

TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

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Agenda

1. Introduction
2. Data Exploration
3. Model Development
4. Interpretation

Introduction

Identifying & recommending high value customers

The problem

- Sprocket Central Pty Ltd sells high value bikes.
- The marketing team wants to improve the profits.
- Sprocket Central Pty Ltd has provided a new list of 1000 potential customers which of these new customers should be targeted to drive the most value for the organisation.

Data insights

Targeting high value customers based on customer demographics and attributes.

- Bikes purchases for the last 3 years by gender.
- wealth segments by age.
- states by number of owned cars.
- industry bike related purchase.
- Customer classifications.

Data Exploration

Data Quality Assessment

Transactions dataset:

- **Accuracy:** missing values for [profit].
- **Completeness:** in complete values [customer id – brand – product line – product class – product price].
- **Validity:** format for [list price – product sold date].

Customer Demographic:

- **Accuracy:** [age - dob].
- **Completeness:** [job title – customer id].
- **Consistency:** [gender].
- **Currency:** [deceased customer].
- **Relevancy:** [default] removed.

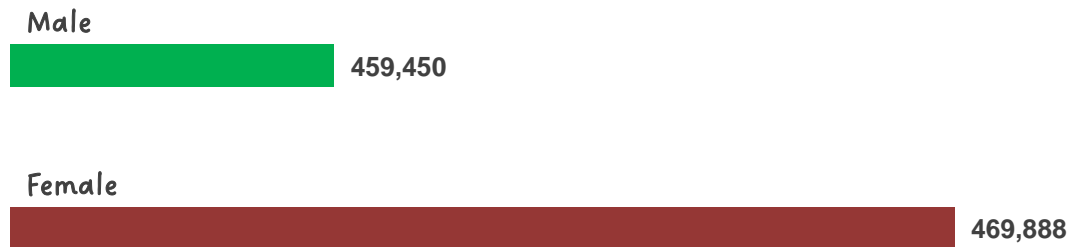
Customer Address:

- **Completeness:** [customer id].
- **Consistency:** [states]

Data Exploration

Bikes past 3 years purchases

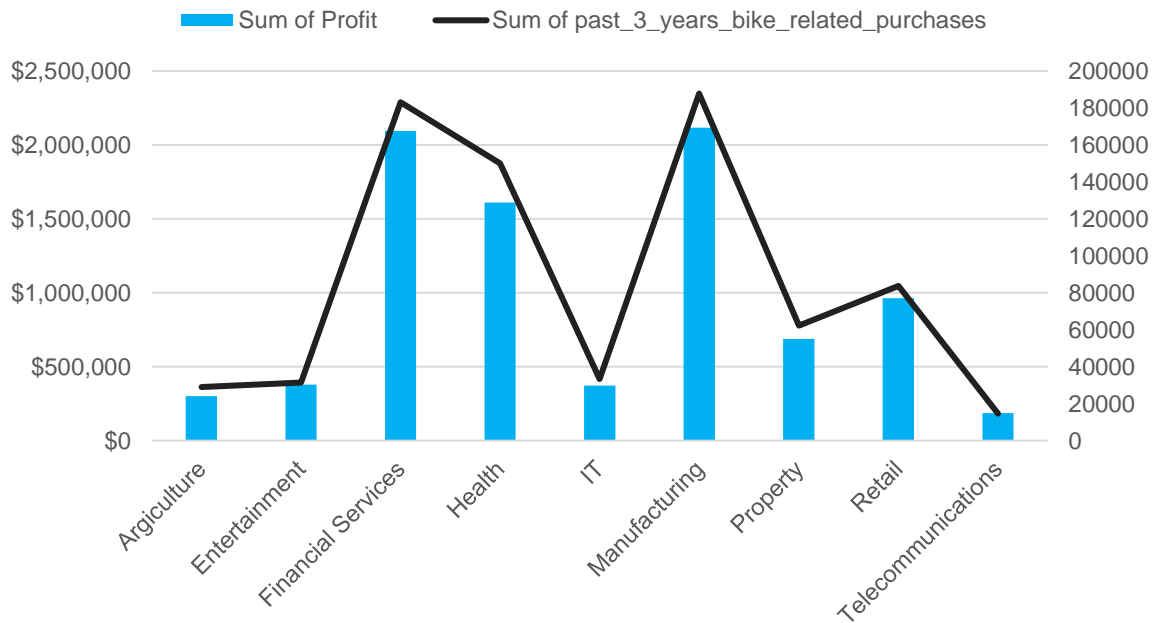
Females are higher than males by 1% for bikes purchases over the last 3 years.



Data Exploration

Industry bike related purchase

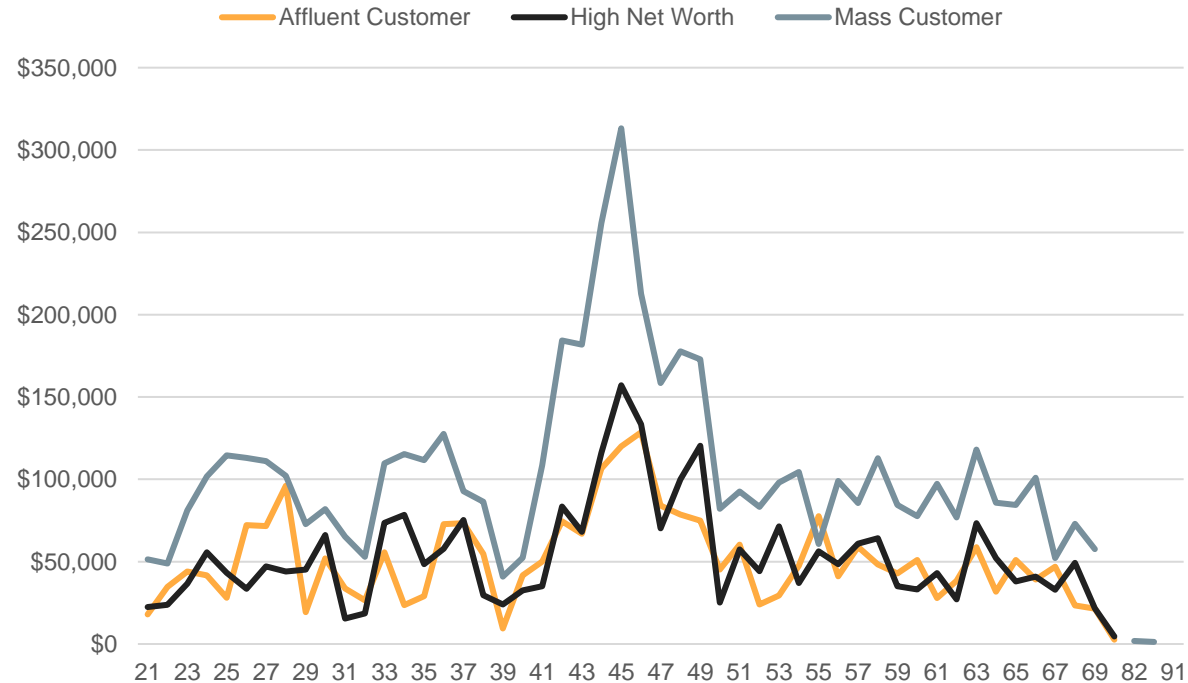
- Only three industries has high profits.
- Most of the industries are below the average \$968,398 .
- There is a direct relation between number of bikes sold and profit made.



Data Exploration

wealth segment by age.

- As shown the 3 peaks are from the age of 40 - 50.
- The mass customer makes the most profits for all the ages.

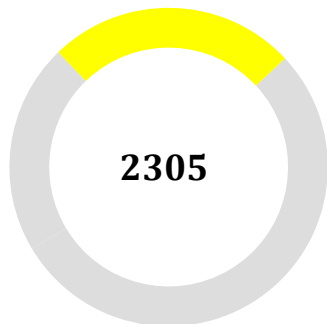


Data Exploration

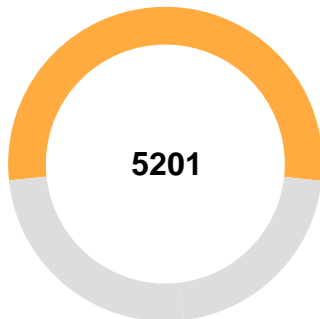
states by number of owned cars.

VIC & QLD 've the highest potential since they 've a small portion of the owned cars unlike NSW has the double of their number together.

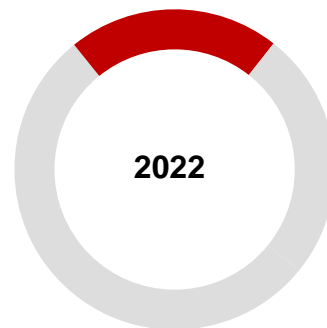
VIC



NSW



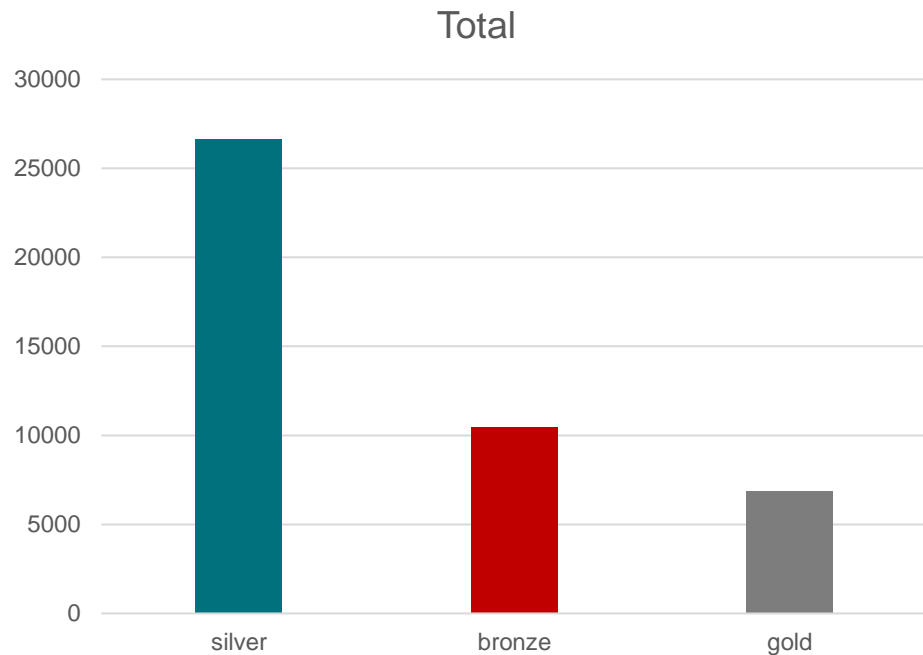
QLD



Model Development

Customer classification – RFM analysis

I've divided the customers based on the RFM analysis into 3 groups, most of the customers are in the silver section.



Interpretation

Customer classification – RFM analysis

The score is from 30 – 0. higher than 20 is gold, between 20 and 12 is silver, less than 12 is bronze.

	customer_id	transaction_date	days till now	Count of product_id	Sum of Profit	R	F	M	RFM	customer title
1										
2	1506	12/30/2017	0	11	6435.1	9	9	9	27	gold
3	2659	12/30/2017	0	3	8143.93	9	0	9	18	silver
4	3433	12/30/2017	0	7	5925.74	9	6	9	24	gold
5	2055	12/30/2017	0	2	5563.63	9	0	9	18	silver
6	2434	12/30/2017	0	6	6874.53	9	5	9	23	gold
7	1000	12/30/2017	0	5	5383.48	9	3	8	20	silver
8	151	12/30/2017	0	3	5665.41	9	0	9	18	silver
9	195	12/30/2017	0	9	9633.41	9	8	9	26	gold
10	934	12/30/2017	0	6	4689.76	9	5	8	22	gold
11	1328	12/30/2017	0	5	5351.58	9	3	8	20	silver
12	1407	12/30/2017	0	5	3796.53	9	3	6	18	silver
13	1970	12/30/2017	0	7	3660.48	9	6	6	21	gold
14	2865	12/30/2017	0	7	5283.91	9	6	8	23	gold
15	3169	12/30/2017	0	3	4539.95	9	0	8	17	silver
16	1787	12/30/2017	0	6	4865.49	9	5	8	22	gold
17	2372	12/30/2017	0	5	3031.18	9	3	5	17	silver
18	993	12/30/2017	0	5	2738.89	9	3	4	16	silver
19	1594	12/30/2017	0	7	4320.3	9	6	7	22	gold
20	1721	12/30/2017	0	2	3766.35	9	0	6	15	silver
21	86	12/30/2017	0	4	2360.09	9	1	3	13	silver
22	1052	12/30/2017	0	5	3260.32	9	3	5	17	silver
23	1985	12/30/2017	0	8	2665.3	9	8	4	21	gold

Thank You