



# Quantum Data Analytics Virtual Internship

Task 1: Analysing Customer Shopping Data For Chips



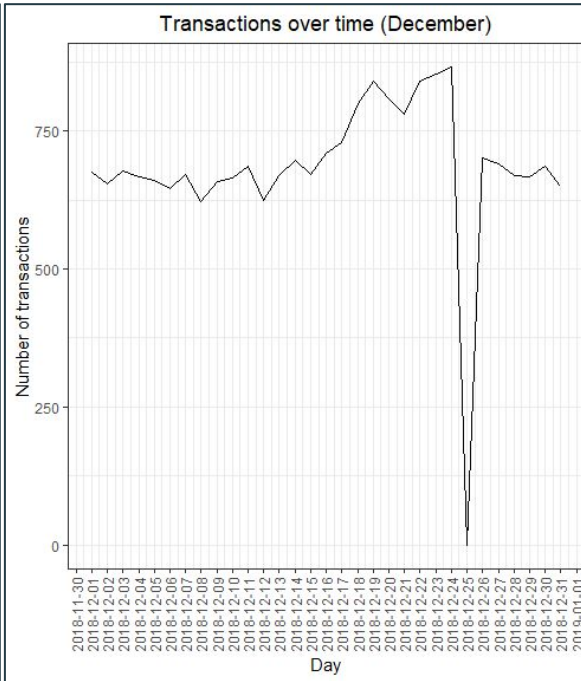
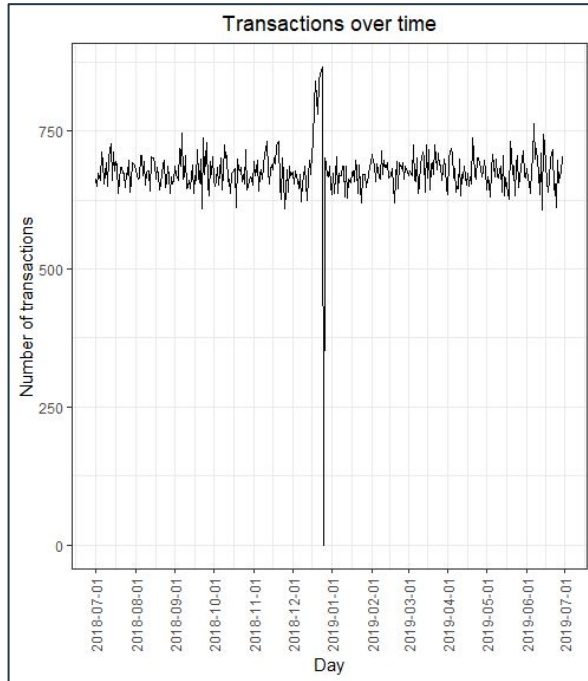
# Task Objective

Hello,

This presentation highlights all the key insights produced from the customer and transaction data regarding chip products. There are very clear visualisation alongside brief qualitative comments offering more insight into the findings we have observed.

The task was generate insights for Chips Category Manager for the store which is a client of ours, to help determine which customer segment the manager should focus on and give the manager a clearer understanding of the customer base which buy Chip products from the stores

# Transactions Over Time

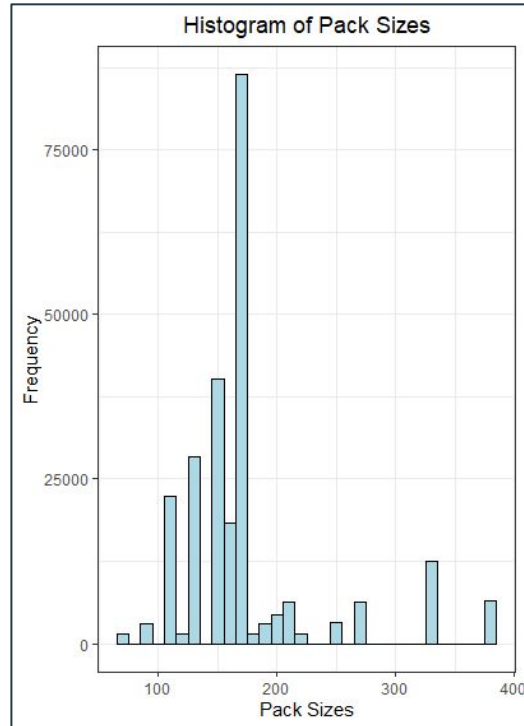


The line graph to the right shows the number of transactions occurring each day over time.

Around December time there is a clear surge in transactions, this shows the effect of the holiday seasons on transactions for chips. People tend to have huge gatherings on the lead up to Christmas day, meaning more resources are needed than average.

No stores open on Christmas day hence the huge drop in December.

# Histogram Of Pack Sizes

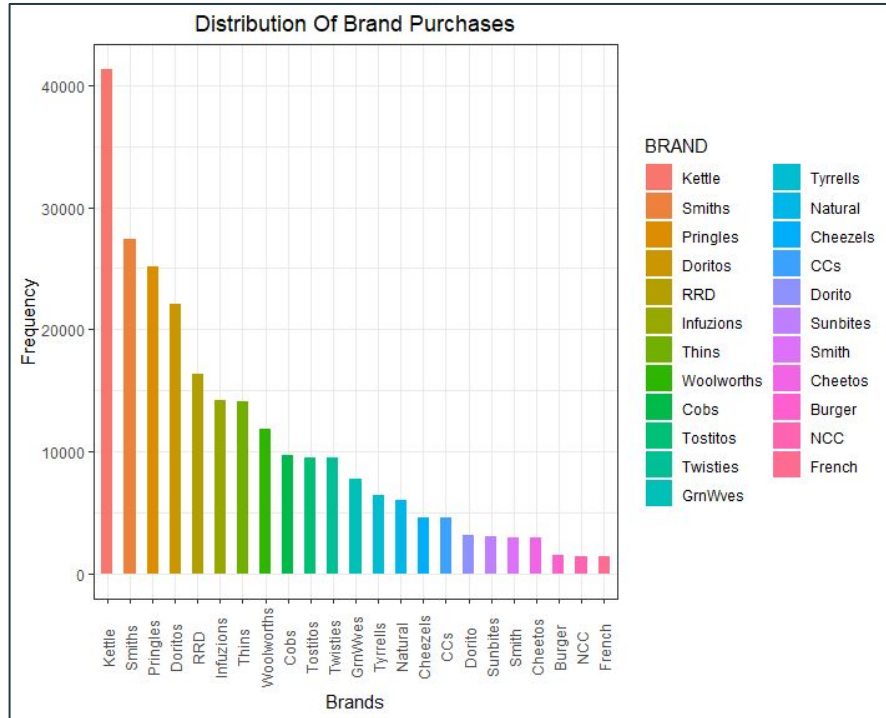


Most of the chips product sizes are concentrated between 100g and 200g.

For this distribution there is a mean of 175.6g and a standard deviation of 59.4g

At the extreme ends we have a max pack size of 380g and a minimum of 70g.

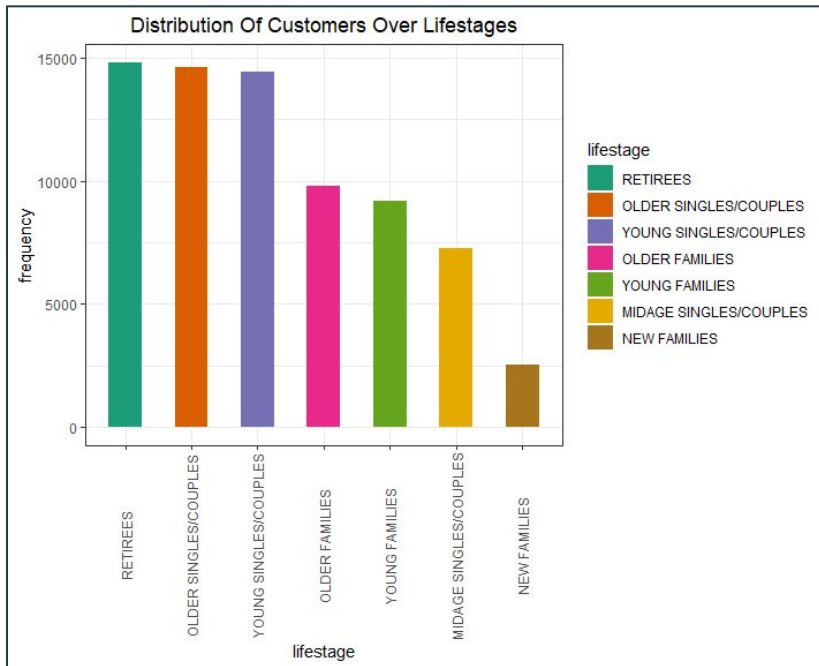
# Distribution Of Brand Purchases



The brand KETTLE leading the pack with the largest amount of purchases throughout the stores.

There is 41288 transactions including KETTLE chips.

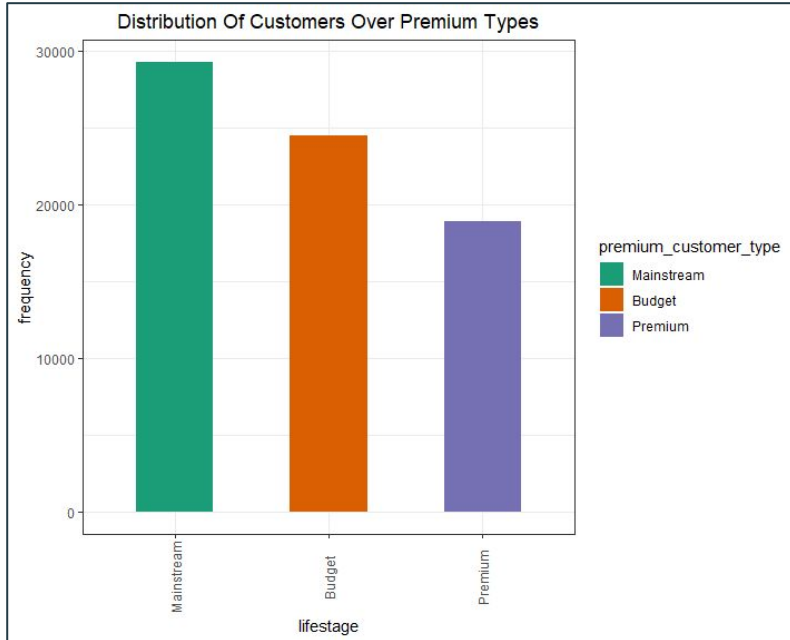
# Distribution Of Customers Over Life-stages



The largest proportion of the customer base for chips are RETIREES followed by OLDER SINGLE/COUPLES then YOUNG SINGLE/COUPLES .

Interesting to note, those who are new families are the smallest proportion of the customer base. This could be due to the fact bringing up young children, parents are more focused on providing health focused snacks for their children.

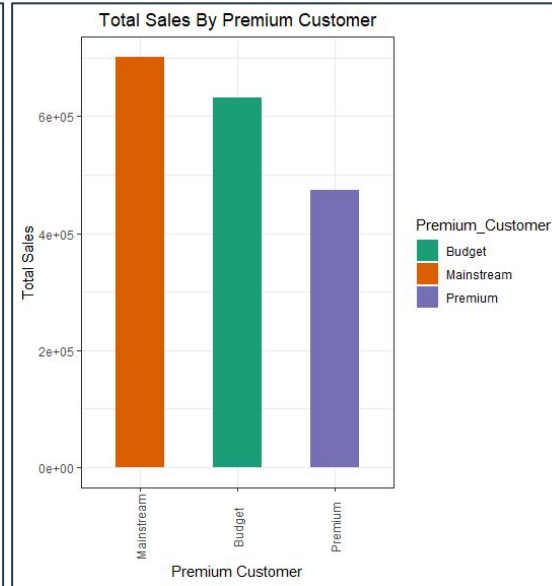
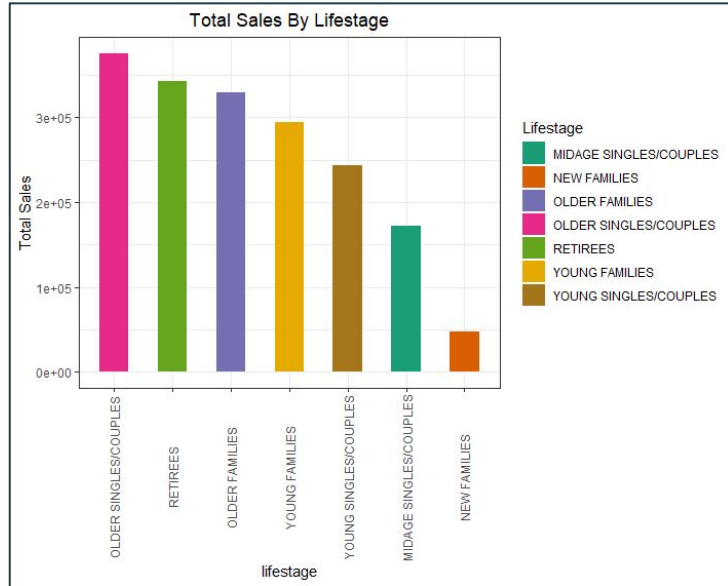
# Distribution Of Customers Over Premium Types



Majority of the customers, are buying chips which are considered to be MAINSTREAM with BUDGET and PREMIUM chips following on.

Popularity, of MAINSTREAM chips can be attested to the marketing techniques, employed by the marketing department and the influence of pop culture, on which products customers would gravitate towards.

# Total Sales By Lifestage and Customer Premium

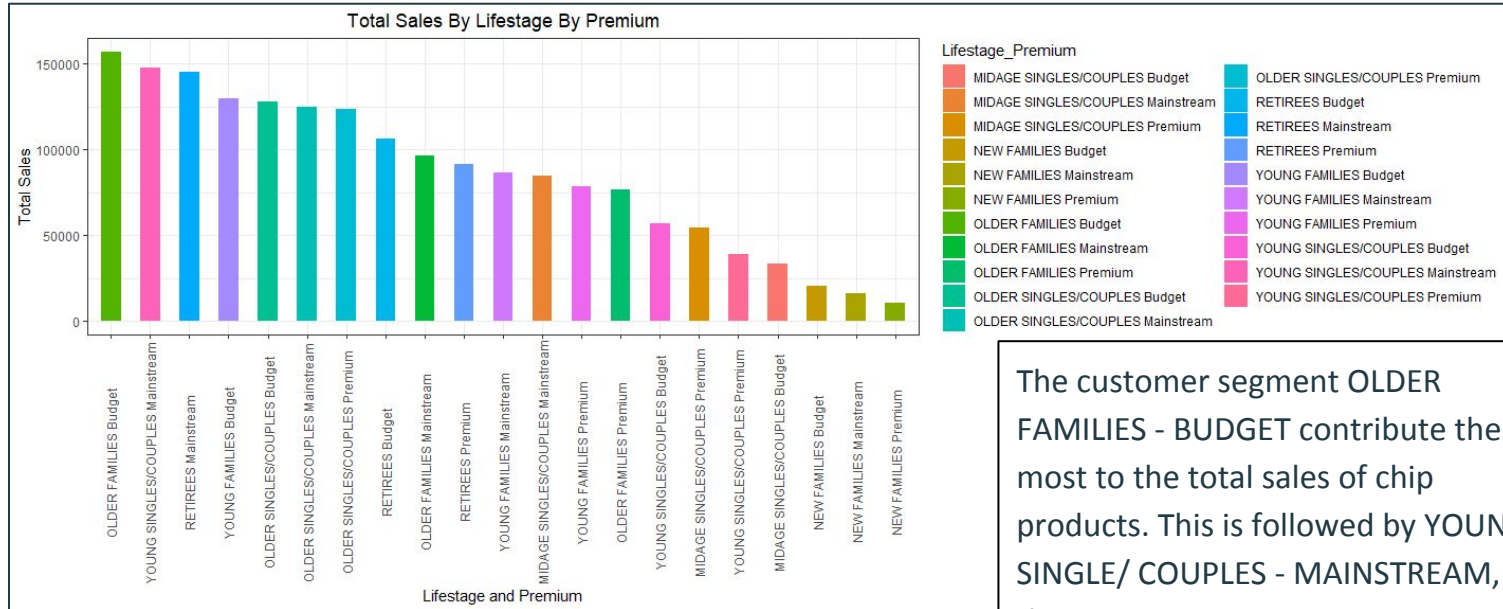


In terms of life stages, the customer segment OLDER SINGLE/COUPLES, has contributed the most to the total sales of chips, coming to a value of \$376019.65.

Comparing Premium Customers, majority of the total sales is attributed by MAINSTREAM chips, coming to a value of \$700865.4

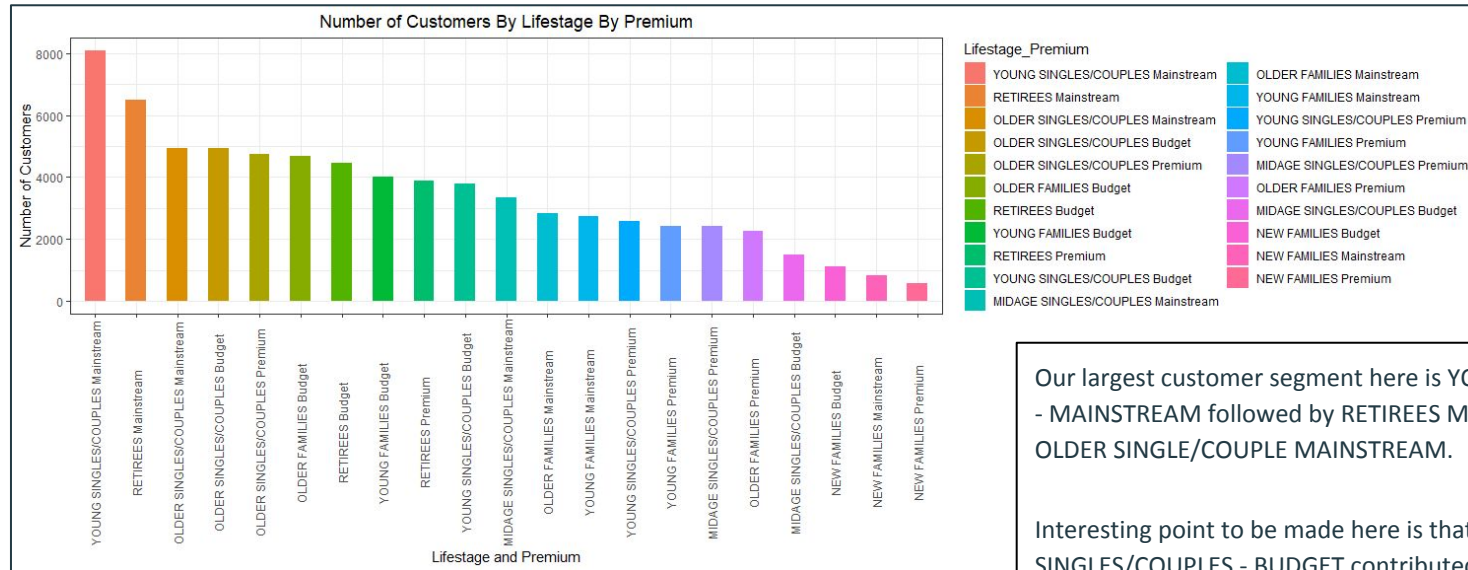


# Total Sales By Lifestage And Customer Premium



The customer segment **OLDER FAMILIES - BUDGET** contribute the most to the total sales of chip products. This is followed by **YOUNG SINGLE/ COUPLES - MAINSTREAM**, then **RETIREES - MAINSTREAM**.

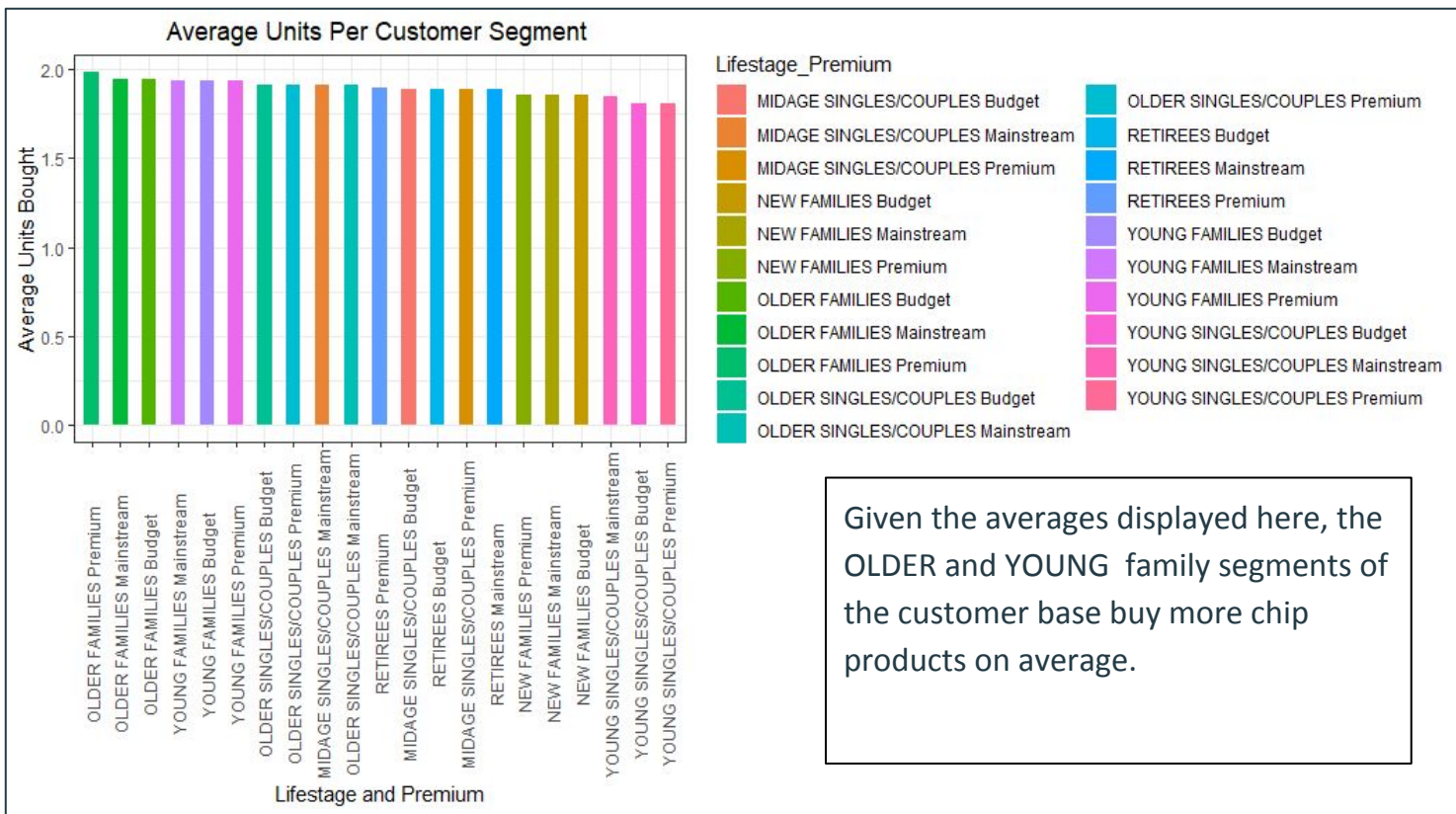
# Number of Customer By Lifestage And Premium



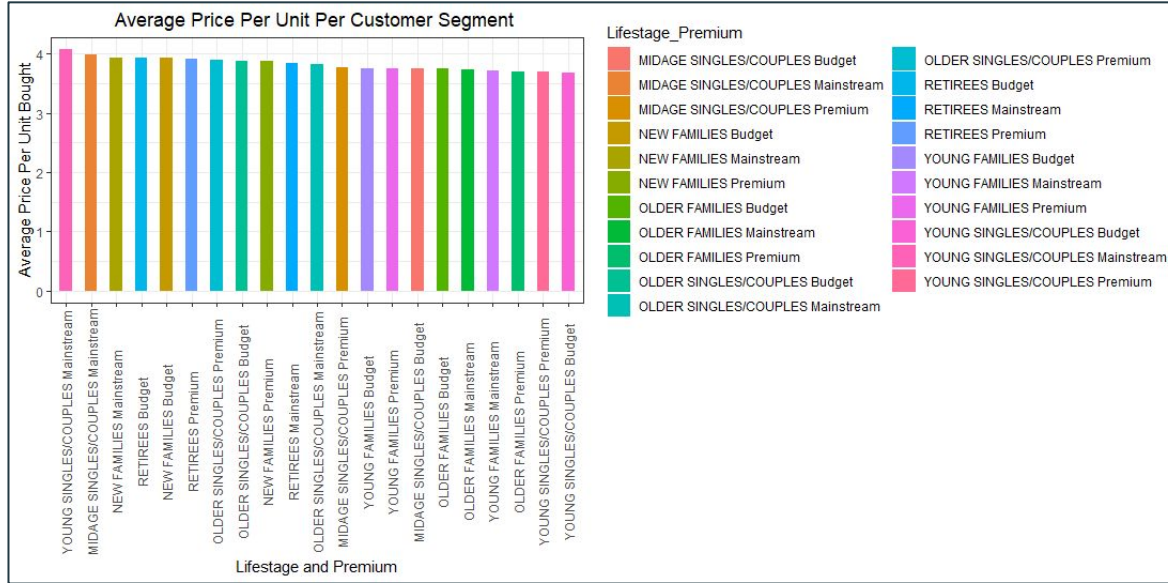
Our largest customer segment here is YOUNG SINGLE/COUPLE - MAINSTREAM followed by RETIREES MAINSTREAM then OLDER SINGLE/COUPLE MAINSTREAM.

Interesting point to be made here is that although OLDER SINGLES/COUPLES - BUDGET contributed the most to to TOTAL SALES on the previous slide, they are the 4th largest customer segment, hence meaning this could be a case of this segment buying multiple unit of chips.

# Average Units Per Customer Segment



# Average Price Per Unit Per Customer Segment

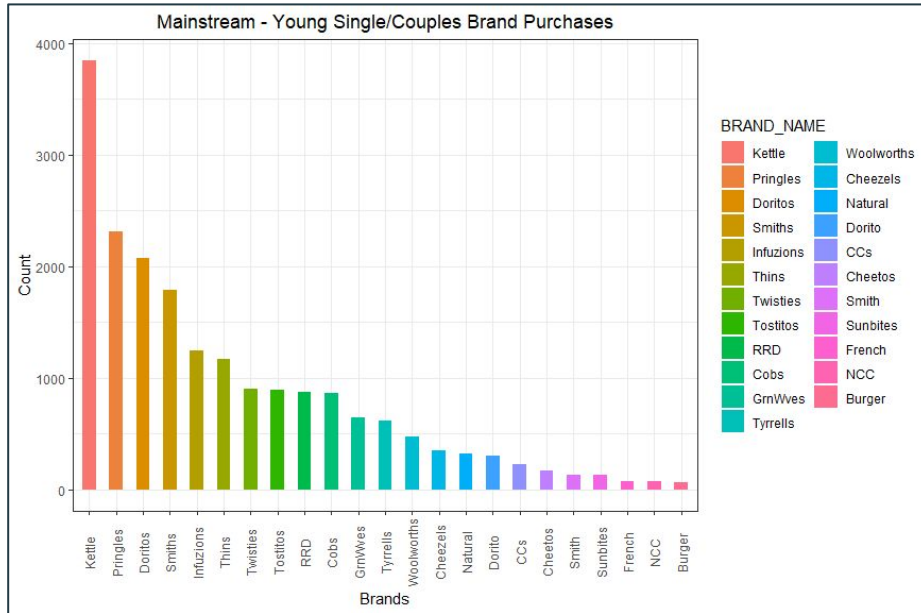


YOUNG SINGLE/COUPLES & MIDAGE SINGLE/COUPLES - MAINSTREAM, on average pay the most for a single packet of chips. On Average they pay \$4.07 and \$3.99 respectively for a single chip product.

Possible reason for this could be less financial responsibilities and less people dependant on them, giving them the flexibility to spend more on chips.

We shall now focus the analysis, on YOUNG SINGLE/COUPLES MAINSTREAM, as they seem to spend more on chip products on average.

# Mainstream - Young Single/Couples Brand Purchases

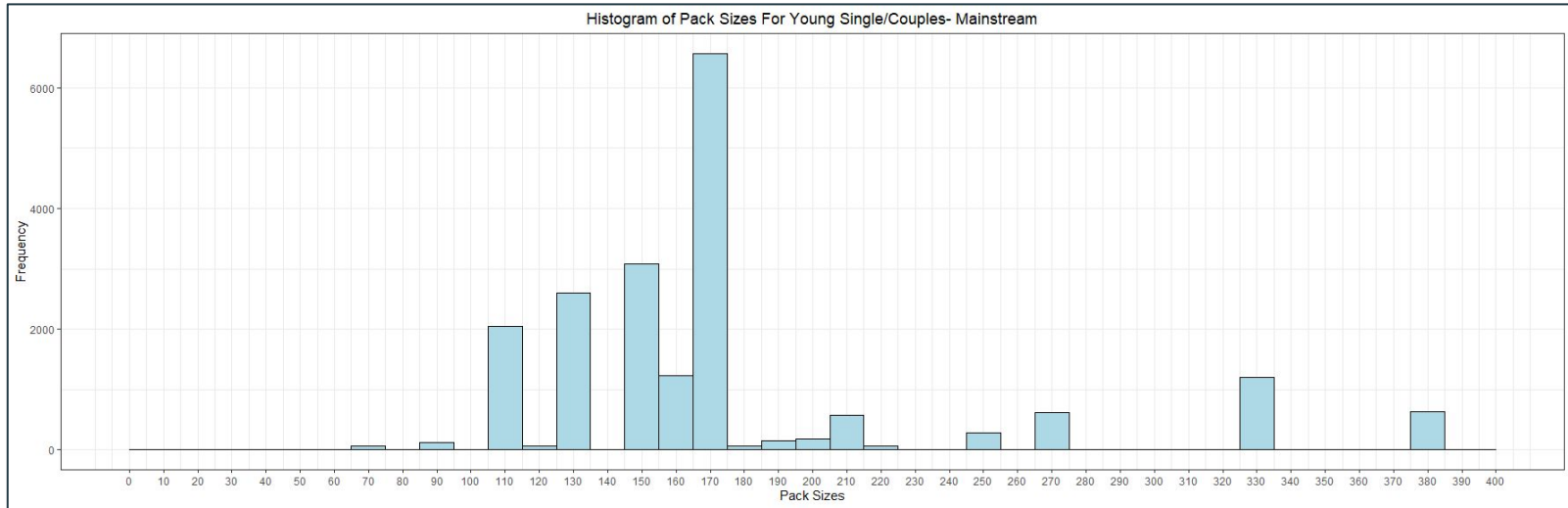


For this customer segment majority of the purchases, are from the brand KETTLE. There has been 3884 transactions with KETTLE chips.

This is a significant difference between purchases of KETTLE chips and PRINGLES, there is a margin of 1529 transactions. For PRINGLES there was only 2315 transactions with PRINGLES.

We can say for now KETTLE chips is the most desired product for this segment.

# Histogram of Pack Size for Young Single/Couples - Mainstream



Majority of the chip products this segment purchases, are between the 165g to 175g interval (inclusive). Within this distribution there is a mean of 178.3g and a standard deviation of 63.9g . Comparing this to the whole customer base for chips the, mean and standard deviation is slightly larger.