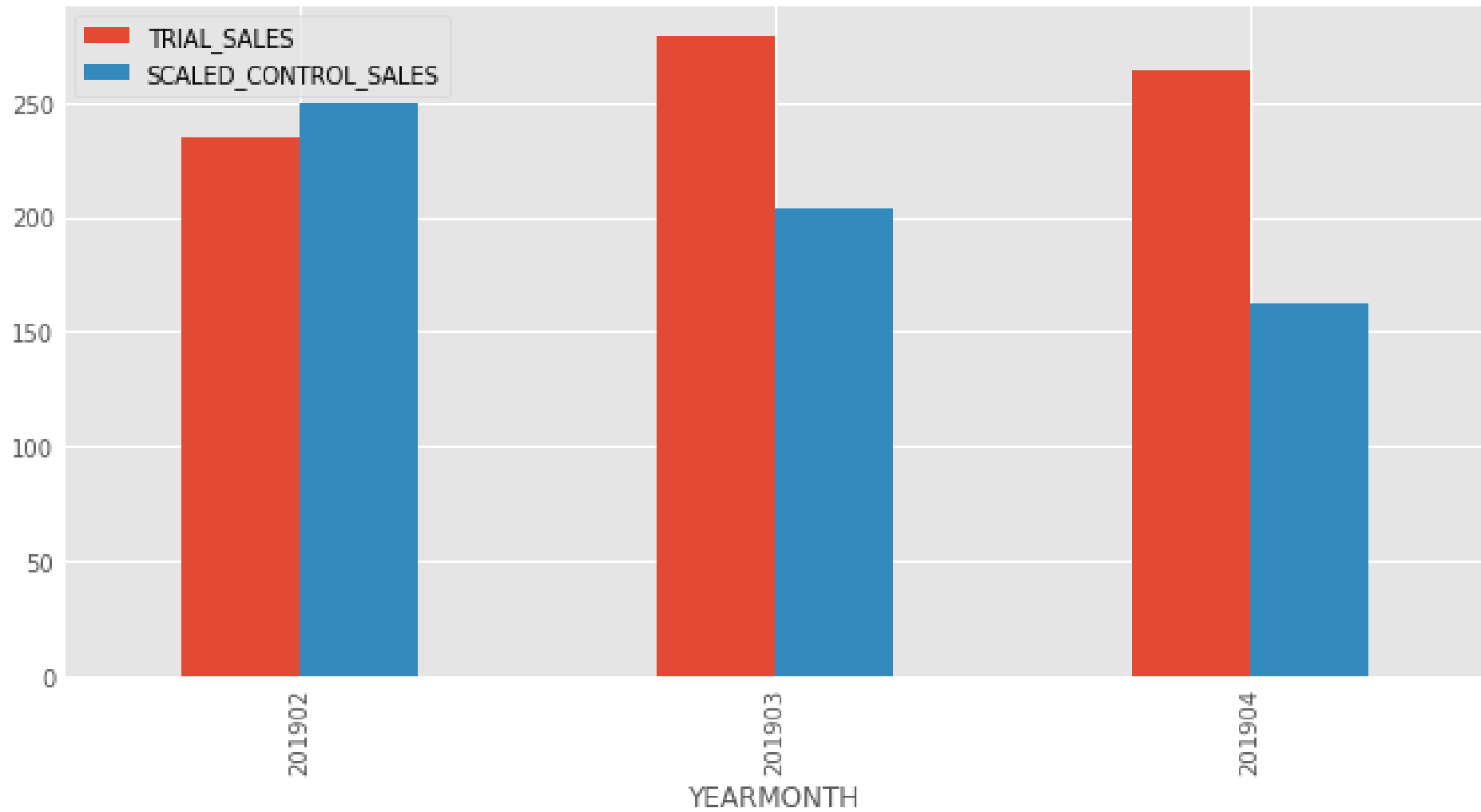




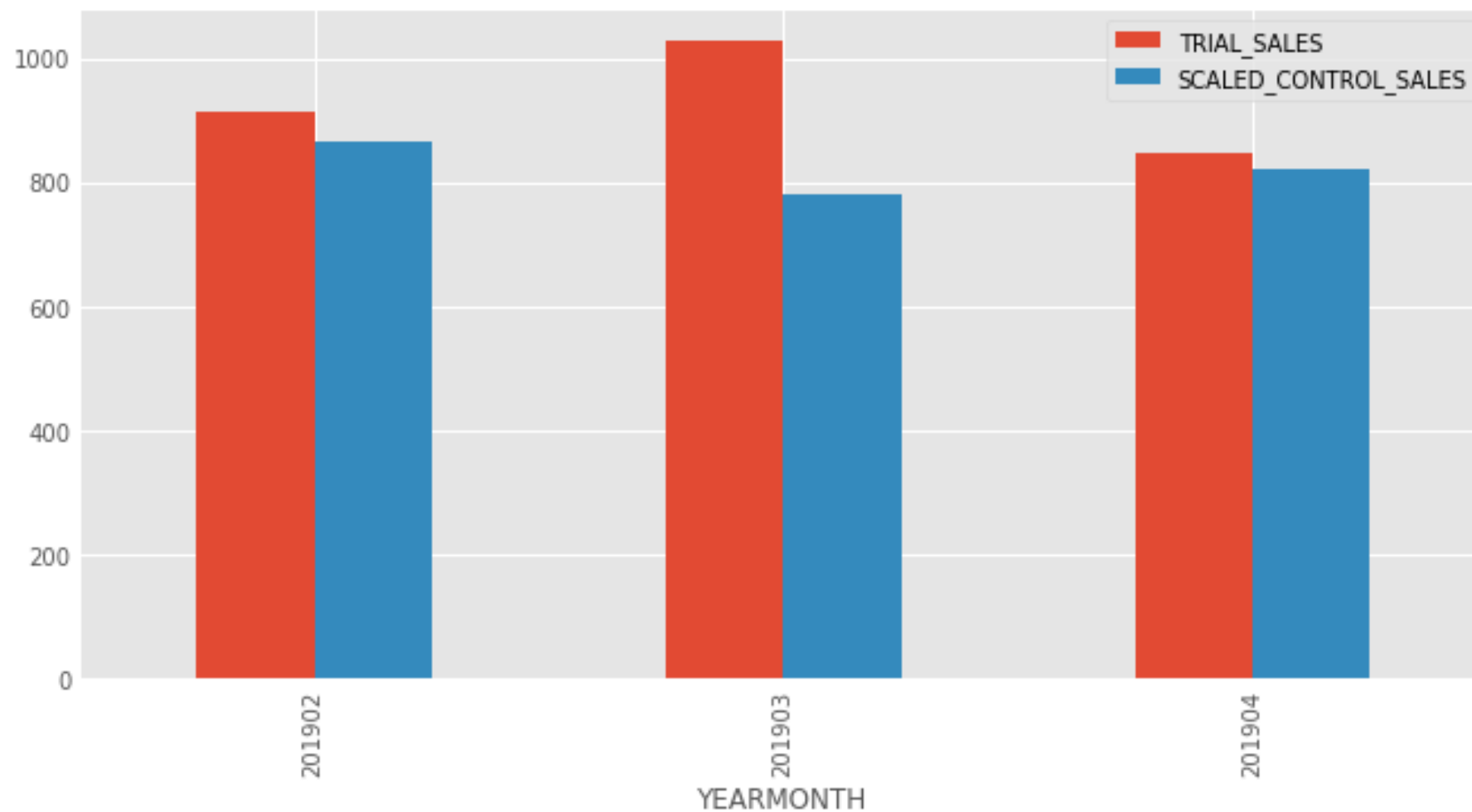
Total sales comparison of trial store 88 and control store 40



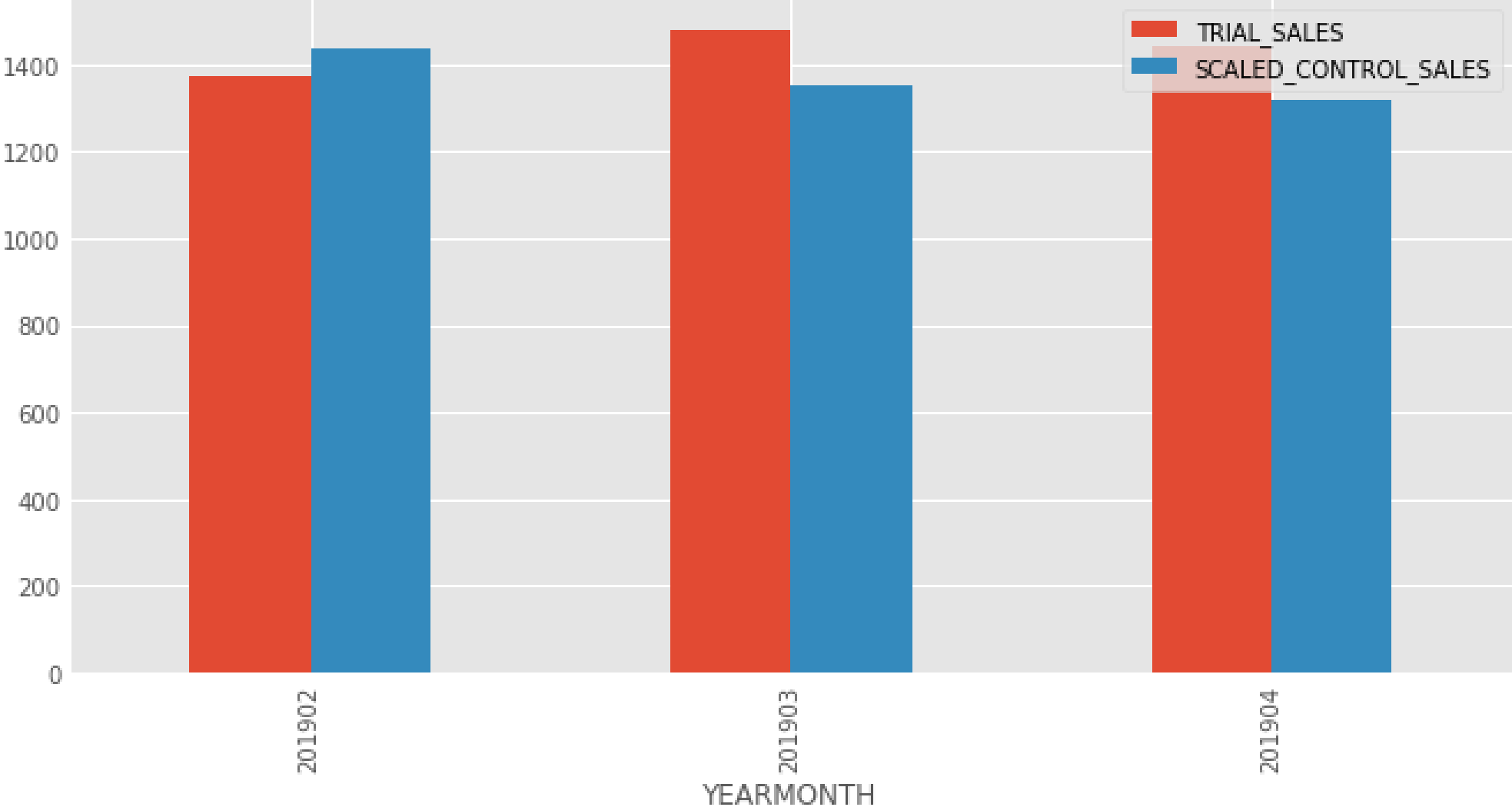
Sales of Trial store 77 and scaled sales of Control store 233



Sales of Trial store 86 and scaled sales of Control store 155



Sales of Trial store 88 and scaled sales of Control store 40





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