TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

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Agenda

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

Introduction

Goals

- Target potential new customers most likely to maximize the profits based on previous insights
- Previous customers data used to predict new high profit customers

Data Exploration

RFM Analysis on existing customer database

- Based on existing data after RFM analysis it was found that most of the beneficial customers were Silver Category customers
- Followed by Platinum, Gold and Bronze
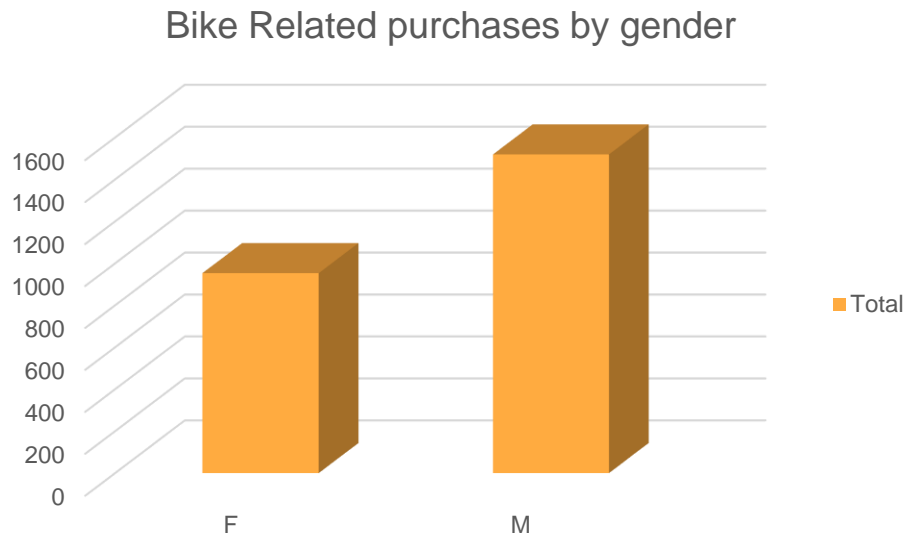- Focus should be on new Silver and Platinum customers
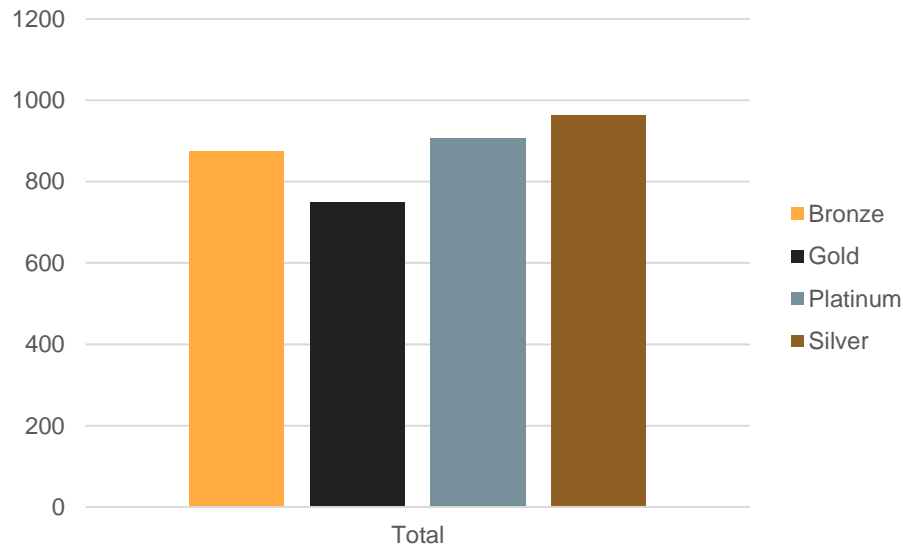
	Column Labels				
	Bronze	Gold	Platinum	Silver	Grand Total
Count of RFM_score	874	748	907	962	3491

Data Exploration

Profits by gender

Based on gender men had more bike related purchases as compared to women

Bike Related purchases by gender

Data Exploration

## Total Profits by age and wealth segment of customers

- Age 20 brought in the most profit
- Ages were rounded and explored in their respective segments
- Ages 44 and 47 followed after 20
- This shows that ages in 20s and 40s should be targeted to maximize profits
- Mass customer segment brought in the most profit
- For age 20 High Net worth also brought in significant profits

Total profits by age and wealth segment
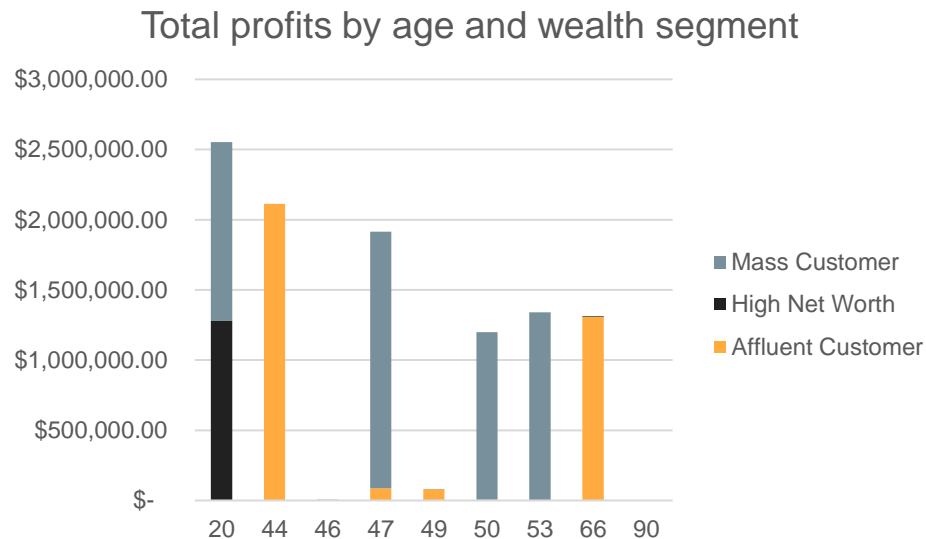
Data Exploration

Total Profits by industry

Health care, Retail and Financial Services brought in the most profits

Total profits by job industry
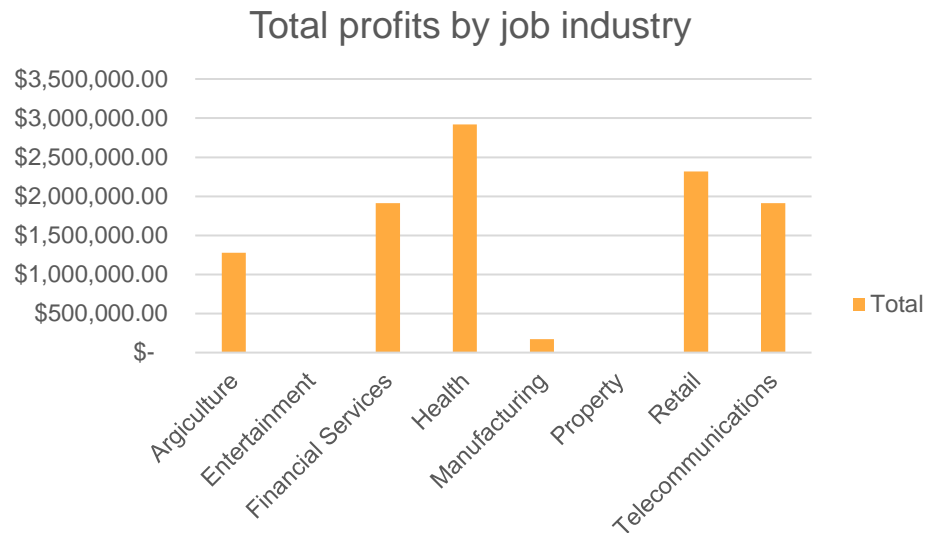
Model Development

Decision Trees

Based on model exploration decision trees can be formed keeping following points in mind

- Silver and Platinum customers targeted
- Men targeted as they did more purchases
- Ages 20 – 50 targeted
- Mass customer segment targeted with some focus also on High Net worth
- Health care, Retail and Financial Services segments targeted

Interpretation – Sample Results

first_name	last_name	gender	past_3_years_bike_related_purchases	DOB	job_title	job_industry_category	wealth_segment	deceased_indicator	owns_car	tenure	address	postcode	state	country	property_valuation	Rank	Value	Age
Parnell	Lamprey	Male	23	4/8/1977	Engineer III	Financial Services	High Net Worth	N	No	12	7353 Mallard Junction	2165	NSW	Australia	6	322	1.0125	44
Ethelred	Sissel	Male	83	12/25/1974	Programmer Analyst IV	Health	High Net Worth	N	No	18	65 Rutledge Parkway	2539	NSW	Australia	8	587	0.78625	47
Andrew	Froment	Male	58	7/19/1977	Office Assistant IV	Retail	High Net Worth	N	No	7	78 Bluestem Road	3860	VIC	Australia	2	684	0.7	44
Tomaso	Horsley	Male	97	4/16/2001	Junior Executive	Financial Services	Mass Customer	N	Yes	10	70360 Onsgard Plaza	3977	VIC	Australia	6	741	0.65875	20
Randall	Mason	Male	95	7/28/1974	Product Engineer	Health	Mass Customer	N	Yes	12	83497 Memorial Plaza	2570	NSW	Australia	11	870	0.544	47
Martino	Scoles	Male	18	1/19/1975	Senior Financial Analyst	Financial Services	Mass Customer	N	No	14	47 Scofield Junction	3620	VIC	Australia	4	930	0.478125	47
Harland	Messenger	Male	90	5/28/1974	Software Test Engineer I	Retail	Mass Customer	N	No	8	27 Crownhardt Center	3934	VIC	Australia	10	944	0.46	47
Burk	Wortley	Male	22	10/17/2001	Senior Sales Associate	Health	Mass Customer	N	No	6	04 Union Crossing	2196	NSW	Australia	10	997	0.357	20

Thank You