TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

Shubham Malunjkar

Agenda

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

Introduction

Identify and Recommend the Top 1000 Customers to target from the Dataset

Outline

- Sprocket Central is a company that specializes in high-quality bikes and cycling accessories.
- The marketing team of the company is looking to boost sales.
- Using 3 datasets, the aim is to analyze and recommend the top 1000 customers for the company to target.
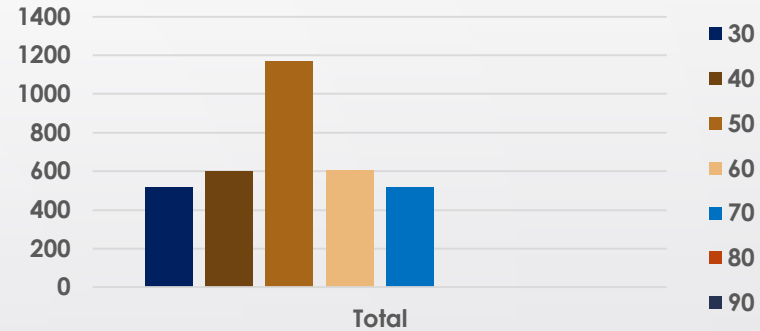
Contents for data analysis

- "New" and "old" age customers distributions
- Bike-related purchases over the last 3 years by gender.
- Job industry distribution.
- Wealth segmentation by age category.
- RFM analysis and customer classification.

Data Exploration

"New" and "Old" Customer age distribution

- Most customers are aged between 40-49 in the old customers' list as well as the new customer list.
- The lowest group is 20 and 80+ for both lists.
- Both graphs suggest that the 20-49 age group is the most populated.

Age distribution of old customers
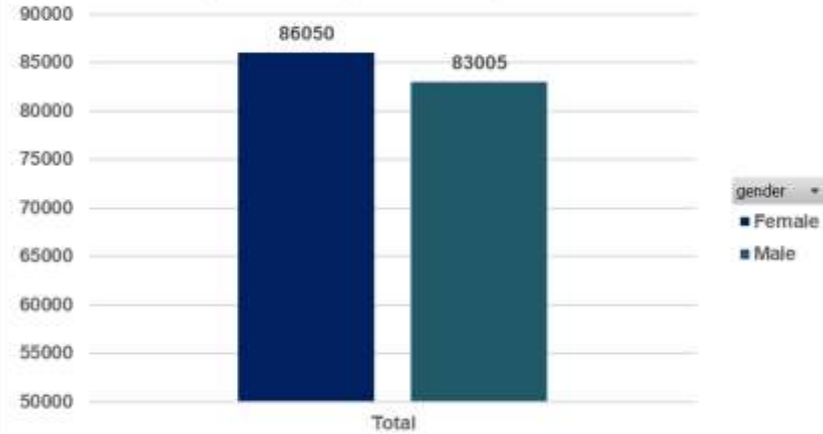
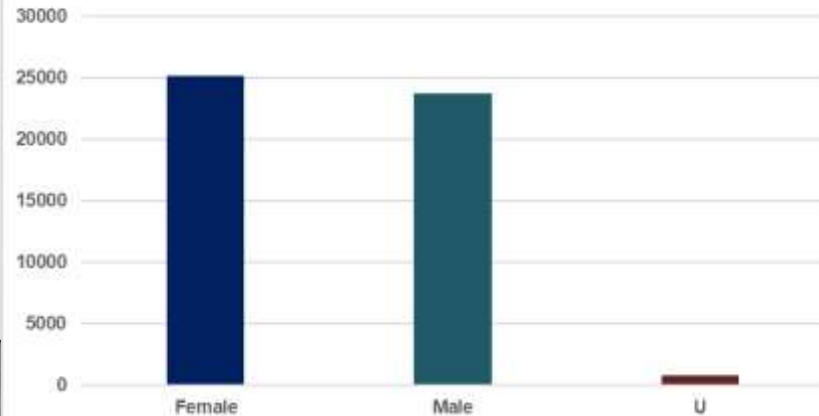

Age distribution of new customers
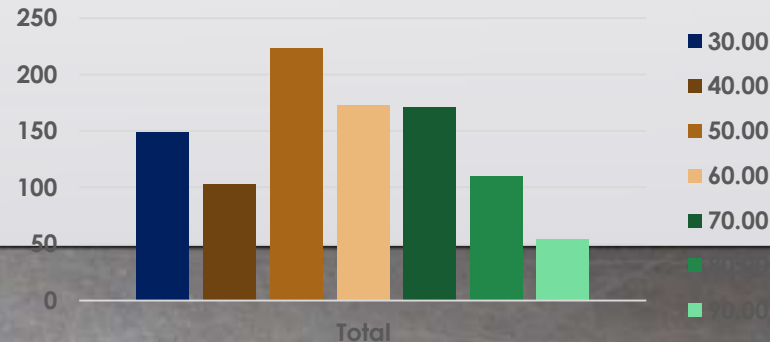
Data Exploration

Bike-related purchases in last 3 years by gender.

Over the last 3 years almost 50% of bike-related purchases are done by females 48% of purchases are made by men and almost 2% are done by unknown gender.

Last 3 year bike purchase by old customers

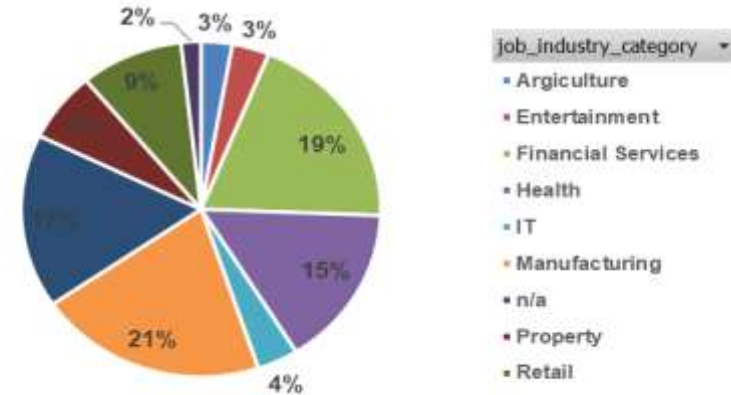Last 3 year bike related purchase by new customers

Data Exploration

Job industry distribution.

- The Smallest number of customers are from Agriculture and Telecommunications.
- Similar pattern is seen in both lists.

Job Industry category of old customers

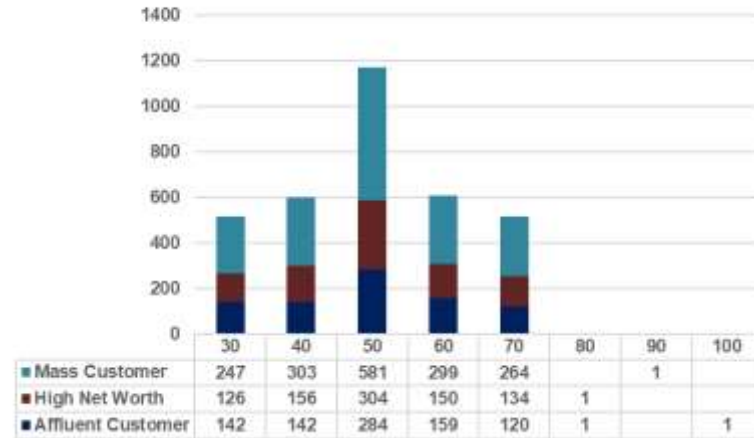Job Industry category of new customers
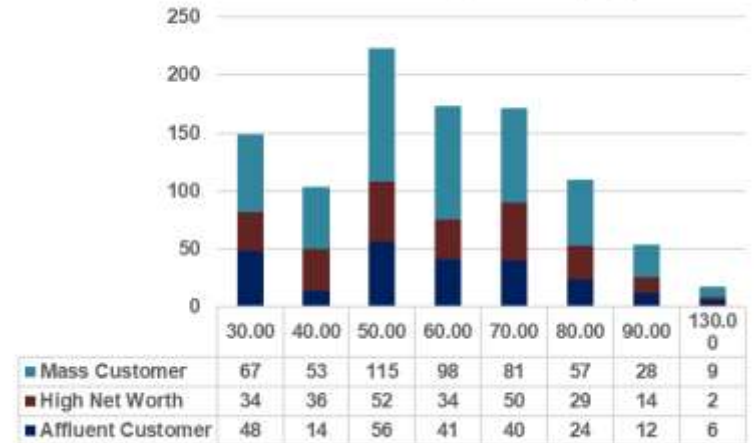
Data Exploration

Wealth Segmentation by age category

- In both lists the largest number of customers are classified under the mass customer category.
- The next category is high net worth.
- Affluent customers outperform the high net worth category in the 40-49 age group.

Old customer wealth segment by age

	30	40	50	60	70	80	90	100
Mass Customer	247	303	581	299	264		1	
High Net Worth	126	156	304	150	134	1		
Affluent Customer	142	142	284	159	120	1		1

New customer wealth segment by age

	30.00	40.00	50.00	60.00	70.00	80.00	90.00	130.00
Mass Customer	67	53	115	98	81	57	28	9
High Net Worth	34	36	52	34	50	29	14	2
Affluent Customer	48	14	56	41	40	24	12	6

Age Category ▾

Customer by state

- Clearly, most customers of the company are from New South Wales (NSW).
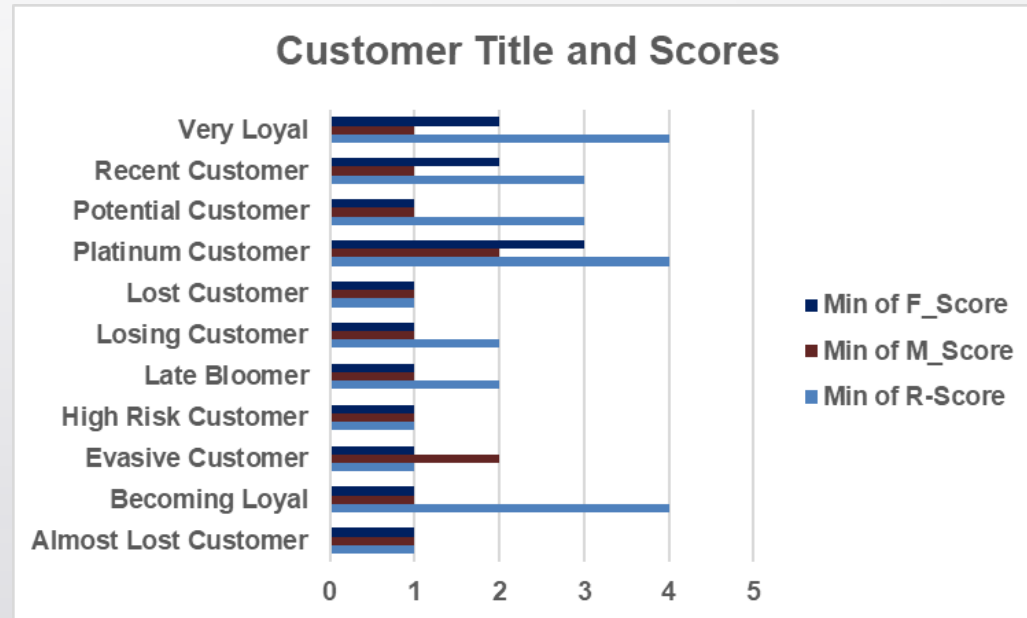- Company's target state for its marketing strategy should be in NSW.

Customers by state
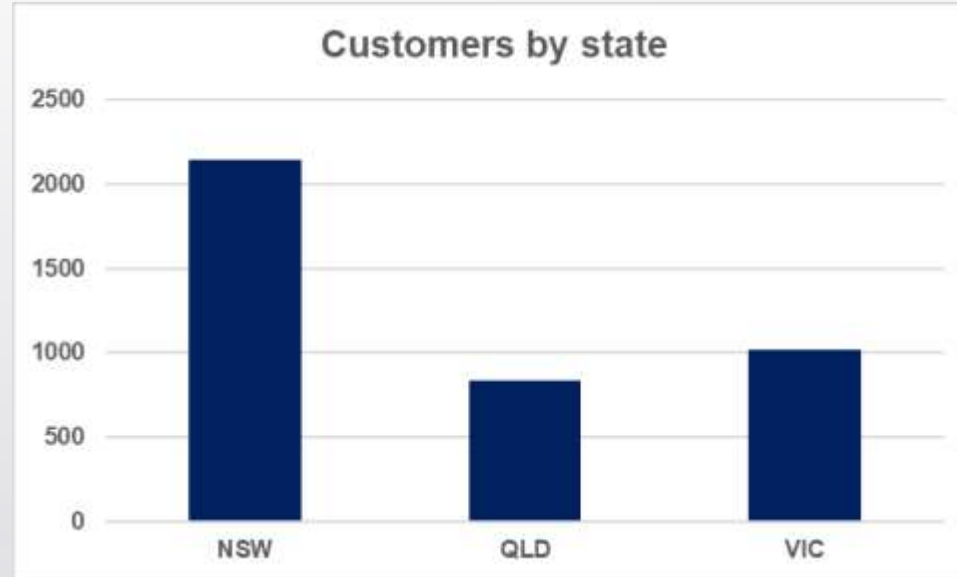
RFM analysis and customer classification

- RFM analysis is used to determine which customers a business should target to increase its revenue and value.
- The RFM (Recency, Frequency, Monetary) model shows customers that have displayed high levels of engagement with the business in the three categories mentioned.

Customer Title and Scores

Legend:
- Min of F_Score
- Min of M_Score
- Min of R-Score

Categories (top to bottom): Very Loyal, Recent Customer, Potential Customer, Platinum Customer, Lost Customer, Losing Customer, Late Bloomer, High Risk Customer, Evasive Customer, Becoming Loyal, Almost Lost Customer

X-axis: 0, 1, 2, 3, 4, 5

Customer Distribution by RFM

- Customers are categorized according to RFM score into four categories. (Bronze, Silver, Gold, Platinum)

Customer Title by RFM analysis

Category	Value
BRONZE	1020
GOLD	844
PLATINUM	812
SILVER	817
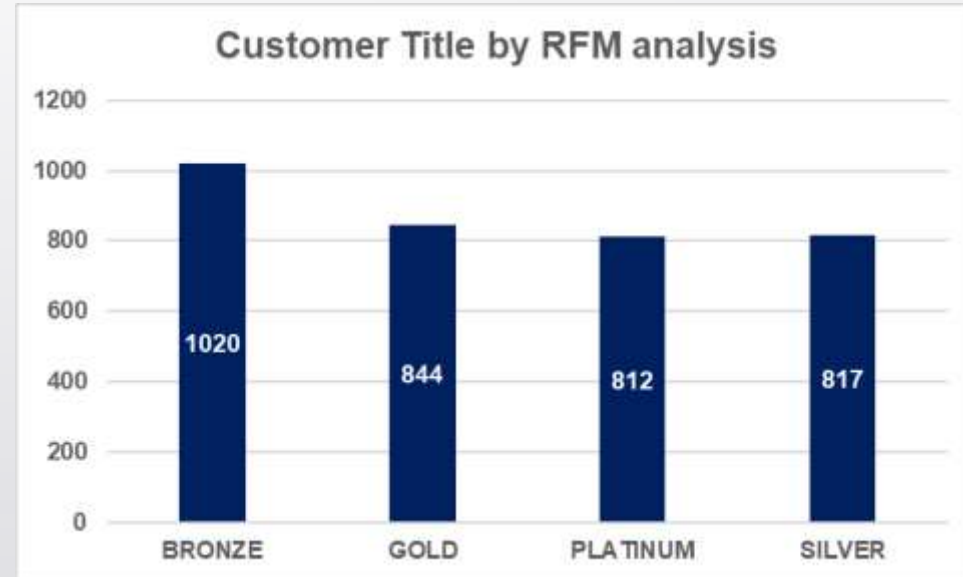
Data Exploration

RFM Scores by numbers.

Recent Customers

1	862
2	866
3	857
4	908

Frequent customers

1	1202
2	602
3	1015
4	674

Profitable customers

1	874
2	873
3	872
4	874
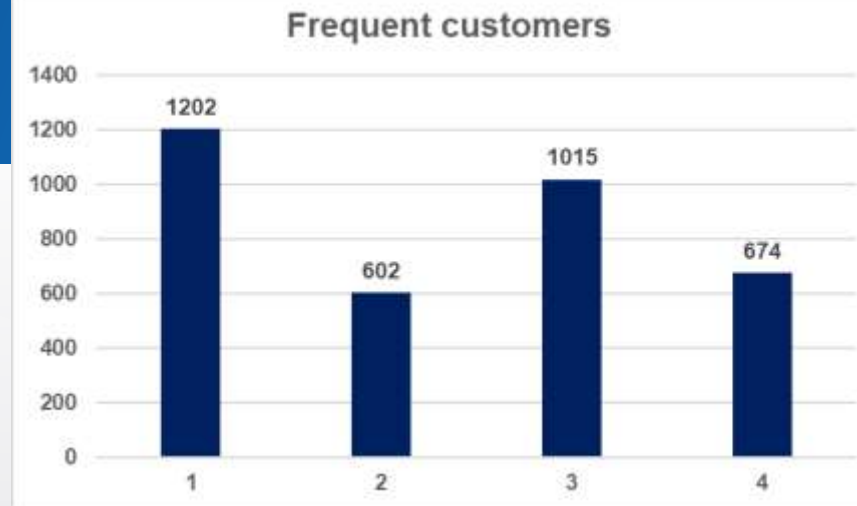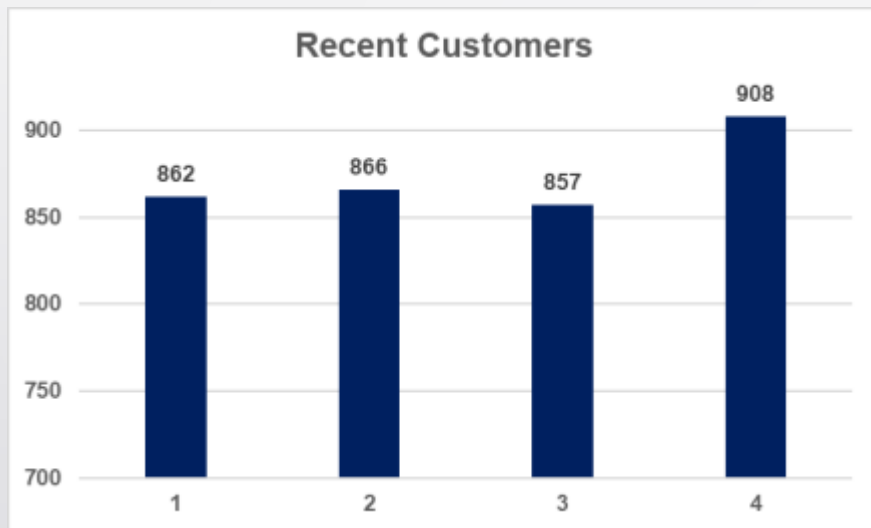
Model Development

Customer title definition list with RFM values assigned.

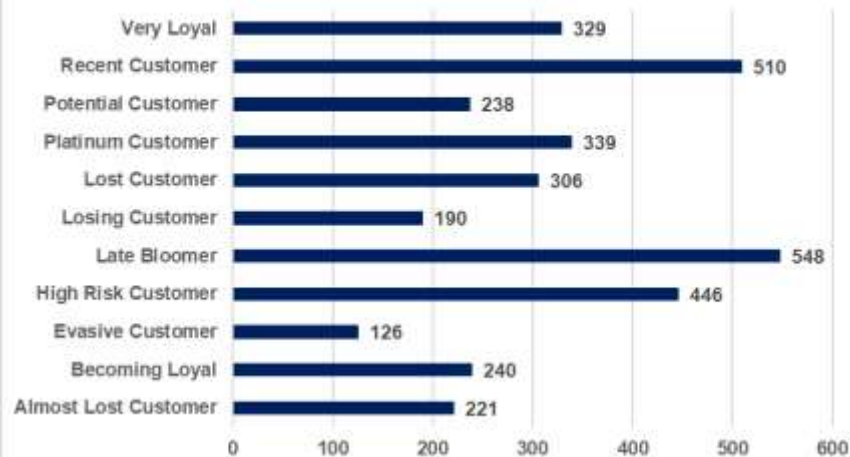| Rank	Customer Title	Desciption	RFM Value
1	Platinum Customer	Most recent buy, buys often, most spent.	444
2	Very Loyal	Most recent, buys often, spends large amount of money	433
3	Becoming Loyal	Relatively recent, bought mopre than once, spends large ampount of money	421
4	Recent Customer	bought recently, not very often, average money spent	344
5	Potential Customer	Bought recently, never bought before, spent small amount	323
6	Late Bloomer	No purchases recently,but RFM value is larger than average	311
7	Losing Customer	Purchased a while ago, below average RFM value	224
8	High risk Customer	Purchase was a long time ago, frequency is quite high, amount spent is high	212
9	Almost lost Customer	Very low recency, very low frequency, small ampount spent	124
10	Evasive Customer	Very low recency, very low frequency, small amount spent	112
11	Lost Customer	Very low RFM	111

Model Development

Customer Title Distribution in Dataset

Distribution of customers
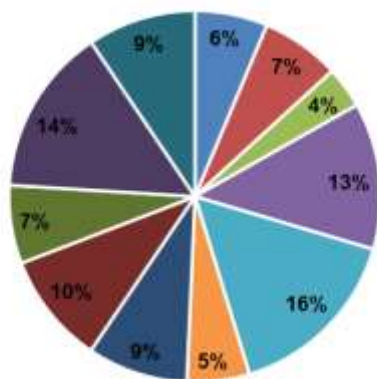
- Almost Lost Customer
- Becoming Loyal
- Evasive Customer
- High Risk Customer
- Late Bloomer
- Losing Customer
- Lost Customer
- Platinum Customer
- Potential Customer
- Recent Customer
- Very Loyal

Distribution of Customers

Customer Title	Count
Very Loyal	329
Recent Customer	510
Potential Customer	238
Platinum Customer	339
Lost Customer	306
Losing Customer	190
Late Bloomer	548
High Risk Customer	446
Evasive Customer	126
Becoming Loyal	240
Almost Lost Customer	221

Model Development

Summary table of top 1000 customers to target

Rank	Customer Title	Description	Number of customers	Cumulative	Customer Selection
1	Platinum Customer	Most recent buy, buys often, most spent.	339	339	339
2	Very Loyal	Most recent, buys often, spends large amount of money	329	668	661
3	Becoming Loyal	Relatively recent, bought mopre than once, spends large ampount of money	240	908	0
4	Recent Customer	bought recently, not very often, average money spent	510	1418	0
5	Potential Customer	Bought recently, never bought before, spent small amount	238	1656	0
6	Late Bloomer	No purchases recently,but RFM value is larger than average	548	2204	0
7	Losing Customer	Purchased a while ago, below average RFM value	194	2398	0
8	High risk Customer	Purchase was a long time ago, frequency is quite high, amount spent is high	445	2843	0
9	Almost lost Customer	Very low recency, very low frequency, small ampount spent	221	3064	0
10	Evasive Customer	Very low recency, very low frequency, small amount spent	125	3189	0
11	Lost Customer	Very low RFM	304	3493	0

Customer Target and Methodology

Rank	Customer Title	Desciption	Number of customers	Cumulative	Customer Selection
1	Platinum Customer	Most recent buy, buys often, most spent.	339	339	339
2	Very Loyal	Most recent, buys often, spends large amount of money	329	668	661

- Filter through the top 1000 customers by assigning the conditions discussed in the table above.
- The 1000 customers selected would have bought recently, frequently in the past, and tend to spend more than other customers.

Thank You For Reading.