TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

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Agenda

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

Introduction

Identify and Recommending High Value Customers

Outline of Problem

Sprocket central is a specialized company that focuses on providing top-notch bicycles and accessories.

The sales department is seeking ways to enhance revenue.

The objective is to attract 1000 new customers who will generate the greatest value for the businesses.

Approach for Data Analysis

Bike related purchases for the last 3 years based on Gender

Top industries contributing the maximum profit and bike related sales.

Wealth segment by age category.

Number of cars owned in each state.

Customer classification.
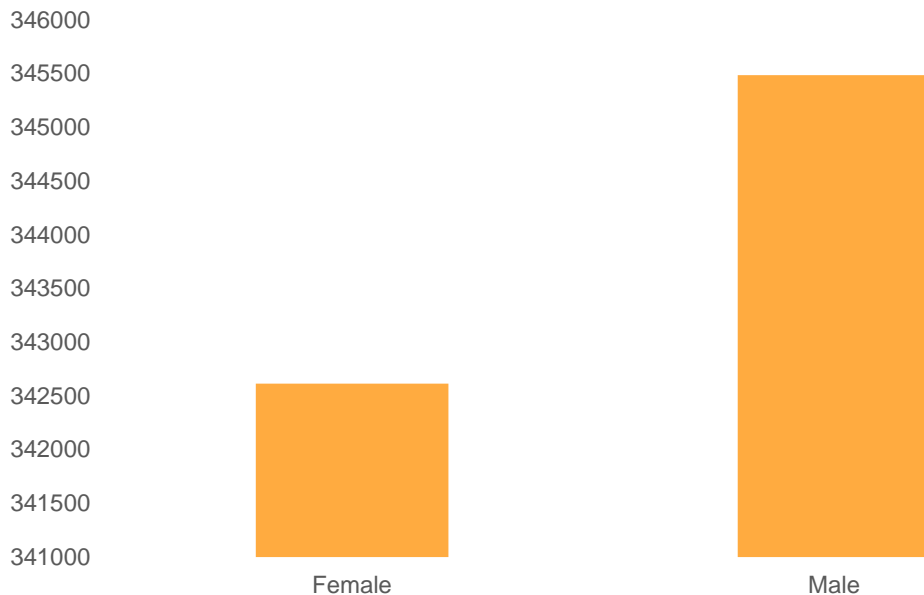
Data Exploration

Data Quality Assessment

Key issue dealt with for the data quality issue:

Sheets	Accuracy	Completeness	Consistency	Currency	Relevancy	Validity
Customer Demographic	DOB: Inaccurate Age: Missing	job_title : blanks, customer_id: incomplete	gender: inconsistent	deceased_customer: filtered out	default: delete	
Customer Address		customer_id: incomplete	states: inconsistent			
Transactions	Profit : missing	customer_id: incomplete, online_orders : blanks, brands: blanks			Cancelled status order: filtered out	LIst_price: format, product_sold_date : format

Data Exploration

Bike Related Purchases Over The Last 3 Years Based on Gender

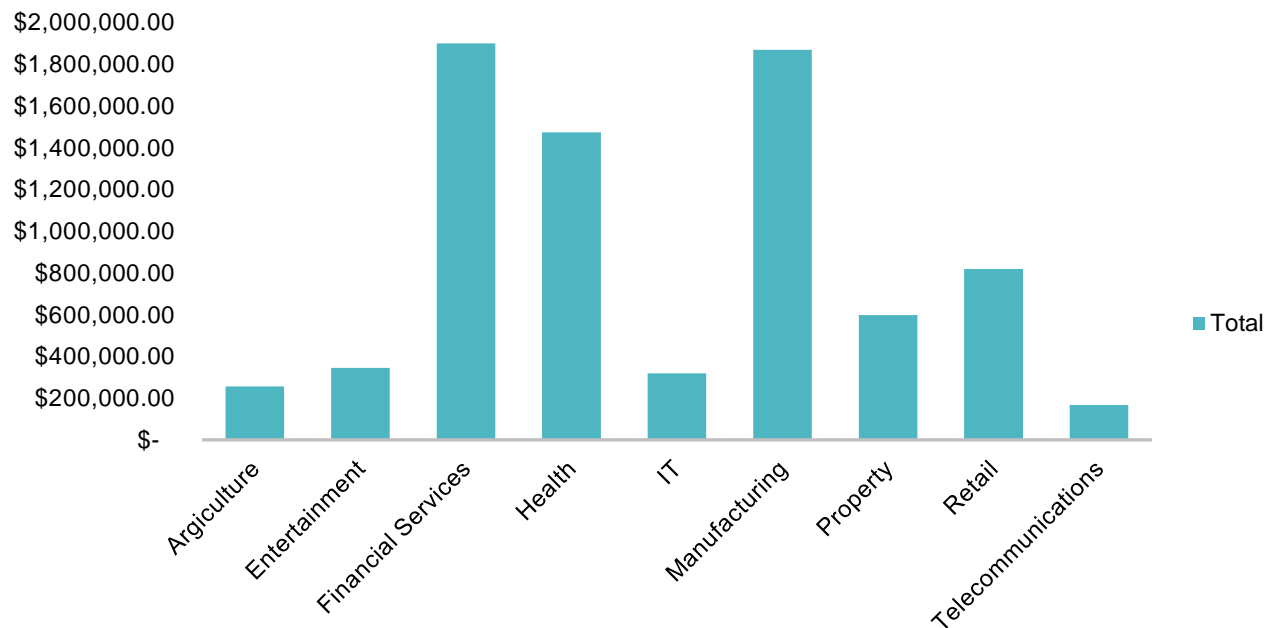Bike Related Purchases Over the Last 3 Years Based on Gender

The data shows that average males have more bikes related purchases in the last 3 years compared to the females.

Top Job Industry Contributing to the Maxing Profit & Bike Related Purchases

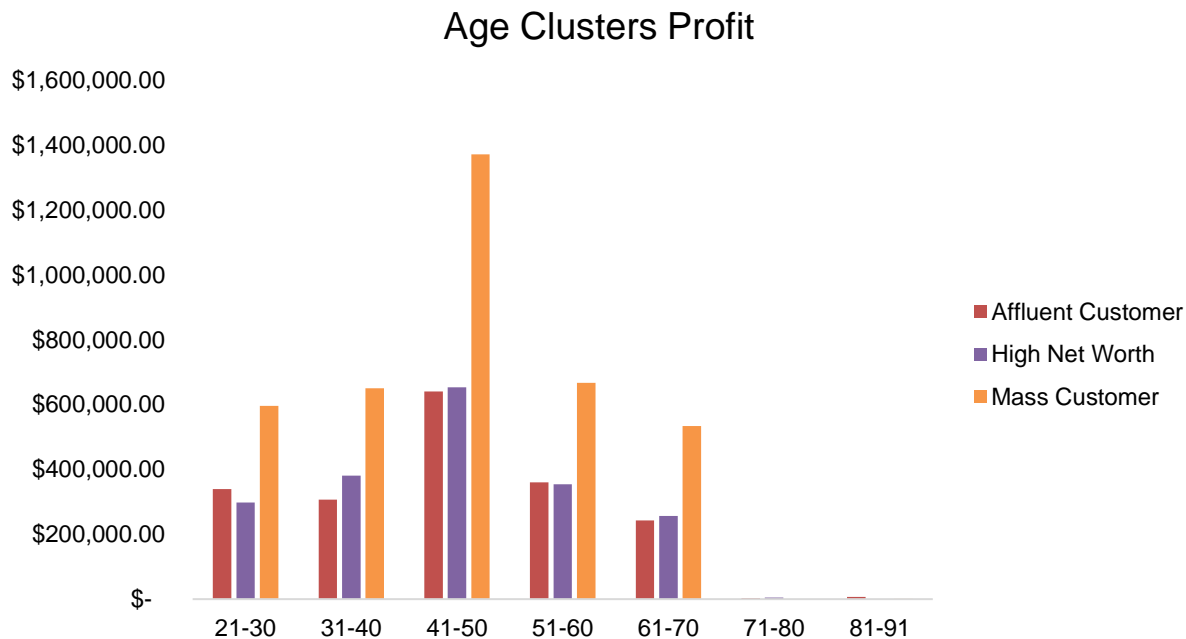Profit Based on Industry Sector

The top 3 industry sector bringing in the highest profit are: financial services, manufacturing, and health.

These can be obvious as most of these industry sectors are based within the city therefore consumers prefer bikes for commuting.

Data Exploration

Profit of Wealth Segment by Age Cluster

Age Clusters Profit

Overall, Mass Customer makes the highest profit across the different age clusters.

Mass Customer aged between 41-50 are likely to bring more profit for the company compared to other age clusters.

This also indicates a trend of buying power, as the buying power increases over time till 50, and then there's a decline in buying power, thus leading to lower profits.

Data Exploration

Number of Cars Owned in each state

Number of Cars in Each State

State	Number of Cars
NSW	7355
QLD	3080
VIC	3475
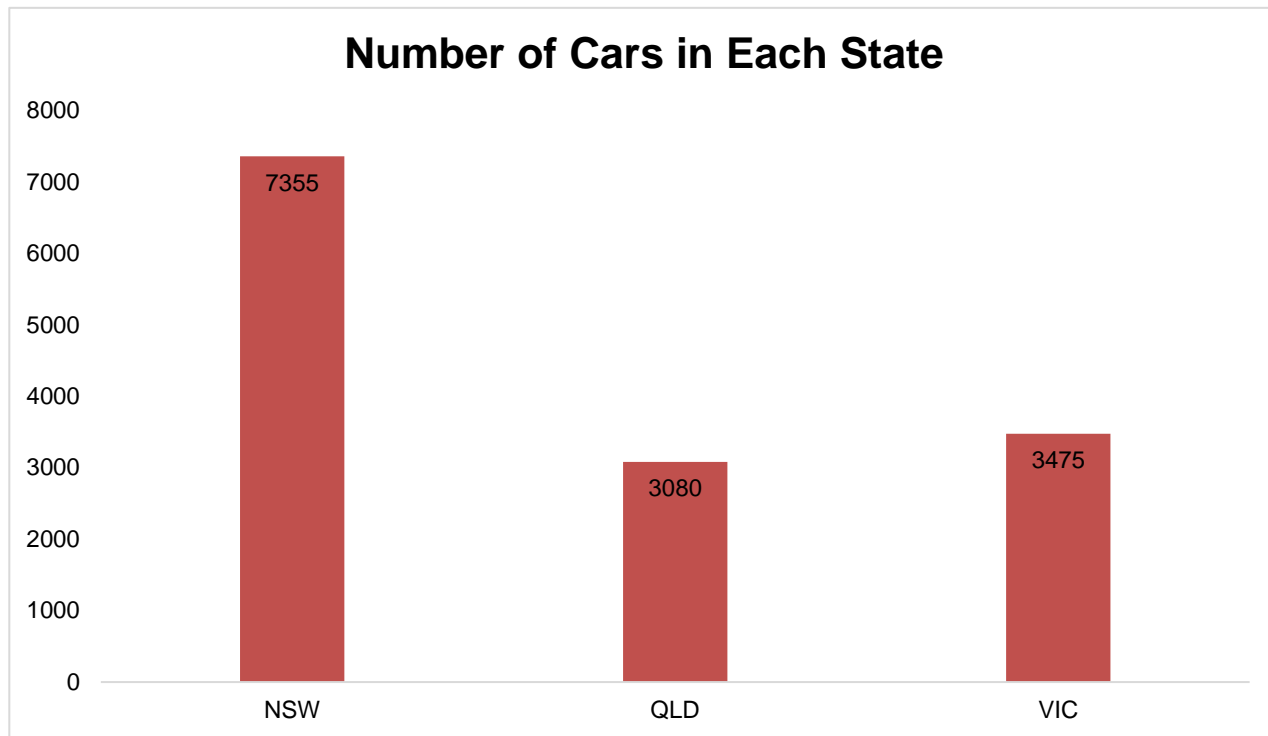
New South Wales has the highest potential as the number of people that own car is almost equal to the people who don't own cars which shows that there is opportunity to find value customers there.

Model Development

Customer Classification – Targeting High Value Customers

These are the high value customers that should be targeted from the new list:
- Most of the high value customers will be male compared to female.
- Working in the financial services, health and manufacturing industry sector.
- Aged between 41-50.
- Who are currently living in New South Wales.

Interpretation

Summary Table for High Value Customers

Here is a snapshot of a few customer that will come under the high value customer classification.

first_name	last_name	gend	past_3_years	DOB	Age	job_title	job_industry_catego	wealth_segment
Rutledge	Hallt	M	23	1976-10-06	46	Compensation Analyst	Financial Services	Mass Customer
Ricki	Dobrowski	M	13	1975-03-10	48	Civil Engineer	Manufacturing	Mass Customer
Robert	Corkill	M	55	1976-03-12	47	Clinical Specialist	Health	Mass Customer
Harlin	Mazin	M	34	1974-03-25	49	Computer Systems Analyst I	Manufacturing	Mass Customer
Dorian	Stollen	M	78	1980-02-16	43	Statistician I	Financial Services	Mass Customer
Kort	Disley	M	66	1979-02-05	44	Technical Writer	Health	Mass Customer
Gothart	Artus	M	52	1978-05-31	45	Health Coach IV	Health	Mass Customer
Inglebert	Aspinal	M	4	1973-10-13	49	Financial Analyst	Financial Services	Mass Customer
Aldin	Newsome	M	24	1981-07-06	42	Financial Analyst	Financial Services	Mass Customer
Brendis	Pineaux	M	12	1978-01-15	45	Mechanical Systems Engineer	Manufacturing	Mass Customer

Appendix

Appendix

Thank You ☺