June 2020

Category review: Chips

Retail Analytics

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Classification: Confidential

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

Sales have mainly been due to Budget - older families, Mainstream - young singles/couples, and Mainstream - retirees shoppers. We found that the high spend in chips for mainstream young singles/couples and retirees is due to there being more of them than other buyers. Mainstream, midage and young singles and couples are also more likely to pay more per packet of chips. This is indicative of impulse buying behavior. We've also found that Mainstream young singles and couples are 23% more likely to purchase Tyrrells chips compared to the rest of the population.

02 Task 2

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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01

Task - 1

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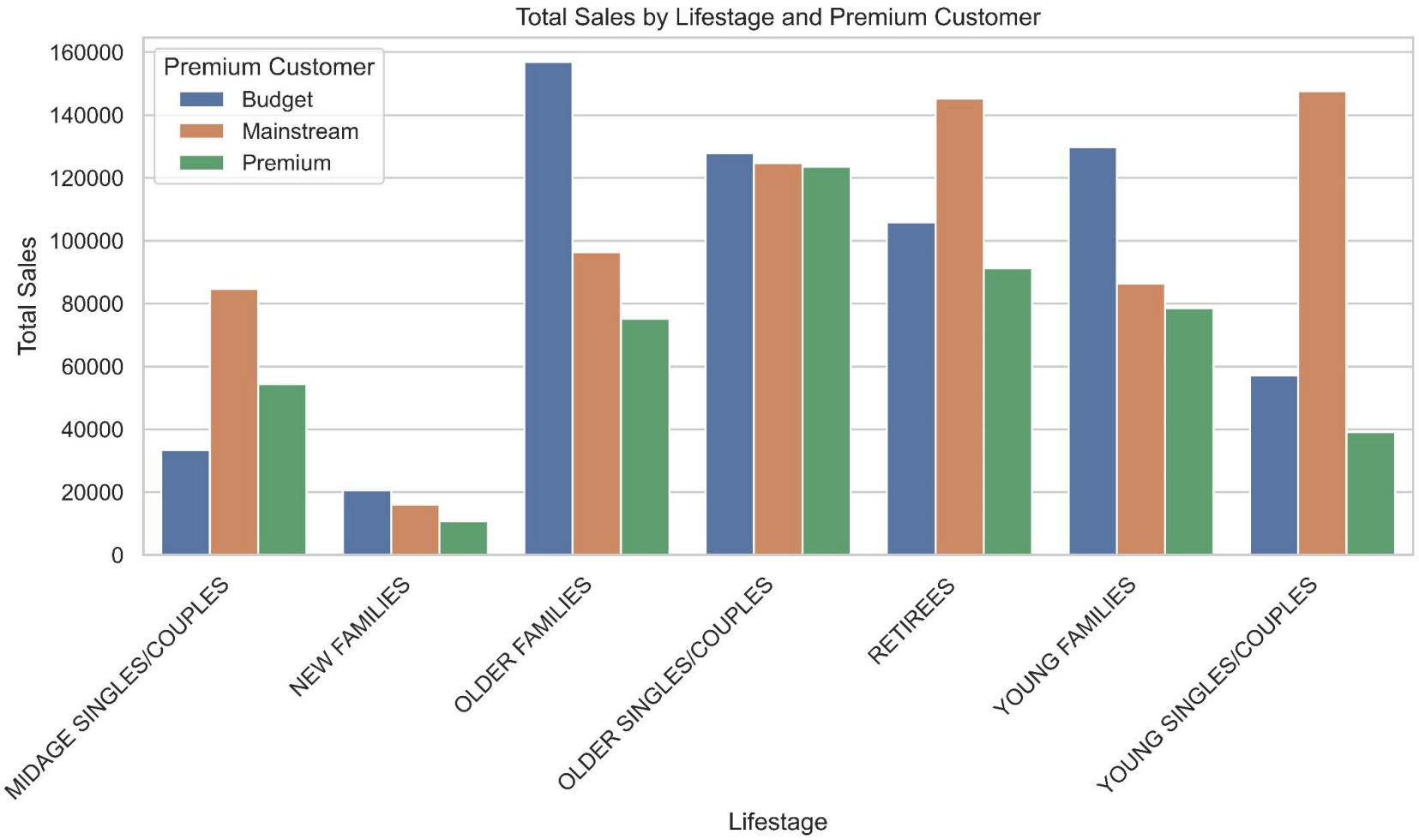
Sales are coming mainly from Budget - older families, Mainstream - young singles/couples, and Mainstream - retirees



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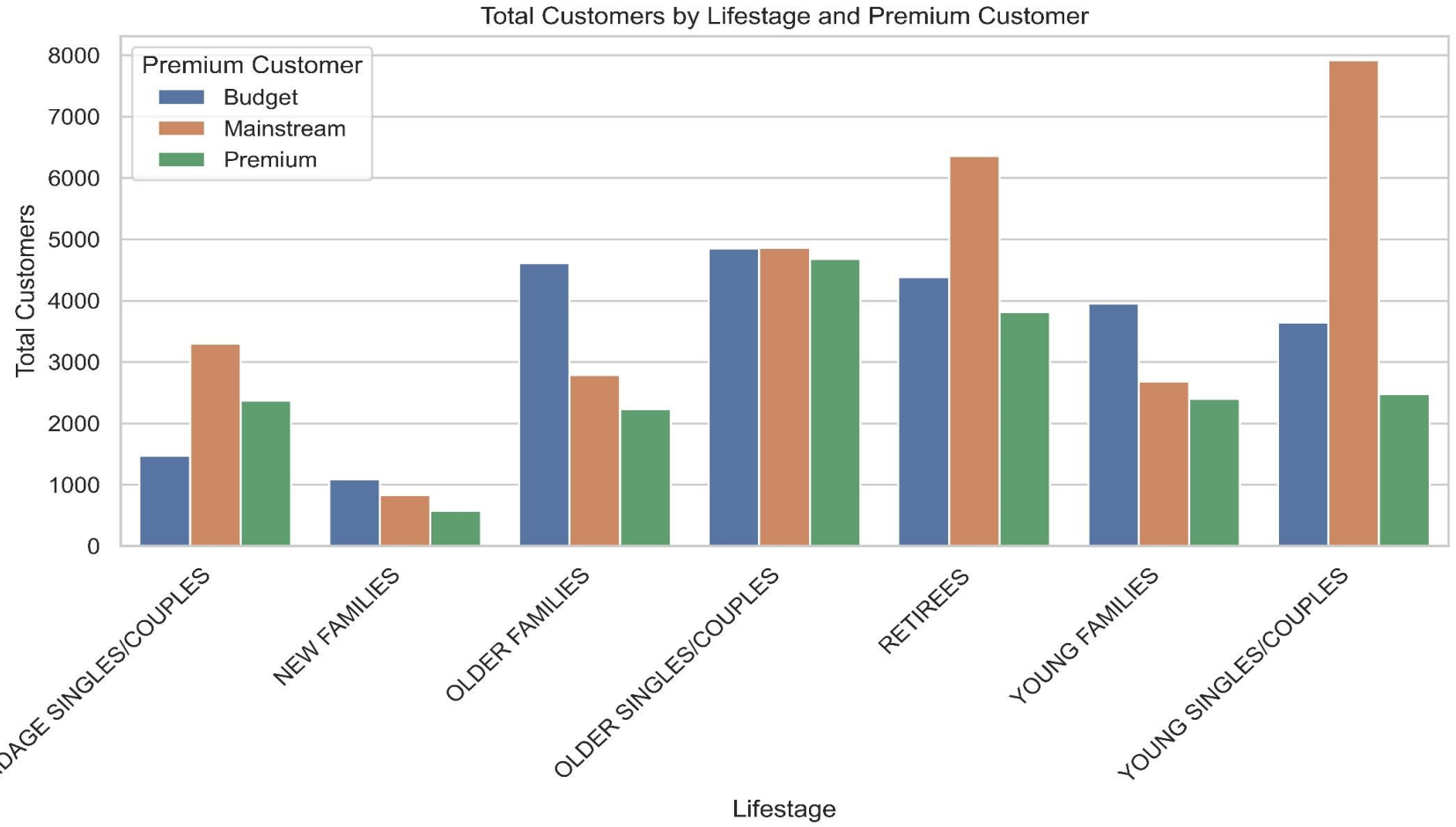
There are more Mainstream - young singles/couples and Mainstream - retirees who buy chips.

This contributes to there being more sales to these customer segments but this is not a major driver for the Budget - Older families segment.



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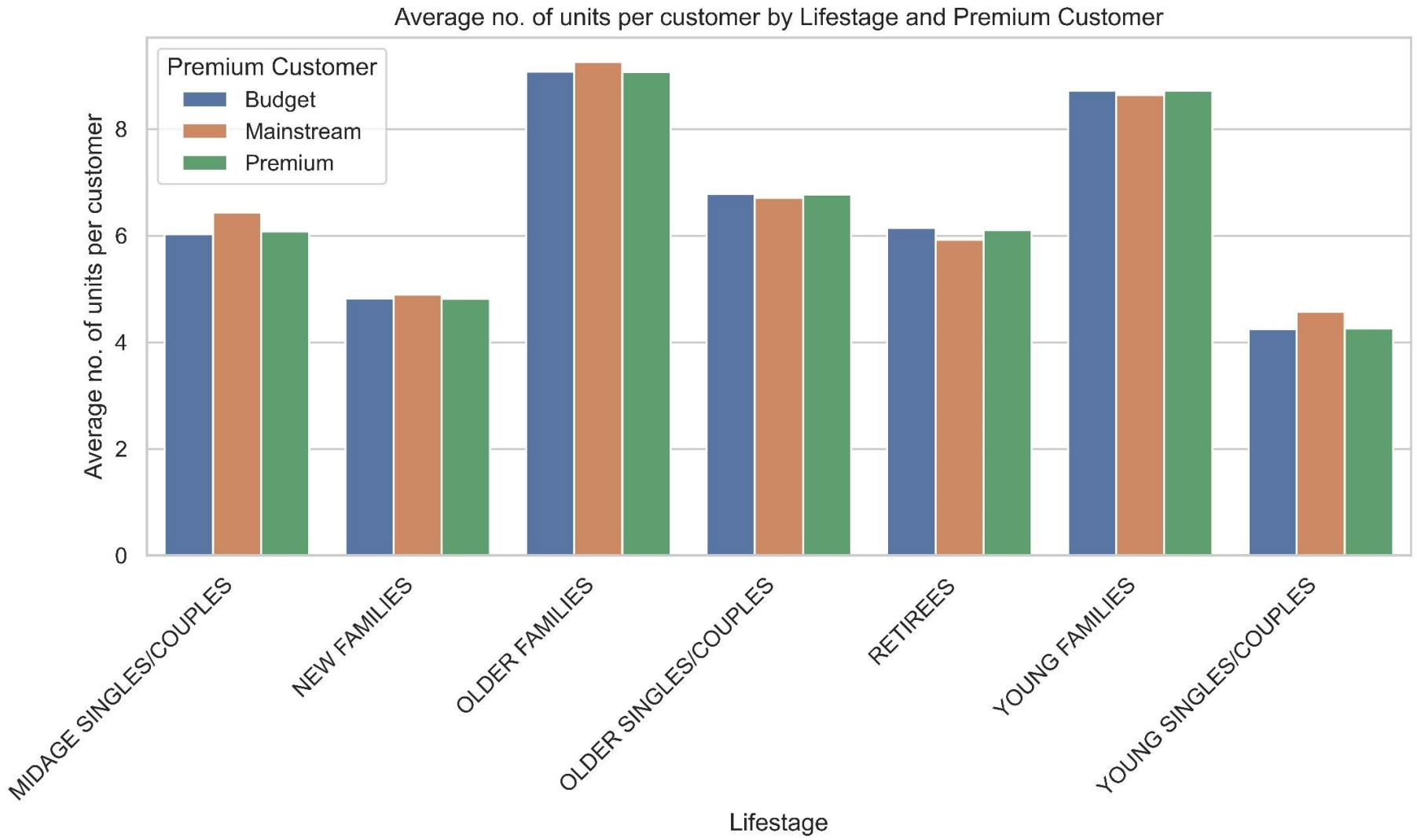
Older families and young families in general buy more chips per customer



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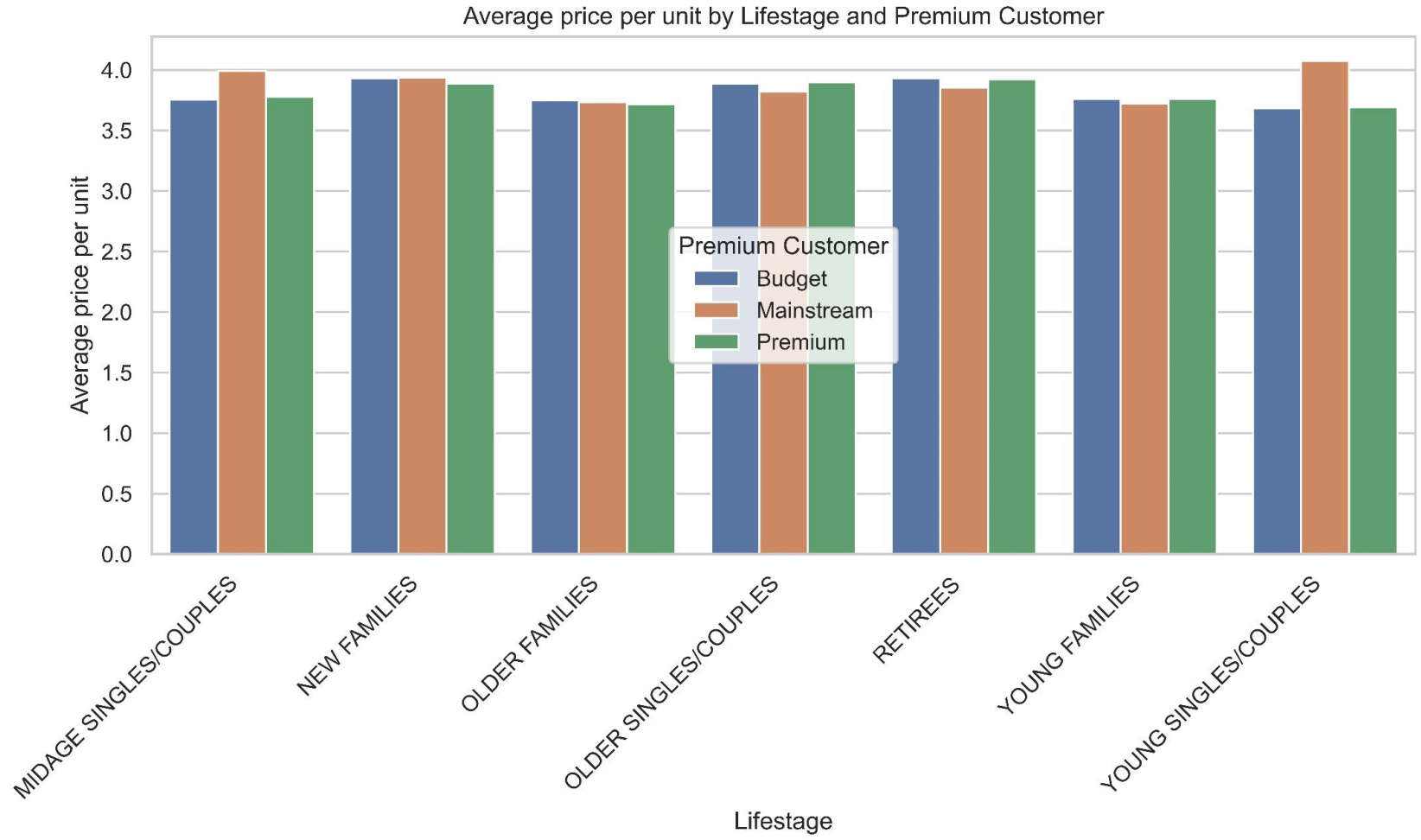
Mainstream midage and young singles and couples are more willing to pay more per packet of chips compared to their budget and premium counterparts. This may be due to premium shoppers being more likely to buy healthy snacks and when they buy chips, this is mainly for entertainment purposes rather than their own consumption. This is also supported by there being fewer premium midage and young singles and couples buying chips compared to their mainstream counterparts.



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We can see that :

• Mainstream young singles/couples are 22% more likely to purchase Tyrrells chips compared to the rest of the population

• Mainstream young singles/couples are 56% less likely to purchase Burger Rings compared to the rest of the population

	BRAND	PROD_QTY_x	targetSegment	PROD_QTY_y	other	affinityToBrand
18	Tyrrells	1143	0.031553	11155	0.025692	1.228095
17	Twisties	1673	0.046184	16445	0.037877	1.219319
5	Doritos	4447	0.122761	43884	0.101075	1.214553
9	Kettle	7172	0.197985	71879	0.165553	1.195897
16	Tostitos	1645	0.045411	16489	0.037978	1.195713
11	Pringles	4326	0.119420	43693	0.100635	1.186670
4	Cobs	1617	0.044638	16954	0.039049	1.143124
8	Infuzions	2343	0.064679	24776	0.057065	1.133435
15	Thins	2187	0.060373	24742	0.056986	1.059423
7	GrnWves	1185	0.032712	13541	0.031188	1.048873
3	Cheezels	651	0.017971	8096	0.018647	0.963753
13	Smiths	3491	0.096370	54091	0.124584	0.773536
6	French	143	0.003948	2500	0.005758	0.685569
2	Cheetos	291	0.008033	5239	0.012067	0.665733
12	RRD	1587	0.043810	29304	0.067494	0.649091
10	Natural	710	0.019600	13396	0.030854	0.635241
1	CCs	405	0.011180	8204	0.018896	0.591677
14	Sunbites	230	0.006349	5462	0.012580	0.504698
19	Woolworths	873	0.024099	21460	0.049427	0.487573
0	Burger	106	0.002926	2864	0.006596	0.443597

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It looks like Mainstream young singles/couples are 26% more likely to purchase a 270g pack of chips compared to the rest of the population but let's dive into what brands sell this pack size.

	PACK_SIZE(g)	PROD_QTY_x	targetSegment	PROD_QTY_y	other	affinityToPack
0	270	1153	0.031829	10896	0.025096	1.268287
1	380	1165	0.032160	11108	0.025584	1.257030
2	330	2220	0.061284	21779	0.050162	1.221717
3	134	4326	0.119420	43693	0.100635	1.186670
4	110	3850	0.106280	38985	0.089791	1.183637
5	210	1055	0.029124	10907	0.025121	1.159318
6	135	535	0.014769	5677	0.013075	1.129511
7	250	520	0.014355	5549	0.012781	1.123166
8	170	2926	0.080773	35162	0.080986	0.997370
9	150	5709	0.157598	70953	0.163421	0.964372
10	175	9237	0.254990	117230	0.270007	0.944382
11	165	2016	0.055652	27035	0.062268	0.893757
12	190	271	0.007481	5402	0.012442	0.601271
13	180	130	0.003589	2634	0.006067	0.591538
14	160	232	0.006404	5372	0.012373	0.517616
15	90	230	0.006349	5462	0.012580	0.504698
16	125	109	0.003009	2621	0.006037	0.498442
17	200	325	0.008972	8100	0.018656	0.480899
18	70	110	0.003037	2745	0.006322	0.480292
19	220	106	0.002926	2864	0.006596	0.443597

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02

Trial store performance

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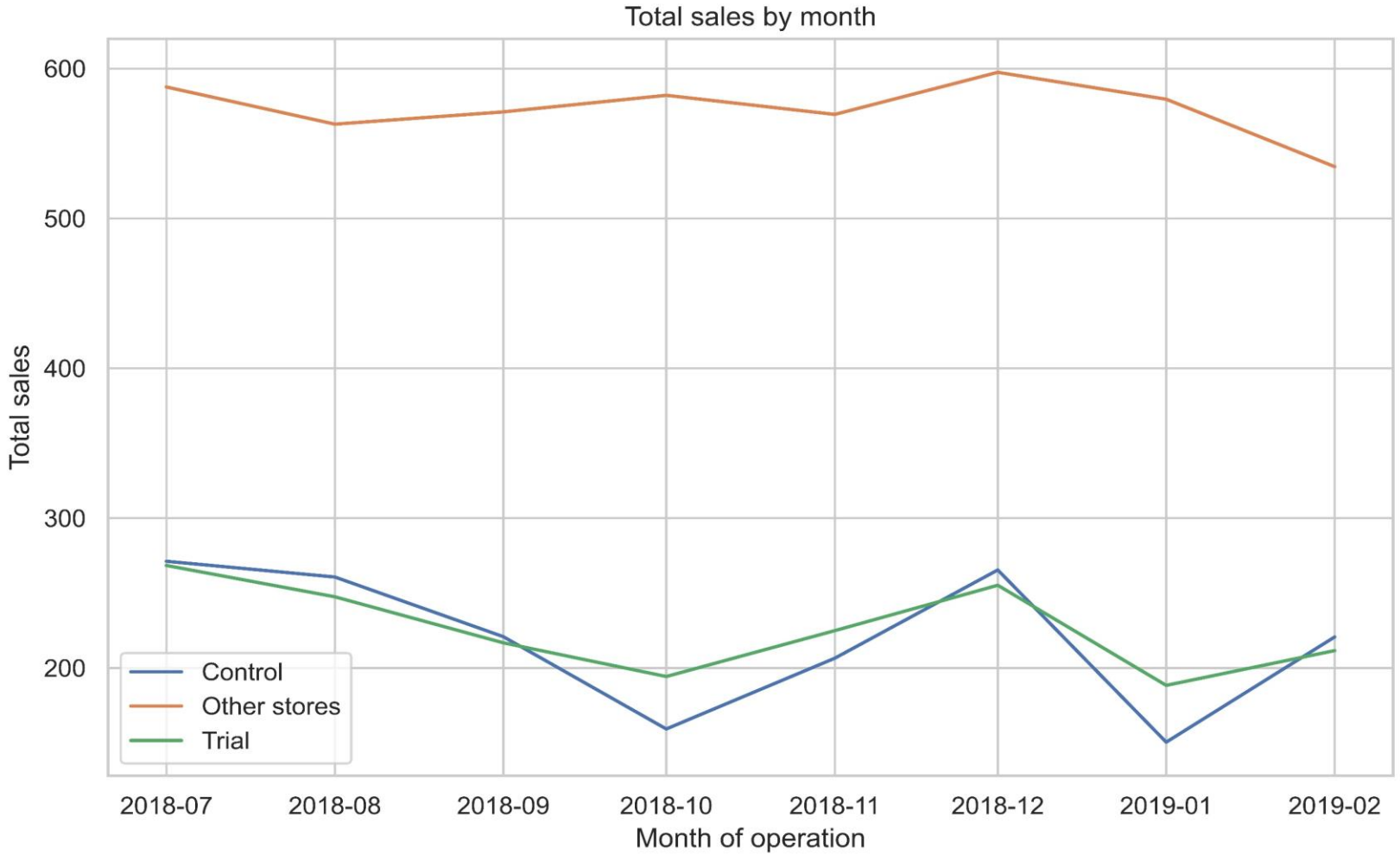
Trail Store : 77



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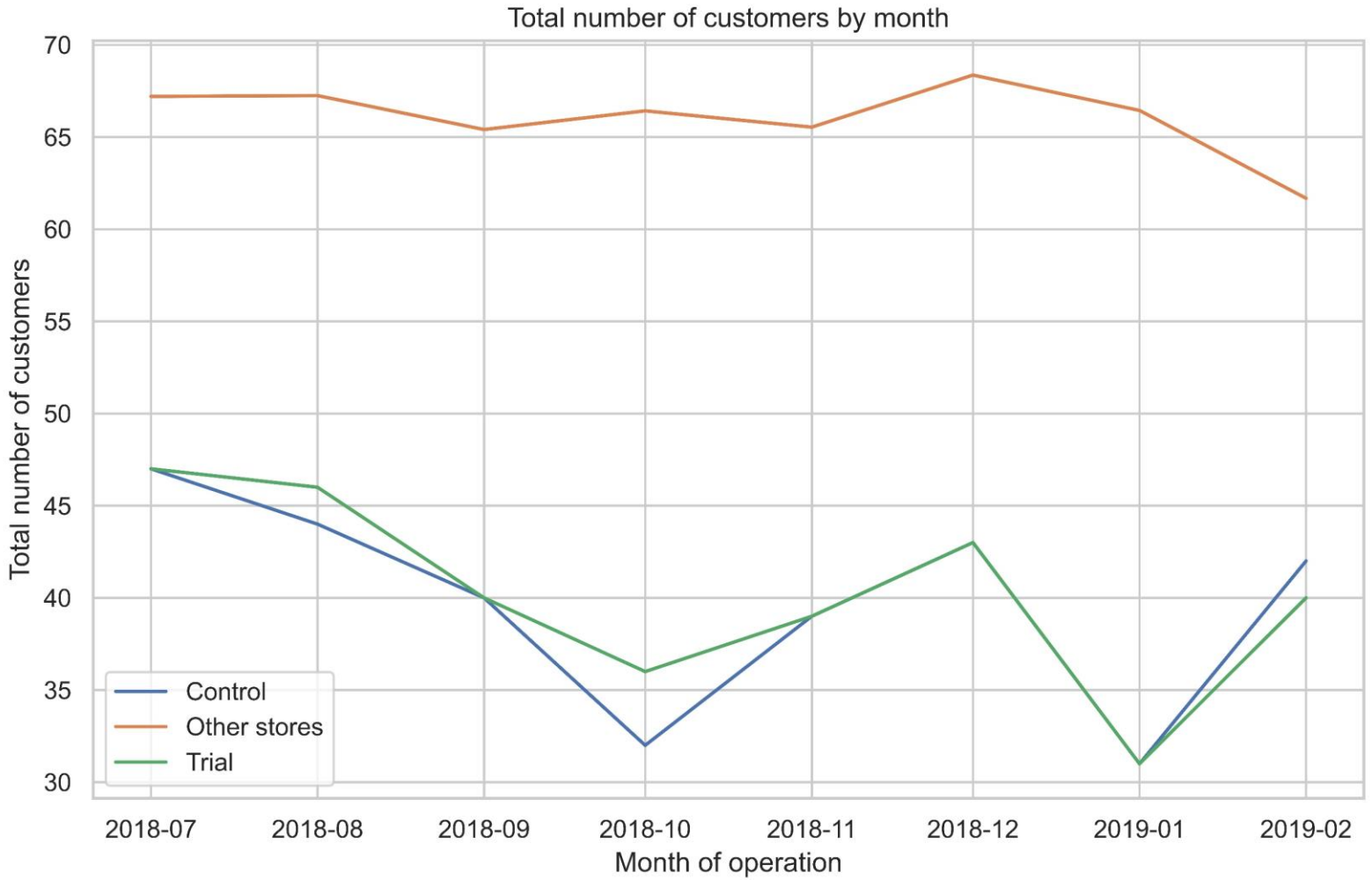
Trail Store : 77



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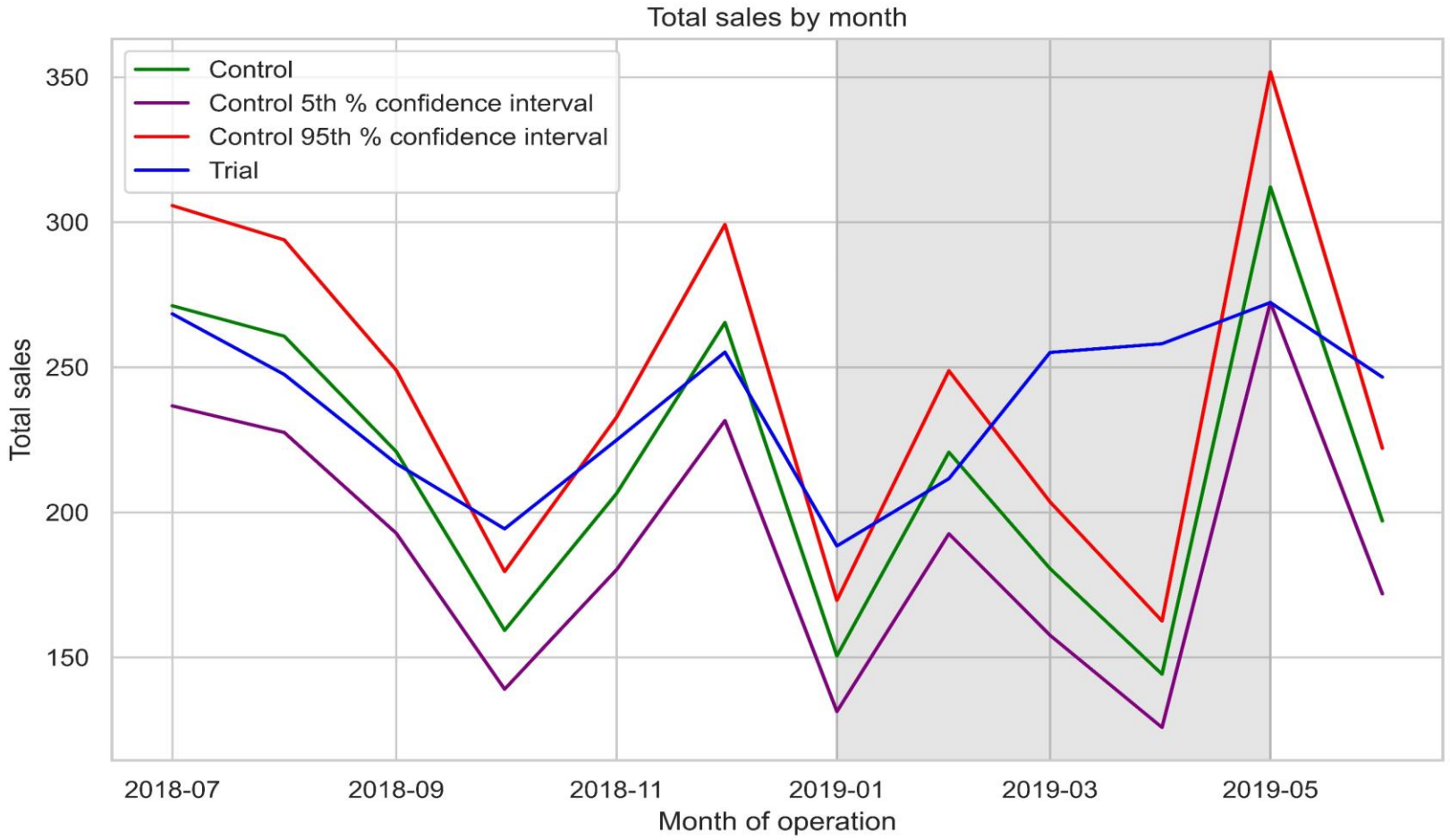
The results show that the trial in store 77 is significantly different to its control store in the trial period as the trial store performance lies outside the 5% to 95% confidence interval of the control store in two of the three trial months.



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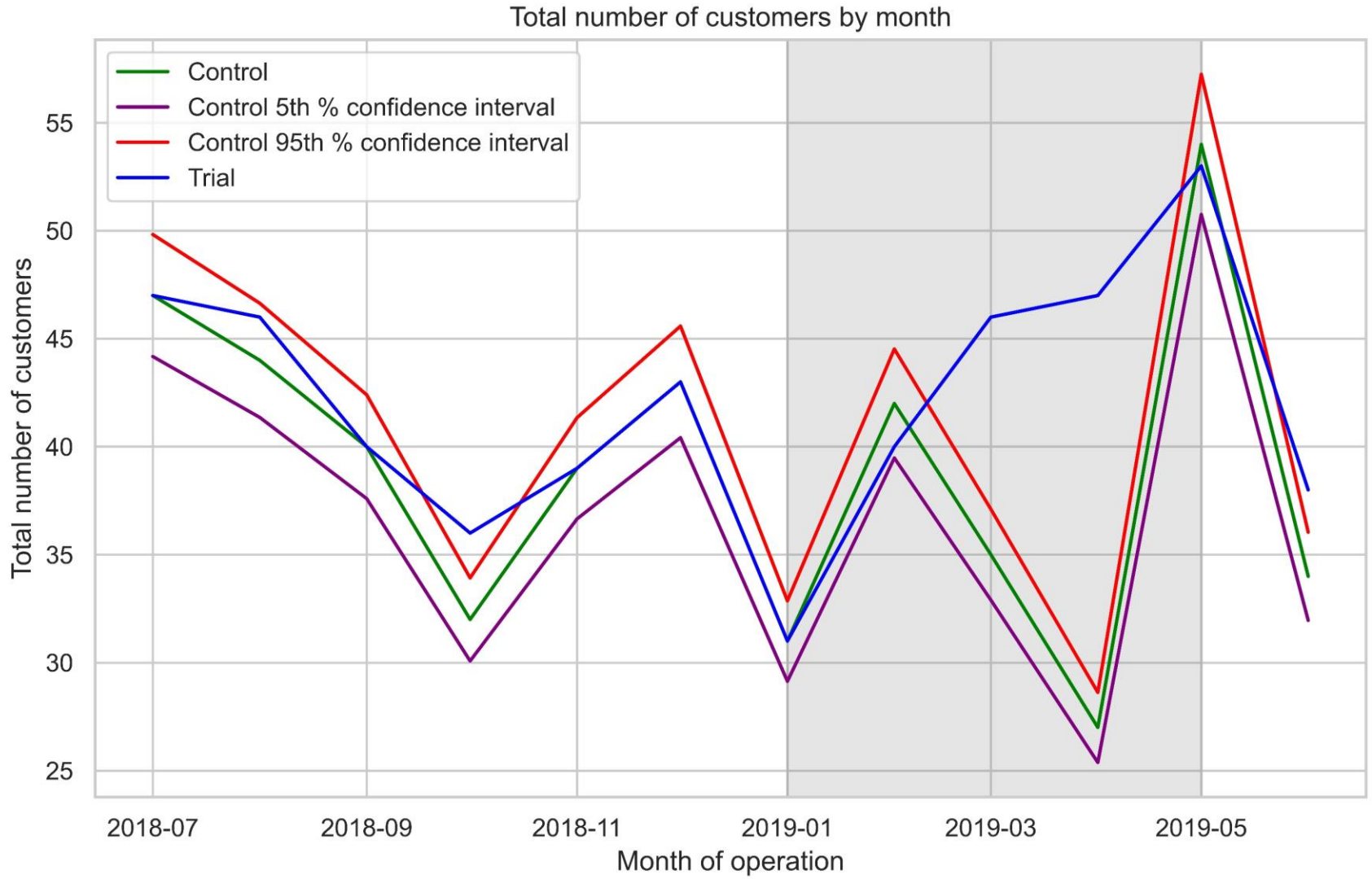

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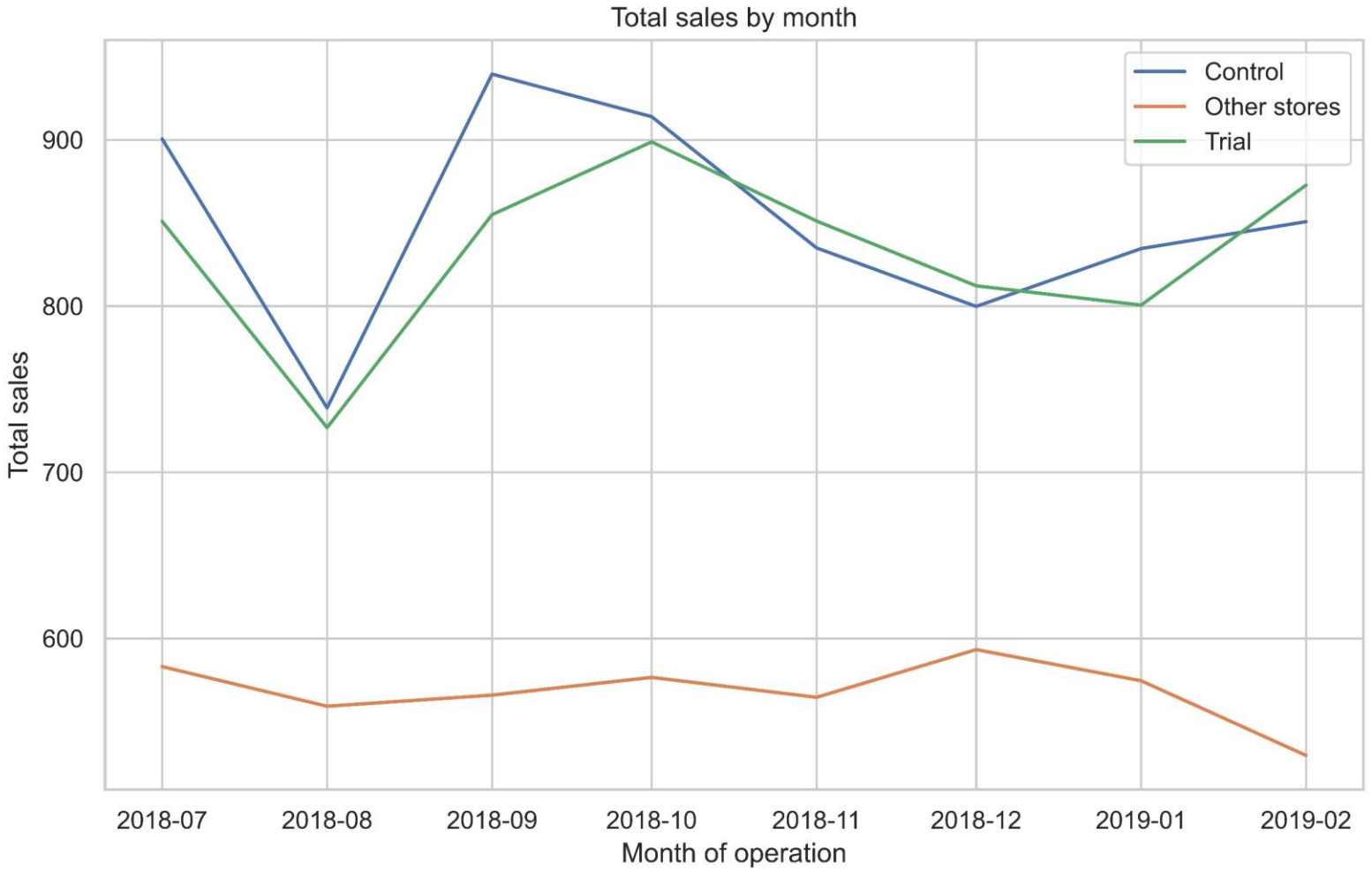
Trail Store : 86



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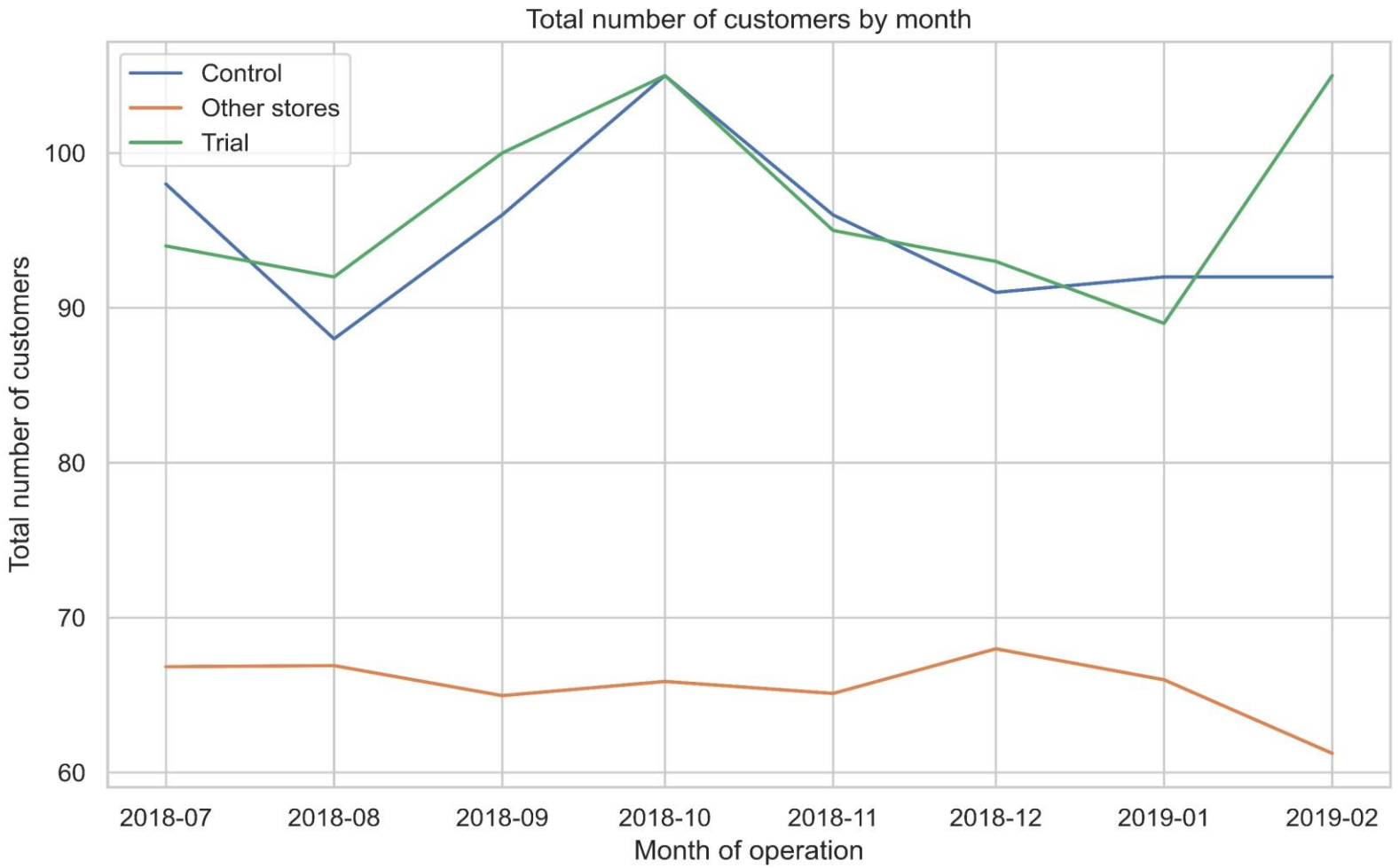
Trail Store : 86



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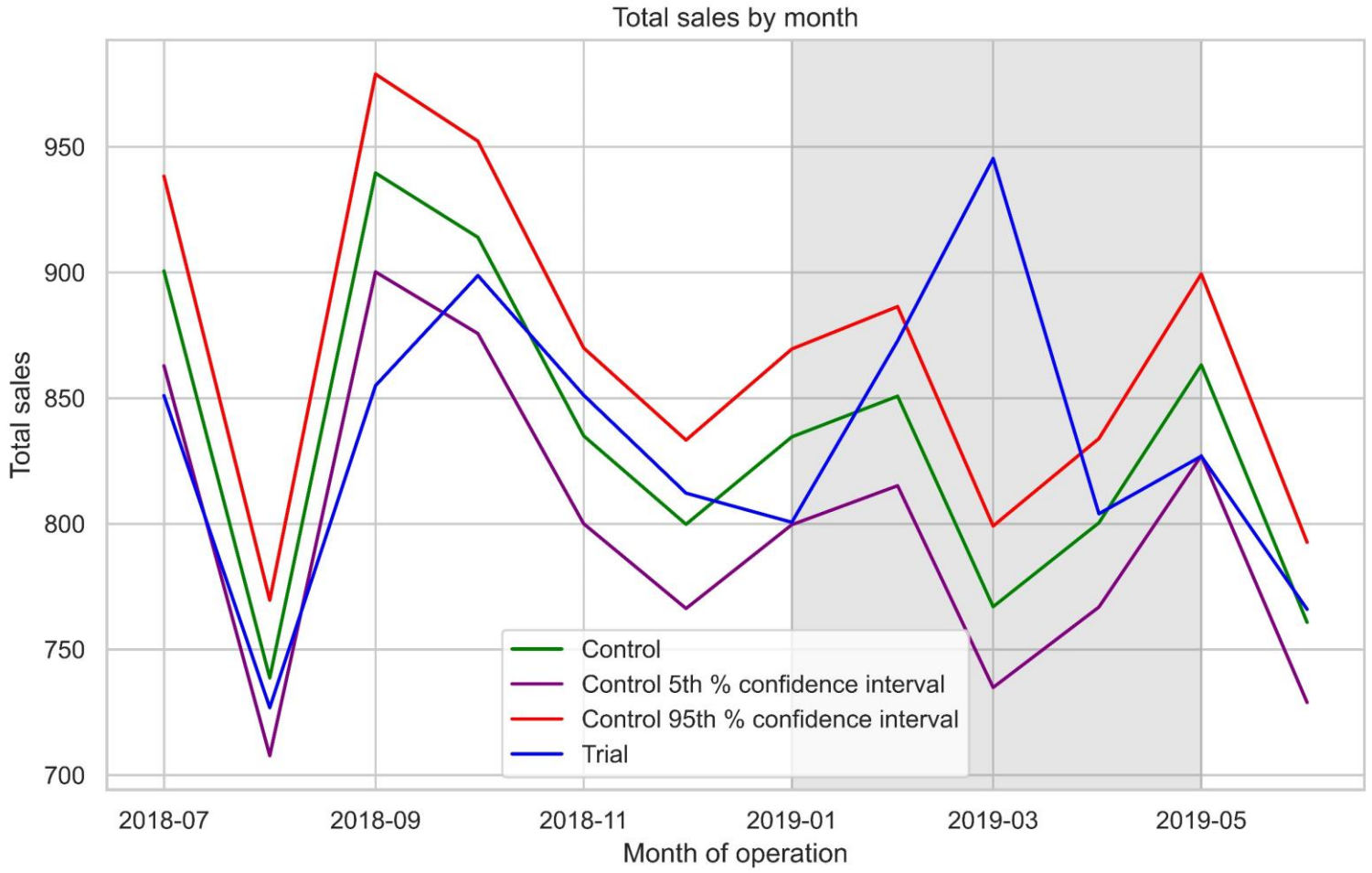
The results show that the trial in store 86 is not significantly different to its control store in the trial period as the trial store performance lies inside the 5% to 95% confidence interval of the control store in two of the three trial months.



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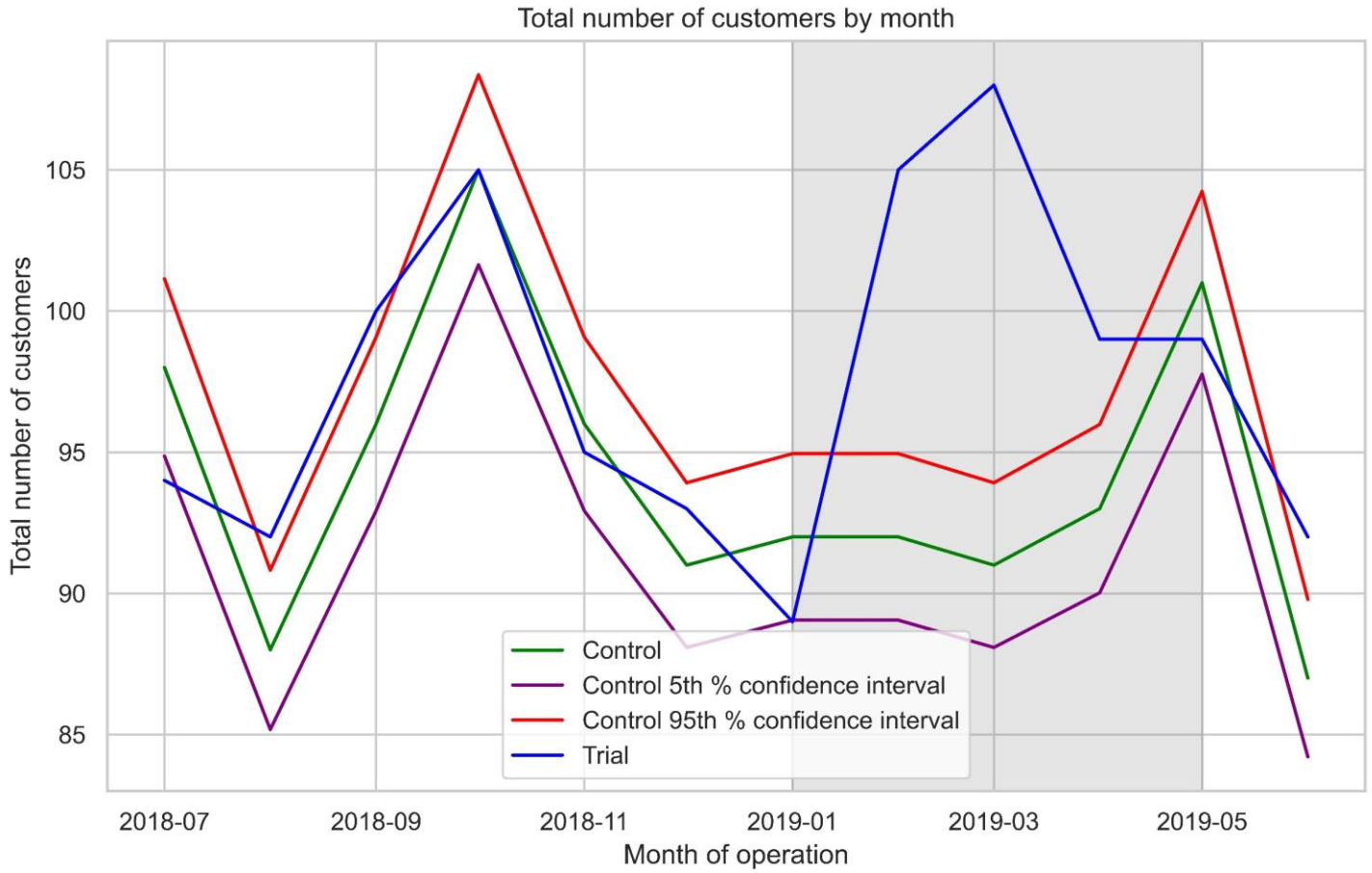
It looks like the number of customers is significantly higher in all of the three months. This seems to suggest that the trial had a significant impact on increasing the number of customers in trial store 86 but as we saw, sales were not significantly higher. We should check with the Category Manager if there were special deals in the trial store that were may have resulted in lower prices, impacting the results.



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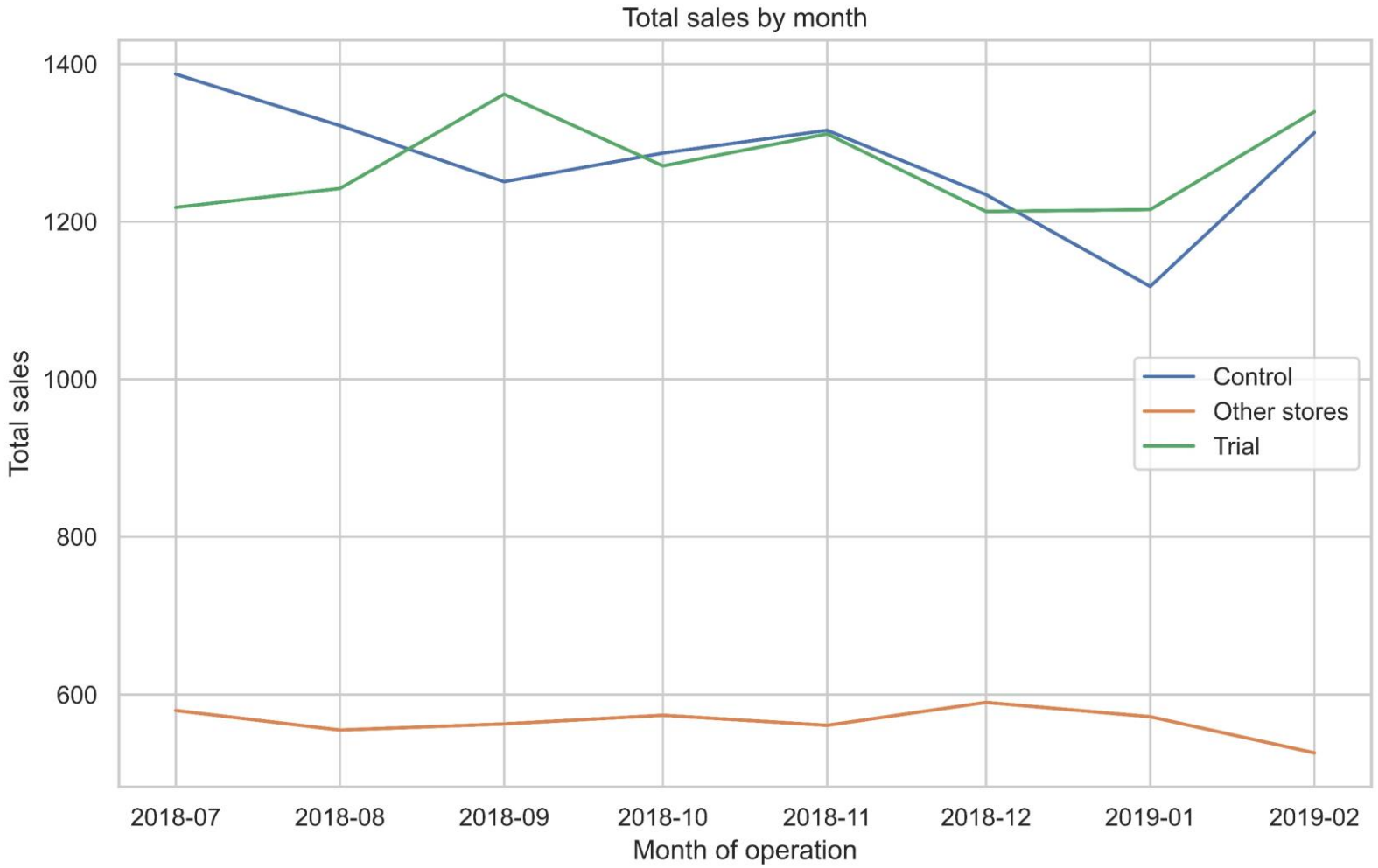
Trail Store : 88



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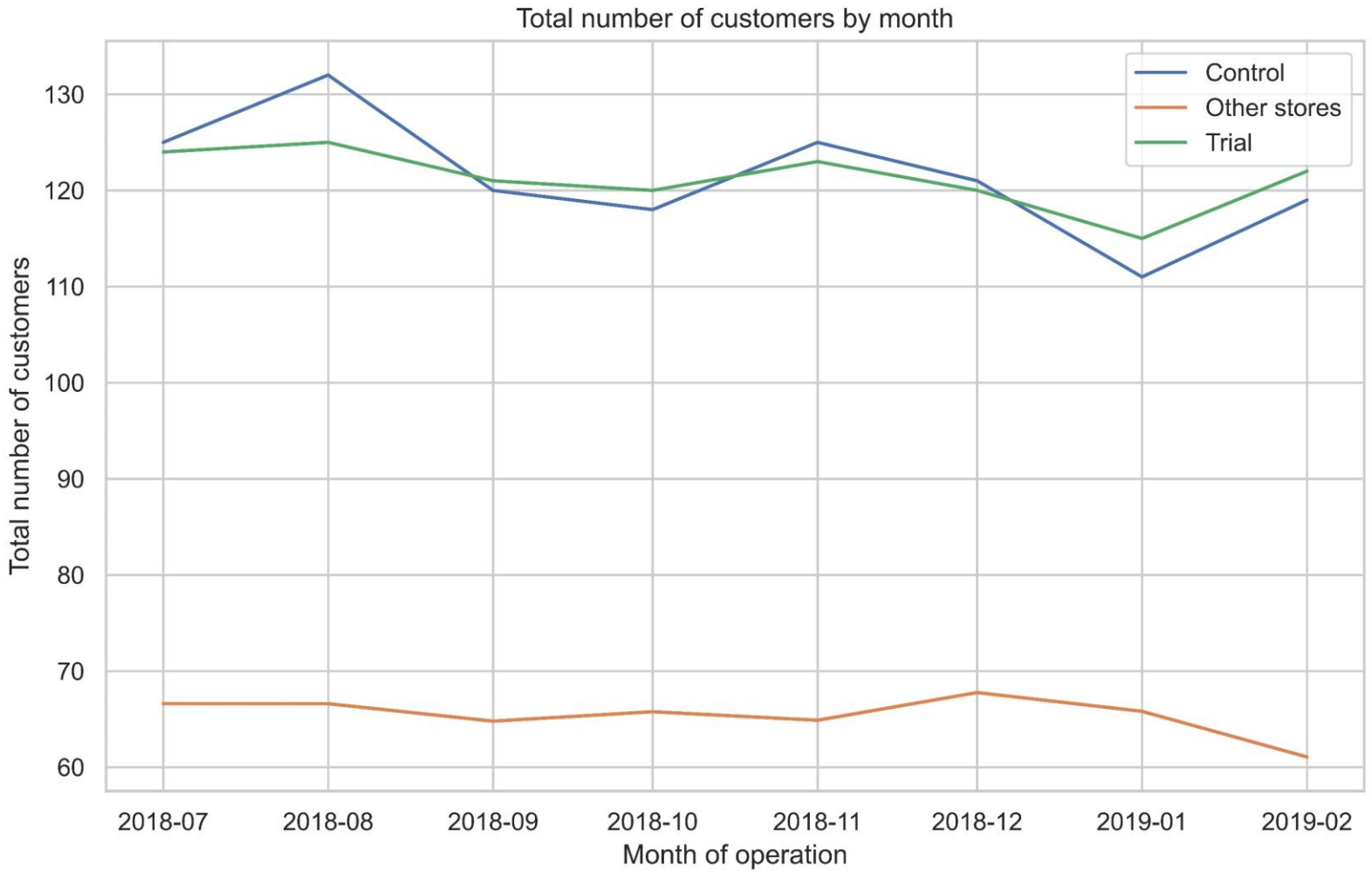
Trail Store : 88



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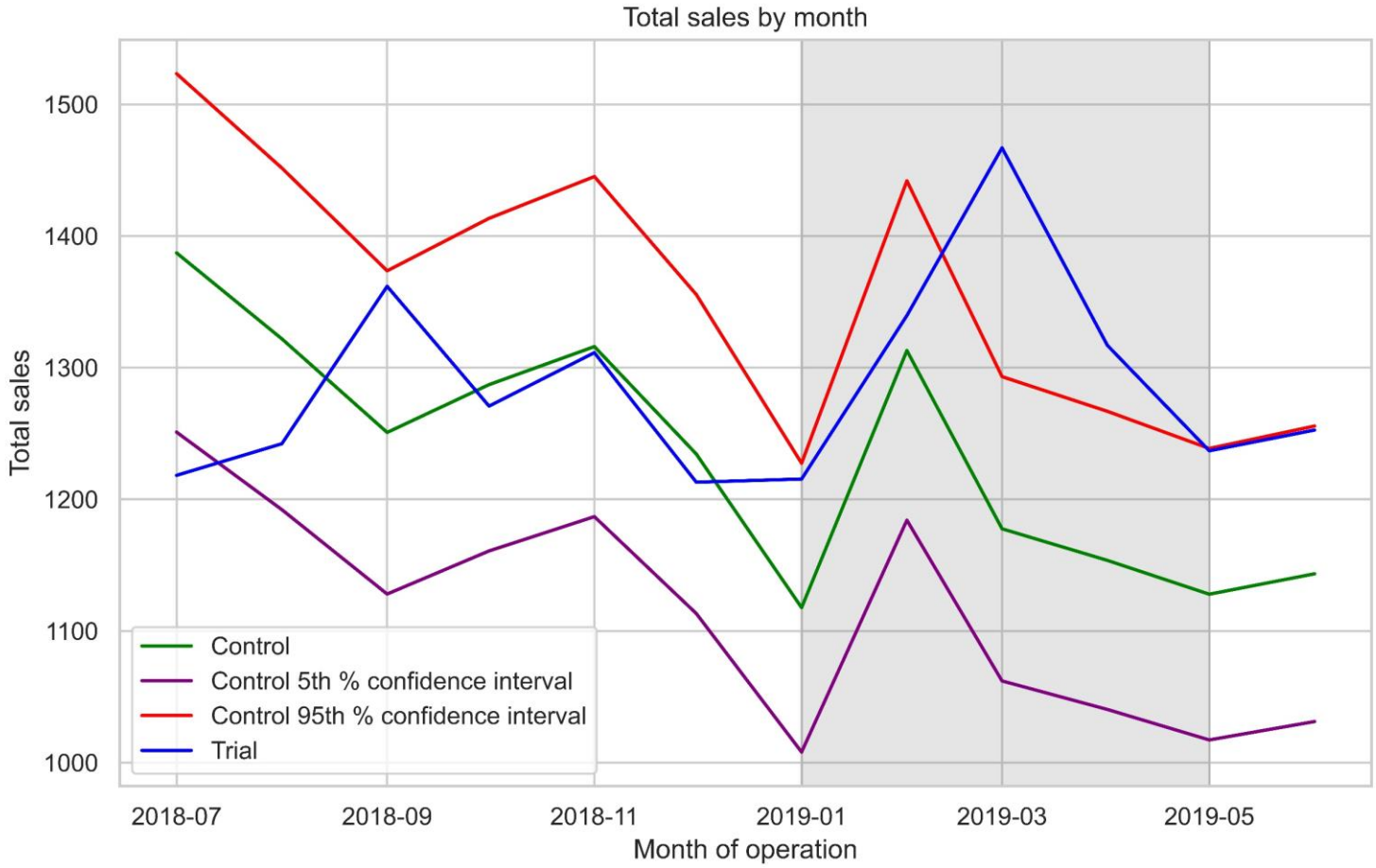
The results show that the trial in store 88 is significantly different to its control store in the trial period as the trial store performance lies outside of the 5% to 95% confidence interval of the control store in two of the three trial months.



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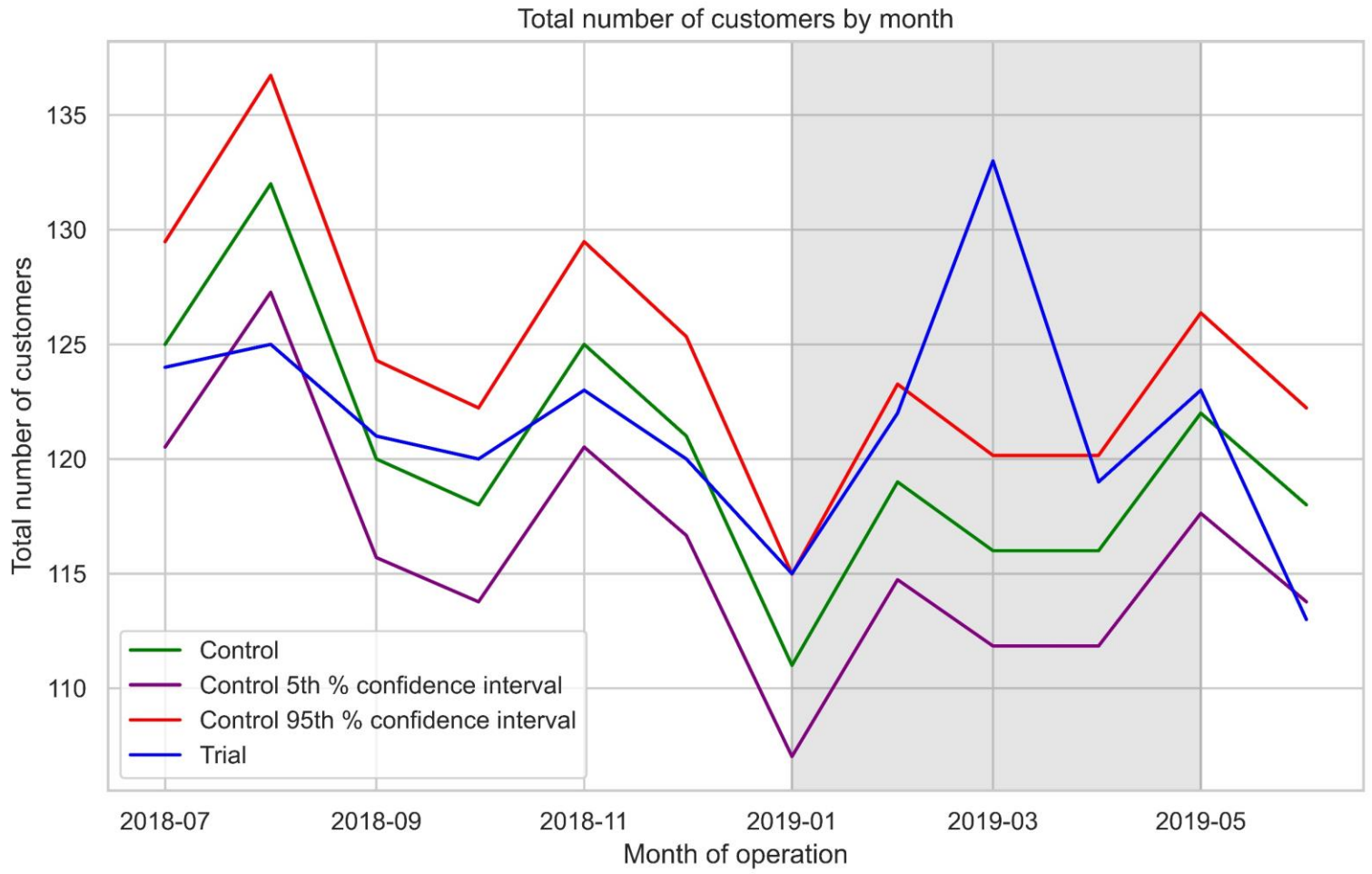
Total number of customers in the trial period for the trial store is significantly higher than the control store for two out of three months, which indicates a positive trial effect.



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Conclusion:

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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