

TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

[Eva Beyebach]

Agenda

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

Introduction

Identification and Recommendation of High Value Customers

Outline Of Problem

- Sprocket Central Pty Ltd is a company that specializes in high-quality bikes and accessible cycling accessories
- Their marketing team is looking to boost business sales
- The analytics team will recommend which of the 1000 new customers should be targeted

Approach for Data Analytics

- New and Old Customer Age Distribution
- Wealth Segmentation by Age Category
- Bike related purchases for the past three years based on gender
- Job Industry distributions
- Number of Cars owned by State

Data Exploration

Data Quality Assessment

Key Issues for Data Quality Assessment

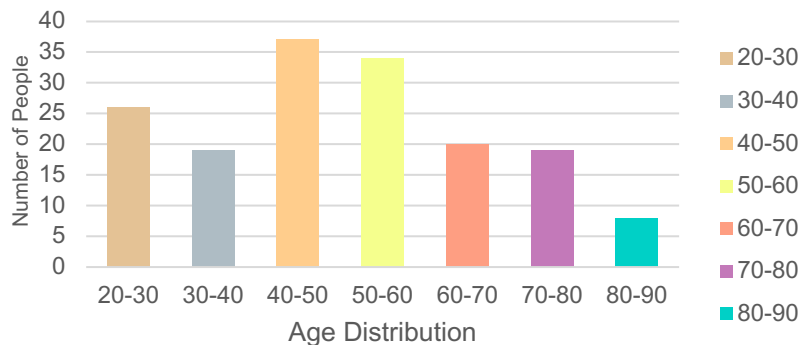
	Accuracy	Completeness	Consistency	Currency	Relevancy	Validity	Uniqueness
Customer Demographic	DOB: inaccurate Age: missing	Customer ID: blanks Job title: blanks	Gender: no consistency	Deceased Customers: Filter out	Default: Delete		
Customer Addresses		Customer ID: blanks	States: no consistency				
Transactions	Profit: missing	Online Order: blanks Brand: blanks Transaction ID: blanks			Cancelled Status Order: delete	List price: format Product sold date: format to short date	Customer ID: duplicated values

Data Exploration

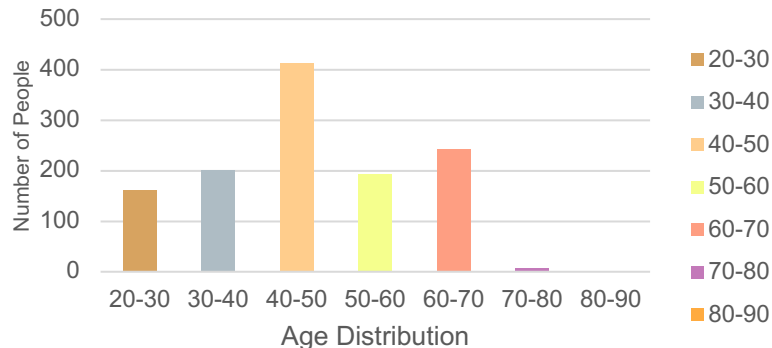
New and Old Customer Age Distribution

- In both 'New' and 'Old' most customers are aged between 40 and 50
- The lowest customers are aged 80-90 in both groups
- In 'New' Customers the range 20-30 is one of the highest, while in 'Old' Customers it is one of the lowest
- There is a drop of customers in the 30-40 group in 'New' Customers

New Customer Age Distribution



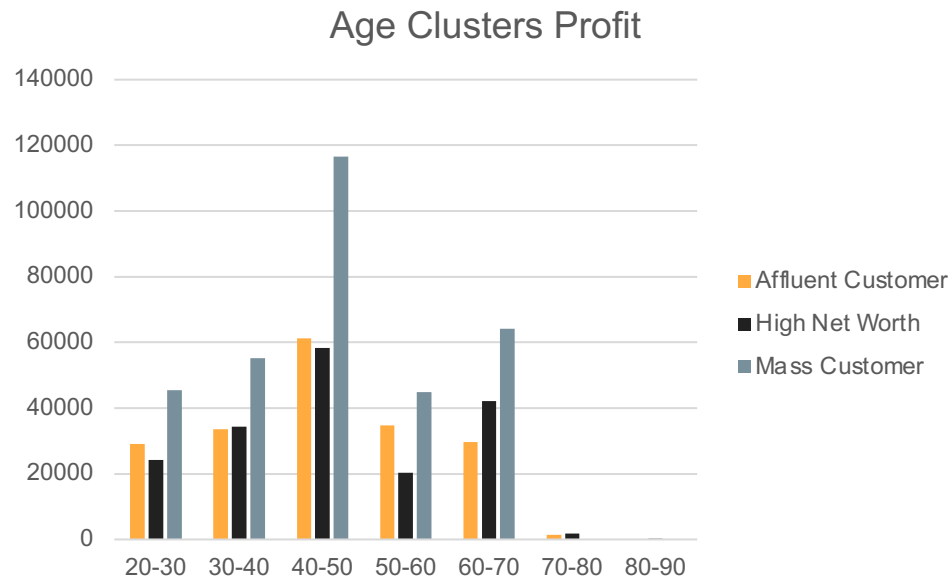
Old Customer Age Distribution



Data Exploration

Profit of Wealth Segment by Age Cluster

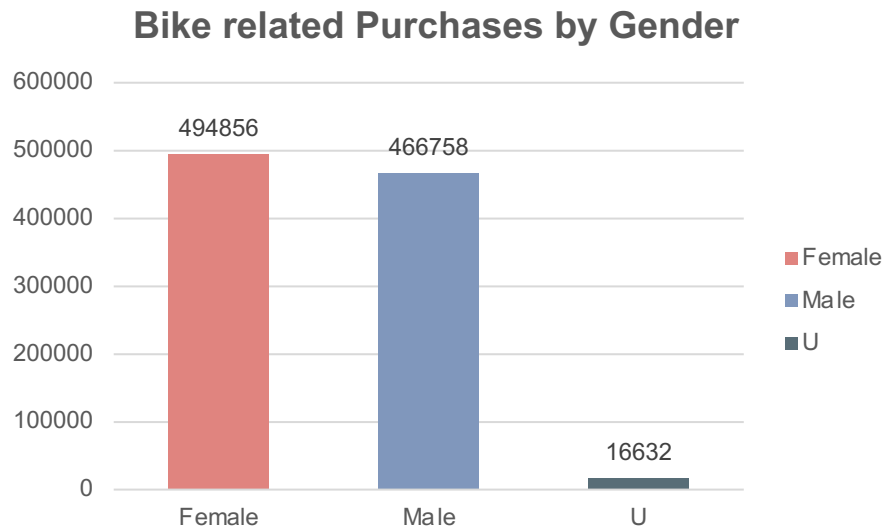
- The 'Mass Customer' makes overall the highest Profit
- The 'Mass Customer' age Cluster from 40-50 will bring more profit to the company



Data Exploration

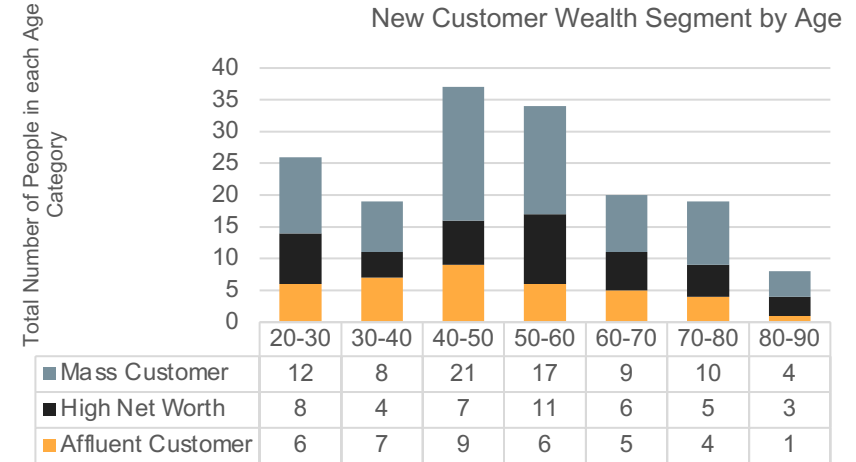
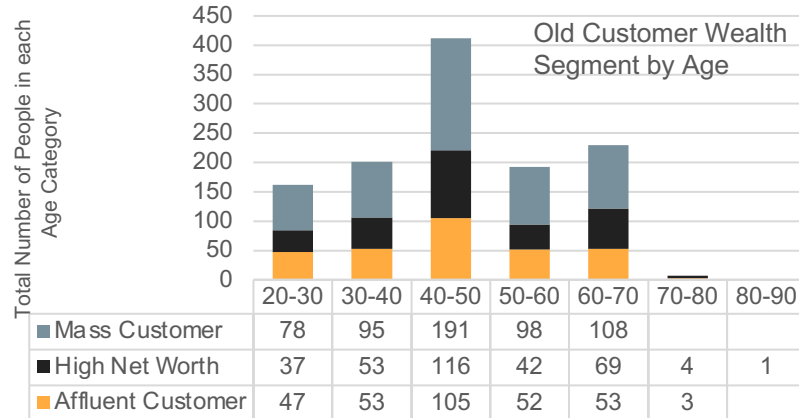
Bike related purchases for the past three years based on gender

- Over the last three years **50.6%** of purchases were made by females, while **47.7%** of purchases were made by males and **1.7%** were made by unknown gender
- Females** make up majority of Sales



Data Exploration

Wealth segment by Age Category

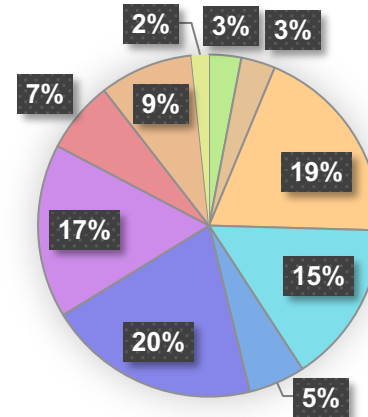
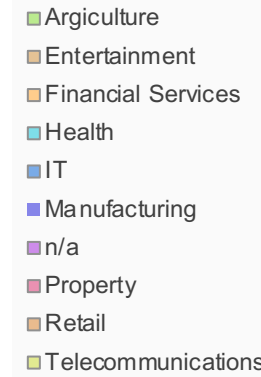


- In all categories the largest number of customers are classified as 'Mass Customer'
- Next category would be 'High Net Worth'
- In 20-30 and 50-60 for 'New Customer' the number of 'Affluent Customer' is bigger
- For 'Old Customers' also in ages 20-30 'Affluent Customer' is bigger than 'High Net Worth'

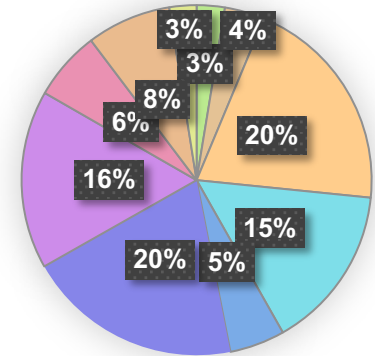
Data Exploration

Job Industry Distribution by Profit

- Biggest number of Customers are in Financial Services and Manufacturing (40% of Sales) in both 'Old' and 'New' Customers
- Smallest number of Customers are in Entertainment, Telecommunications and Agriculture



New Customer Purchases by Industry

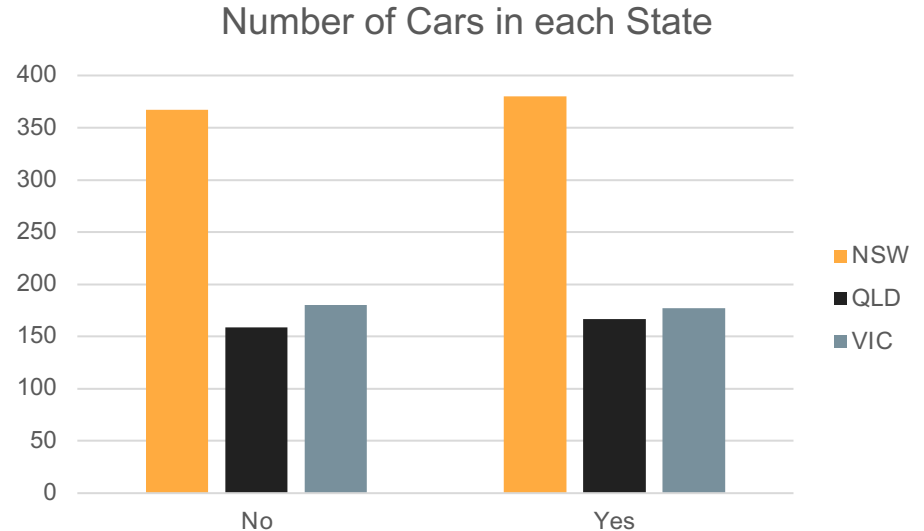


Old Customers Purchases by Industry

Data Exploration

Number of Cars Owned and Not Owned by State

- NSW has the largest amount of people that do not own a car, followed by QLD and the VIC
- NSW would probably have the highest amount of bike purchases



Customer Classification – Targeting High Value Customers

These are the high value customers that should be targeted for the New Customer list

- Aged between 40-50
- Mass Customers
- Working in Financial Services and Manufacturing
- Living in NSW

Interpretation

Summary of Table for High Value Customers

- After filtering the New Customer List, these customers would be classified as high value customers

first_name	last_name	gender	age	job_title	job_industry_c	wealth_segmen	deceased_indic	own
Harlin	Mazin	Male	49	Computer Systems	Manufacturing	Mass Customer	N	Yes
Ricki	Dobrowski	Male	48	Civil Engineer	Manufacturing	Mass Customer	N	Yes
Rutledge	Hallt	Male	47	Compensation Ana	Financial Services	Mass Customer	N	No
Daryl	Pauncefort	Female	44	Community Outre	Financial Services	Mass Customer	N	Yes
Martelle	Tuppeny	Female	42	Marketing Assistan	Manufacturing	Mass Customer	N	No

Thank You