June 2020

Category review: Chips

Retail Analytics

quantium

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.

quantium

Executive summary

01 Task 1

The two key customer segments of statistical interest are:
1.Young Singles/Couples (Mainstream)
2.Retirees (Mainstream)

Insights:

•Mainstream Retirees are 11% more likely to purchase Grain chips and approximately 23% less likely to buy French chips.

•Mainstream Young Singles/Couples are about 23% more likely to purchase Tyrells and roughly 55% less likely to choose Burger chips.

Recommendation:

Focus your marketing efforts on these segments by targeting them with the respective products. By doing so, you can effectively drive sales and optimize your product offerings to meet their preferences.

02 Task 2

Performance Summary:

•Store 77: Successfully increased average sales per transaction, leading to overall improved performance.

•Store 86: Performed averagely. Outperformed one control store in all categories but was outperformed by another control store.

•Store 88: Outperformed all control stores by increasing the number of monthly transactions.

Recommendations:

1.Analyze Strategies:
1. Investigate the strategies used in Store 77 to boost average sales per transaction.
2. Examine the tactics in Store 88 that increased monthly transactions.

2.Performance Comparison:
1. Identify the strategies used in Store 86 to understand why its performance lagged behind.

3.Strategic Implementation:
1. Combine successful strategies from Stores 77 and 88.
2. Discard failing strategies.
3. Implement these combined strategies in new trial stores to enhance performance across all categories.

quantium

Classification: Confidential

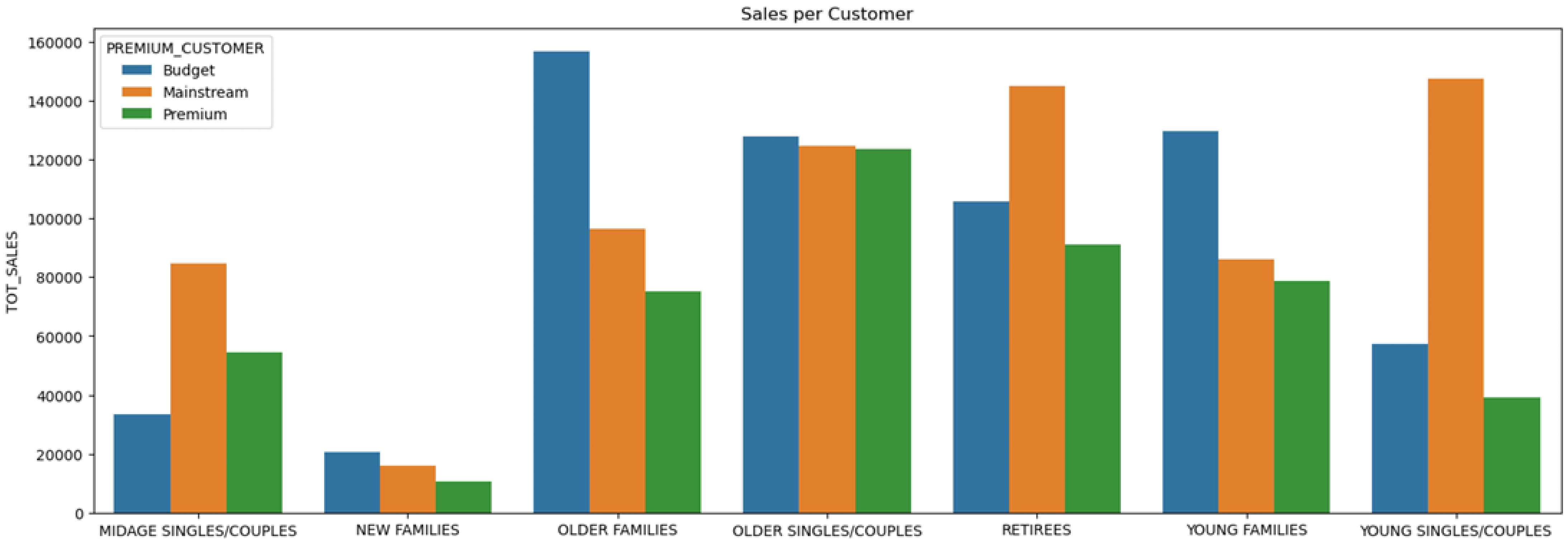
01

Category

Classification: Confidential

Top Categories

The top 2 statistical categories of interest are Young Singles/Couples Mainstream and Retirees Mainstream which we can see from bar plot. Older families Budget is the highest, however, it failed the t-test to see if it was statistically different from the other older families categories so it was excluded from analysis.



quantium

Classification: Confidential

Brand Affinity for Top Categories

Young Singles/Couples Mainstream

Rank	Brand	Quantity	Affinity
1	Tyrrells	1143	1.227016
2	AFF	1673	1.217496
3	Twisties	4447	1.213388
4	Doritos	7172	1.188658
5	Kettle	1645	1.184091
6	Tostitos	4326	1.181081
7	Pringles	1055	1.170011
8	Grain	1617	1.16095
9	Cobs	2343	1.126613
10	Infuzions	2187	1.056209
11	Thins	651	0.950646
12	Cheezels	3491	0.775852
13	Smiths	143	0.691719
14	French	291	0.683145
15	Cheetos	1587	0.652076
16	Red	578	0.640816
17	Natural	405	0.606137
18	CCs	132	0.601327
19	NCC	130	0.580939
20	GrnWves	126	0.514982
21	Snbts	770	0.498297
22	Woolworths	104	0.490035
23	Sunbites	103	0.466878
24	WW	106	0.447571

Retirees Mainstream

Rank	Brand	Quantity	Affinity
1	Grain	1029	1.110906
2	Twisties	1516	1.089263
3	Doritos	3974	1.074817
4	Thins	2279	1.072736
5	Pringles	3995	1.070203
6	Kettle	6428	1.058838
7	Cobs	1488	1.051431
8	Infuzions	2246	1.047811
9	Tyrrells	969	1.03072
10	Tostitos	1412	1.012249
11	Cheezels	720	1.003344
12	Snbts	248	0.952217
13	Cheetos	441	0.945459
14	GrnWves	229	0.93102
15	Smiths	4422	0.919612
16	CCs	667	0.886707
17	Natural	878	0.886301
18	Sunbites	208	0.870711
19	Burger	228	0.869645
20	NCC	200	0.852383
21	Red	2261	0.852168
22	Woolworths	1466	0.847731
23	WW	196	0.781848
24	French	177	0.773555

quantium

Classification: Confidential

Brand Affinity Insights

- Young Couples/Singles Mainstream are 22.7% more likely to purchase Tyrell brand. The other top brands they are likely to buy include AFF and Twisties.
- Retiree Mainstream are 11% more likely to purchase Grain. Other top brands include Twisties and Doritos.
- Can utilise these insights to target customers with directed marketing for these brands to increase sales.

Classification: Confidential

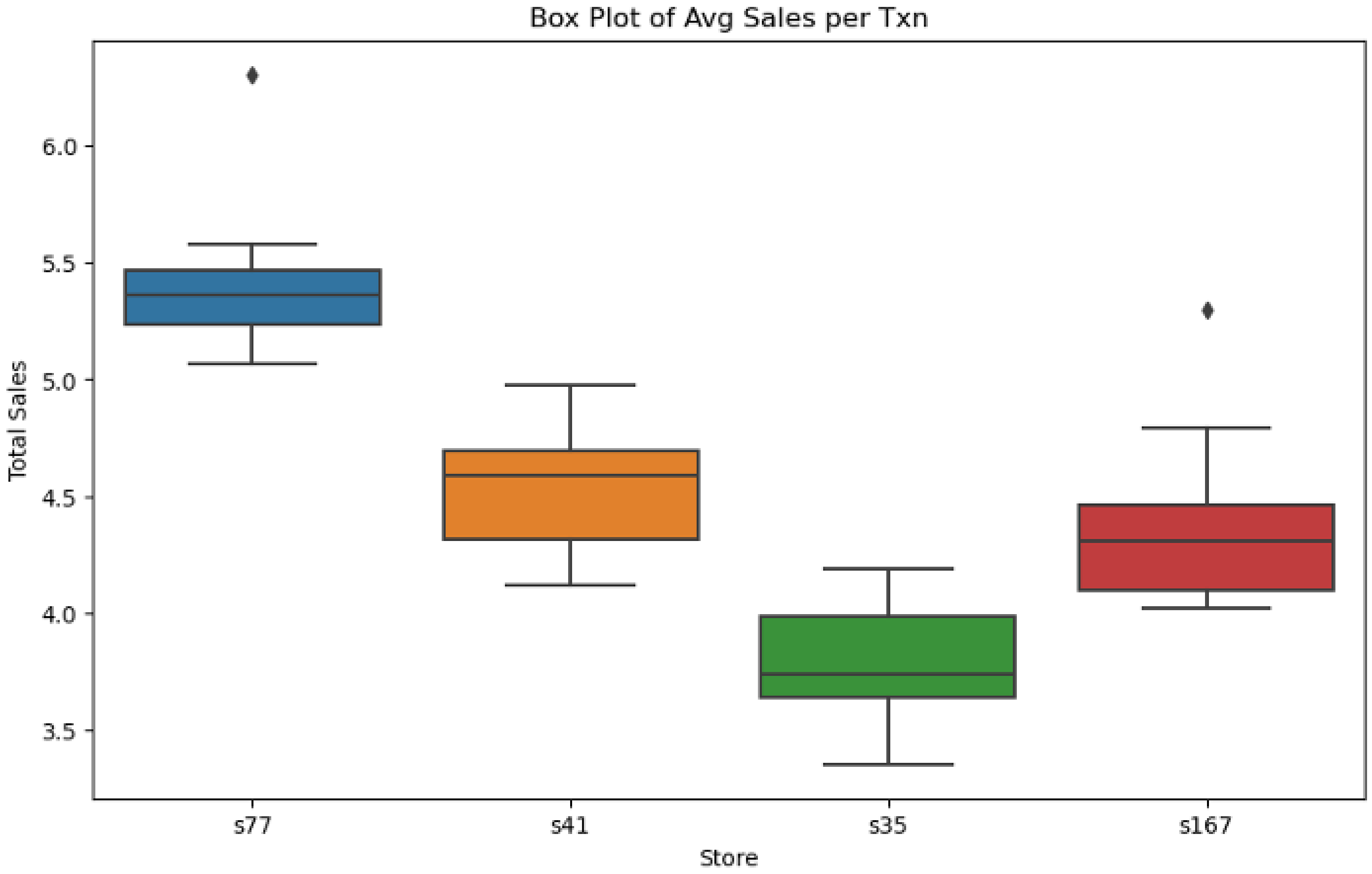
02

Trial store performance

Classification: Confidential

Trial Store 77 vs Control Stores

For trial store 77, control stores 41, 35, and 167 were identified based on the correlation between total sales. The key metric driving store 77's success was the average sale per transaction. The boxplot below illustrates this metric. T-tests confirmed that the higher average sale per transaction was the primary factor for store 77 outperforming the control stores.

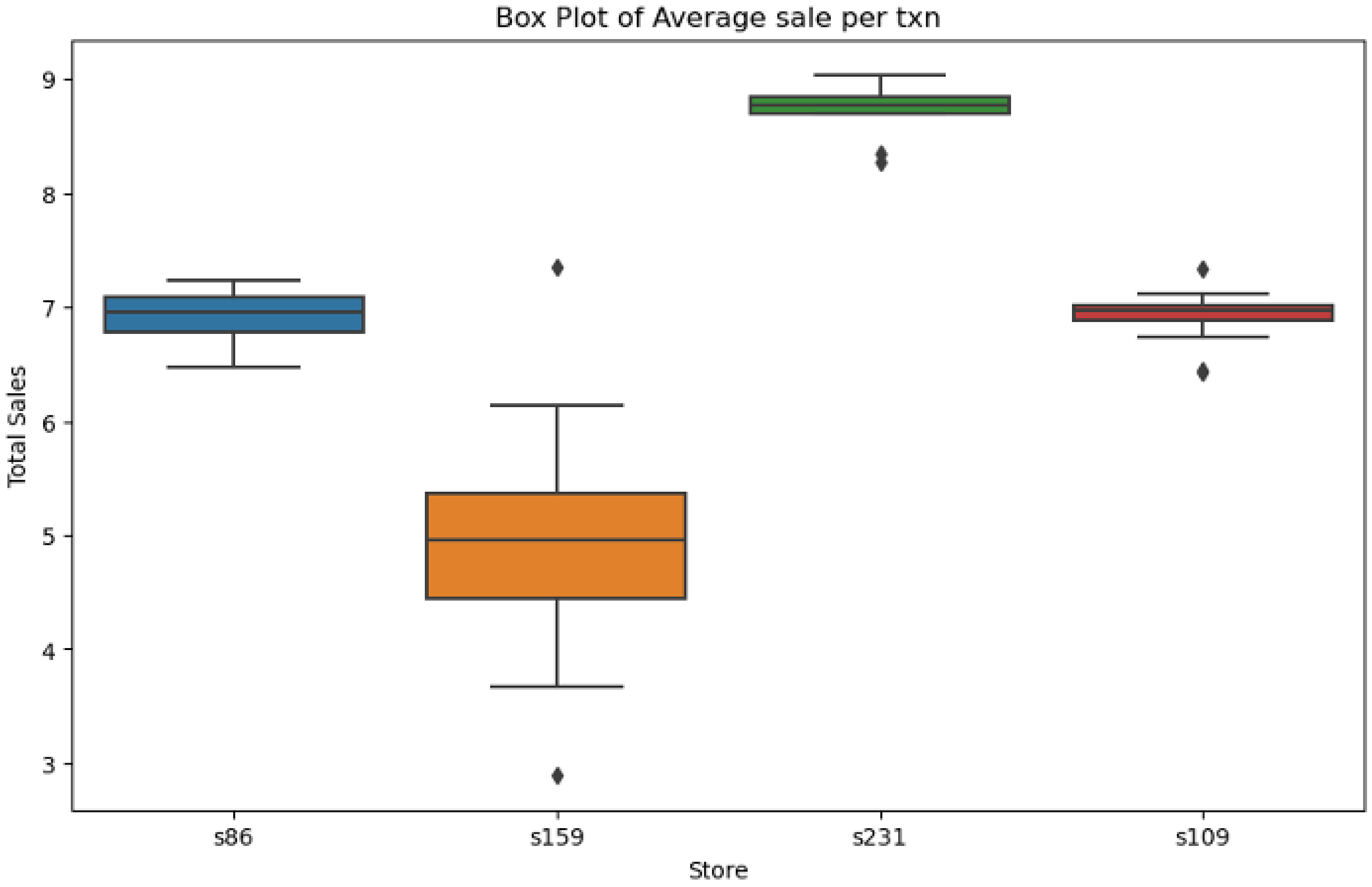


quantium

Classification: Confidential

Trial Store 86 vs Control Stores

The control stores for trial store 86 were 159, 231 and 109. As a whole store 86 performed average. This is depicted in boxplot.

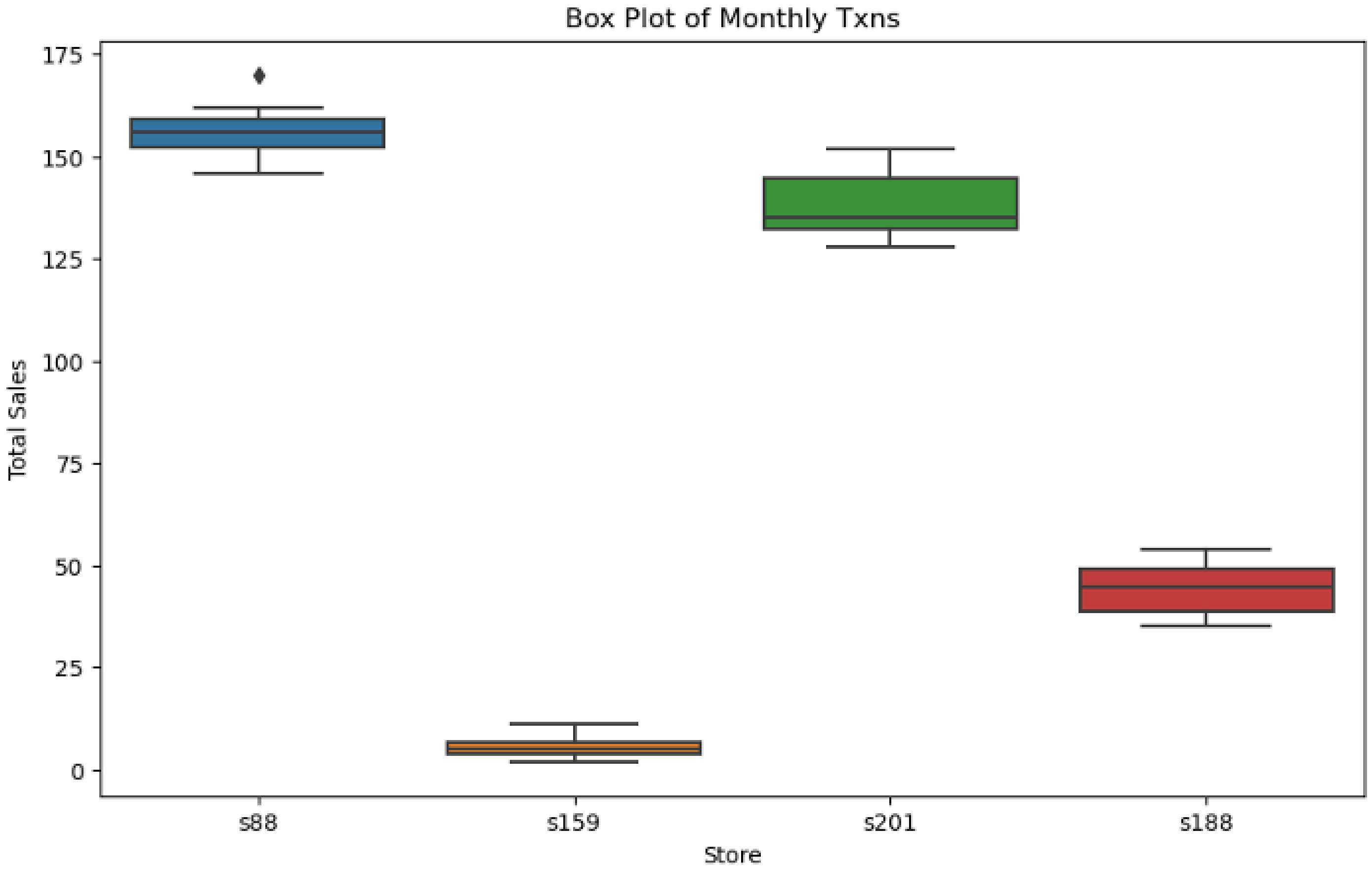


quantium

Classification: Confidential

Trial Store 88 vs Control Stores

The control stores were 159, 201 and 188 for trial store 88. The key metric on why store 88 performed better than control stores was number of monthly transactions.



quantium.

Classification: Confidential

Trial Store Performance Summary

Trial stores achieved success in improving the performance of stores 77 and 88, but not store 86. Here are the key metrics that led to these results:

1. **Store 77**: Increased the average sales per transaction, leading to better performance compared to other stores.

2. **Store 86**: Performance was average. It outperformed one control store across all categories but was beaten by another in all categories, and the third control only failed to increase total sales.

3. **Store 88**: Outperformed all control stores by increasing the number of monthly transactions.

Recommendations

1. Analyze the strategies used in stores 77 and 88 to understand how they increased the average sale per transaction and monthly transactions, respectively.
2. Compare these strategies with those used in store 86 to identify why its performance was not as strong.
3. Combine successful strategies and discard failing ones. Implement these in new trial stores to see if performance can be increased across all categories.

quantium

Classification: Confidential

Disclaimer: This document comprises, and is the subject of intellectual property (including copyright) and confidentiality rights of one or multiple owners, including The Quantium Group Pty Limited and its affiliates (**Quantium**) and where applicable, its third-party data owners (**Data Providers**), together (**IP Owners**). The information contained in this document may have been prepared using raw data owned by the Data Providers. The Data Providers have not been involved in the analysis of the raw data, the preparation of, or the information contained in the document. The IP Owners do not make any representation (express or implied), nor give any guarantee or warranty in relation to the accuracy, completeness or appropriateness of the raw data, nor the analysis contained in this document. None of the IP Owners will have any liability for any use or disclosure by the recipient of any information contained in, or derived from this document. To the maximum extent permitted by law, the IP Owners expressly disclaim, take no responsibility for and have no liability for the preparation, contents, accuracy or completeness of this document, nor the analysis on which it is based. This document is provided in confidence, may only be used for the purpose provided, and may not be copied, reproduced, distributed, disclosed or made available to a third party in any way except strictly in accordance with the applicable written terms and conditions between you and Quantium, or otherwise with Quantium's prior written permission

quantium