

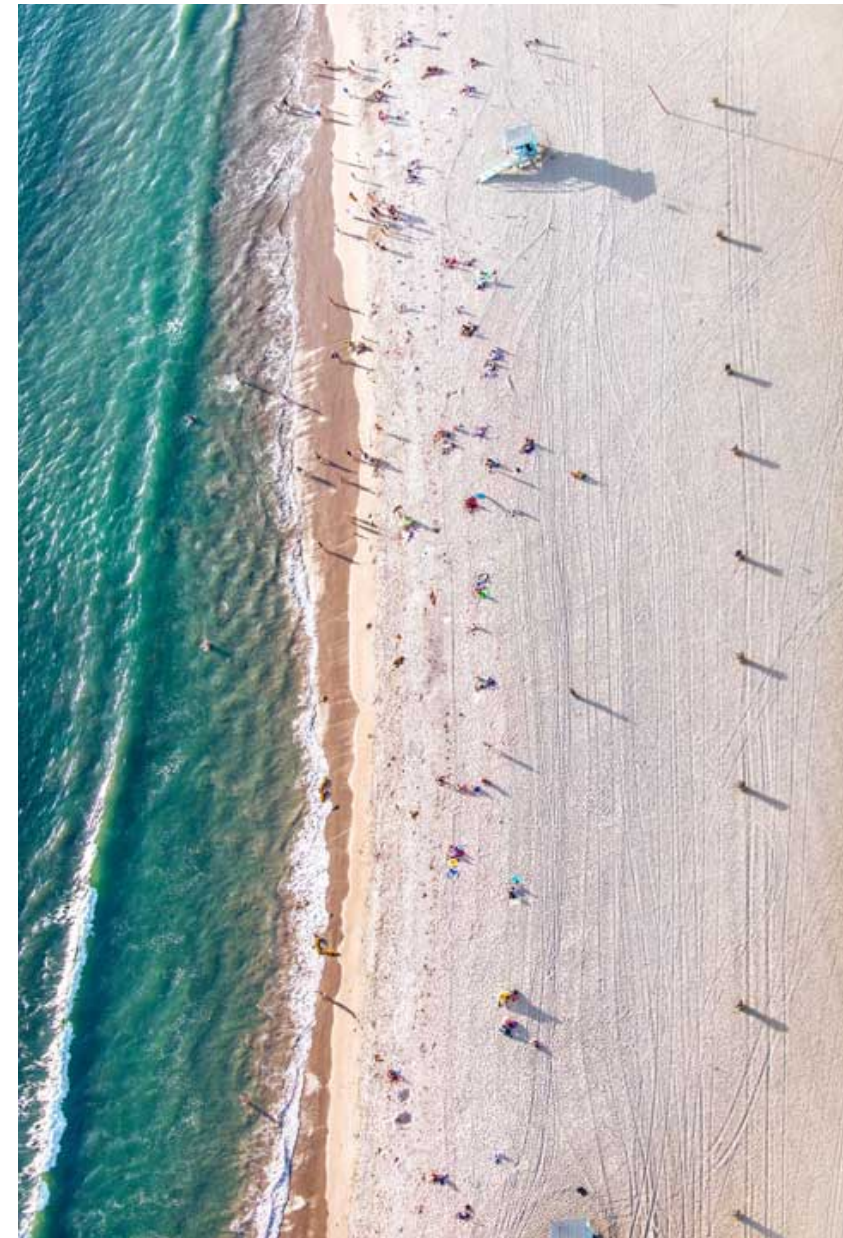
June 2020

# Category review: Chips

Retail Analytics



Classification: Confidential



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

## 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.

We all have a responsibility to use data for good

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

- Highest number of purchases came from Older families (from the Budget category), Young singles/ couples (from the Mainstream category) and Retirees (from the Mainstream category).
- Mainstream Young singles/couples spent the highest average price for chips (~ \$4.06), with Mainstream Midage singles/couples the second highest spender per average price (~\$3.99)

02

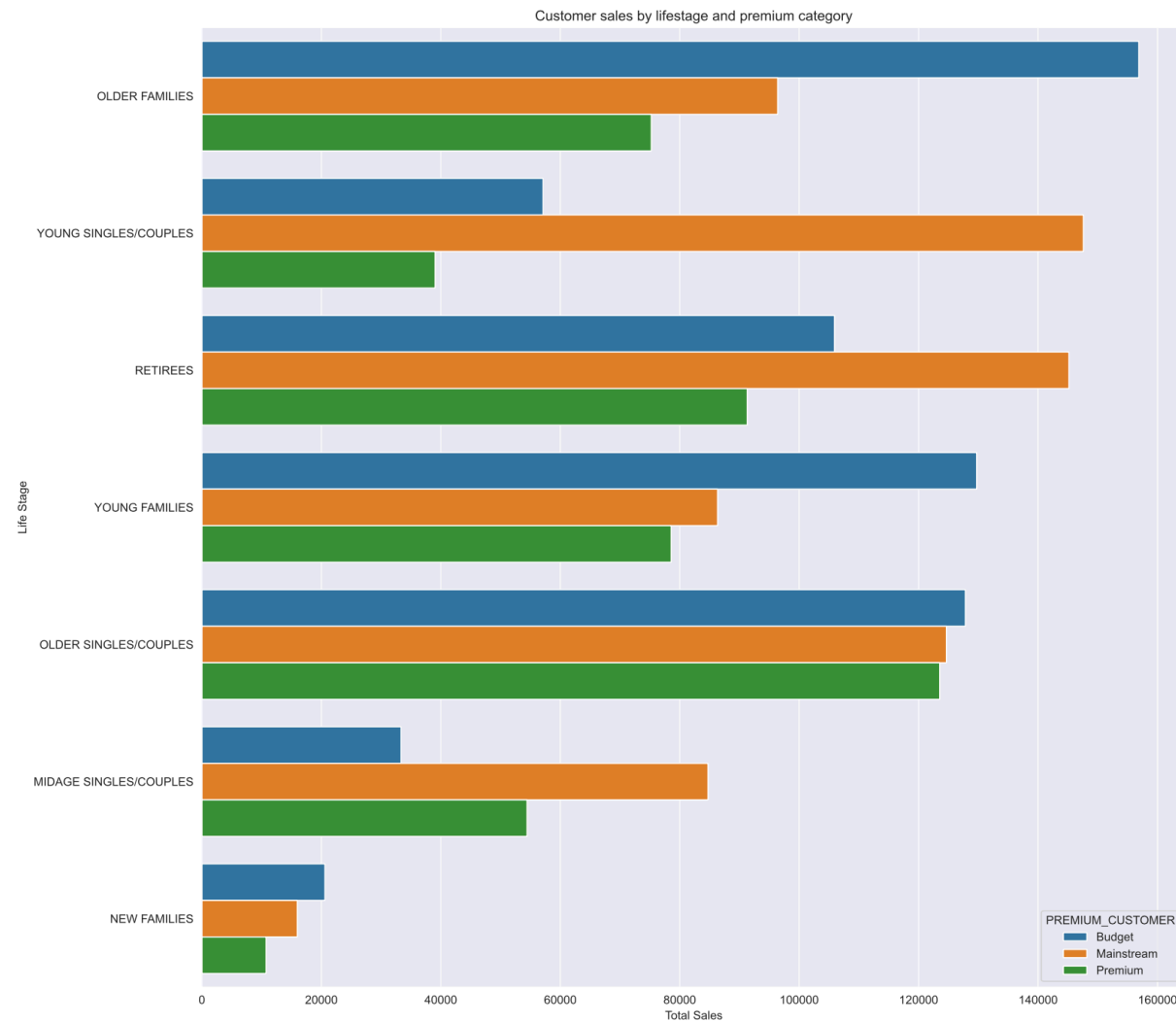
## Task 2

- Trial stores 77 and 86 had a significant increase in sales in total sales across the trial period when compared to their control stores 233 and 155 respectively
- Trial store 88 also had an increase in total sales, however this increase was not statistically significant

# 01

Category

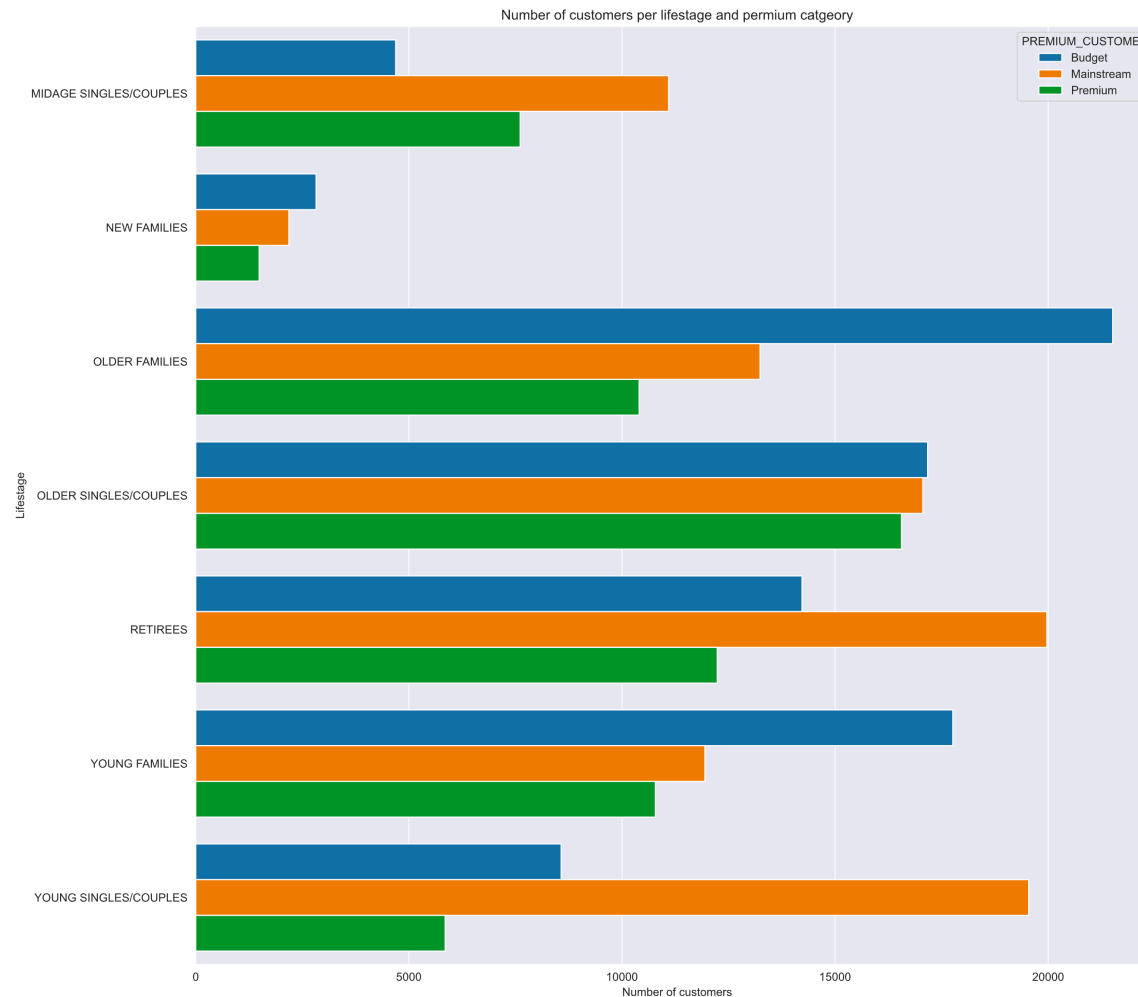
Highest sales come from Older families (budget) and Young singles/couples (mainstream)



Highest spend per packet of chips came from Mainstream Young singles/couples

			AVG_CHIP_PRICE
LIFESTAGE	PREMIUM_CUSTOMER		
YOUNG SINGLES/COUPLES	Mainstream		4.065642
MIDAGE SINGLES/COUPLES	Mainstream		3.994241
RETIREES	Budget		3.924404
	Premium		3.920942
NEW FAMILIES	Budget		3.917688
	Mainstream		3.916133
OLDER SINGLES/COUPLES	Premium		3.893182
	Budget		3.882096
NEW FAMILIES	Premium		3.872110
RETIREES	Mainstream		3.844294
OLDER SINGLES/COUPLES	Mainstream		3.814665
MIDAGE SINGLES/COUPLES	Premium		3.770698
YOUNG FAMILIES	Premium		3.762150
	Budget		3.760737
OLDER FAMILIES	Budget		3.745340
MIDAGE SINGLES/COUPLES	Budget		3.743328
OLDER FAMILIES	Mainstream		3.737077
YOUNG FAMILIES	Mainstream		3.724533
OLDER FAMILIES	Premium		3.717000
YOUNG SINGLES/COUPLES	Premium		3.665414
	Budget		3.657366

Largest proportion of customers come from the Older families (mainstream), Retirees (mainstream) and Young singles/couples (mainstream) categories.



# 02

## Trial store performance



Trial store/ Control store pairs based off a metric taking the correlation and magnitude into equal consideration

```
TRIAL_STORE  CONTROL_STORE
77           233           0.994554
              46           0.983852
              188          0.981705
dtype: float64
TRIAL_STORE  CONTROL_STORE
86           155           0.984800
              109          0.976618
              225          0.975346
dtype: float64
TRIAL_STORE  CONTROL_STORE
88           40            0.968176
              26            0.957020
              58            0.953097
dtype: float64
```

Trial store 77 had significant increase in sales in March and April.  
Trial store 86 had significant increase in sales in March  
Trial store 88 had an increase, however it was not significant

```
Trial store: 77 Control store: 233
Month: 201902 Z-score: -0.8435806220494324

Month: 201903 Z-score: 2.490446473475577

Month: 201904 Z-score: 4.448806995302796

Trial store: 86 Control store: 155
Month: 201902 Z-score: 1.3077596199049548

Month: 201903 Z-score: 5.828582596615292

Month: 201904 Z-score: 0.7867590051021373

Trial store: 88 Control store: 40
Month: 201902 Z-score: -0.06747939544188027

Month: 201903 Z-score: 1.4413280336576062

Month: 201904 Z-score: 0.7650631287827987

95% CI: 1.9431802803927816
```



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