TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

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Agenda

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

Introduction: Hypothesis

Help Sprocket maximize profits by revealing the key attributes of their current customers.

These attributes should help in uncovering the high-value new customers to target with marketing efforts.

Key Attributes…

- Location (state)
- Wealth segment
- Age
- Customer Profile
- Number of bike purchases in the past 3 years
- Car ownership
- Job Type
- Gender
- Property valuation

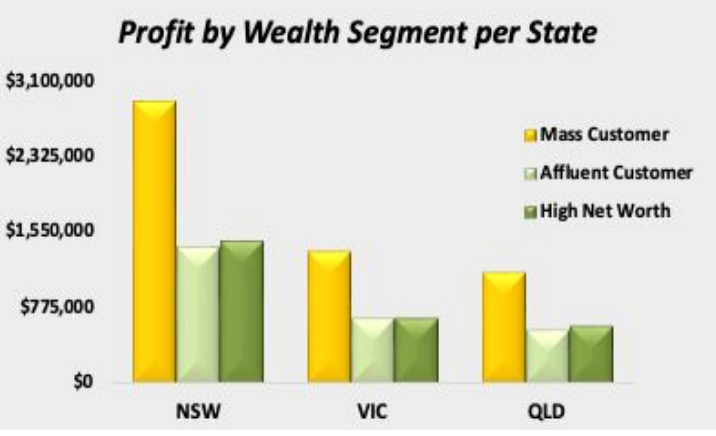
Attributes in this presentation are based on the current customer data.

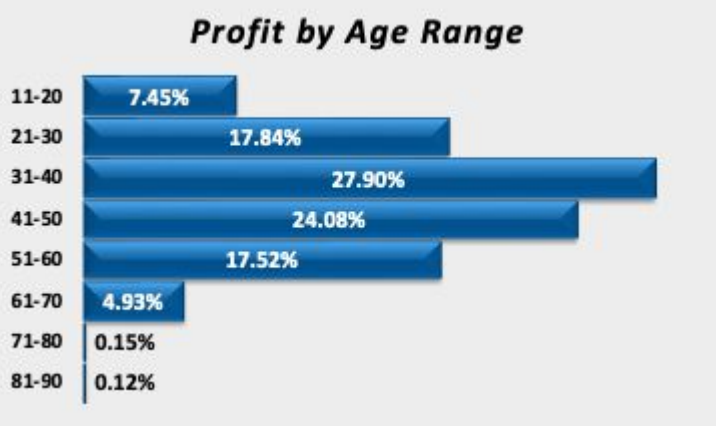
Data Exploration

The most profitable customers are 'middle-class', live primarily in New South Wales and work in manufacturing, finance, health & retail.

% of Profits come from...

- **53%** comes from those living in New South Wales.
  - Customers **live** in New South Wales, Victoria & Queensland
- **50%** comes from "**Mass Customers**"
  - Their **property valuations** are primarily between **7-10**.
- **87%** comes from **21-60 years old**
  - **52%** of which come from those between **31-50.**
- **67%** comes from those working in:
  - Manufacturing
  - Financial Services
  - Health





Model Development

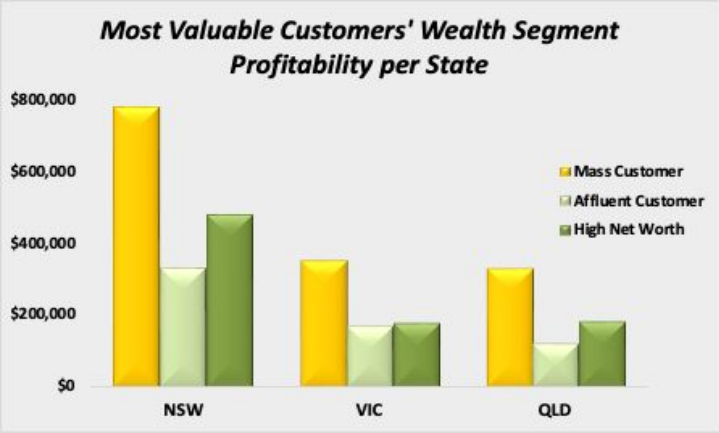
Identified Sprocket's most valuable customers based on purchase recency, frequency of purchases and overall profit from each customer.

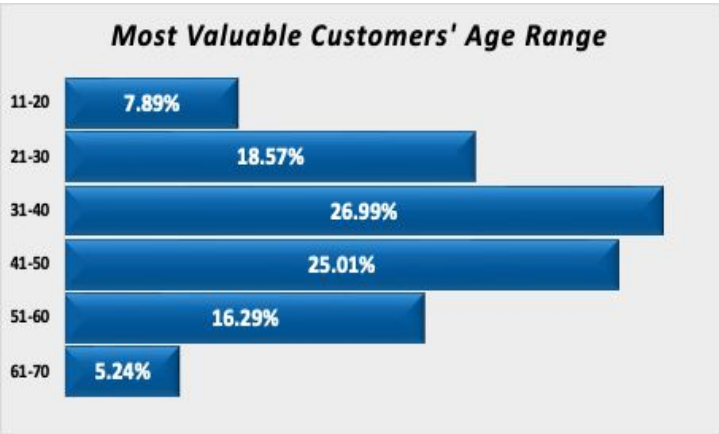
Quick Insights…

- The characteristics of the 'most valuable customers' based on state, wealth segment & age are within **+/- 1%** of the profit figures on the previous slide.
    - The % of profit from a customer's job category rose to 71%.

Additional Key Activities to be Completed…

- Statistical tests to determine significance
- Evaluate model performance
- Apply RFM model to the New Customer List





Interpretation

Clear and useful business intelligence will be finalized and provided in a dashboard.

The Dashboard will Highlight…

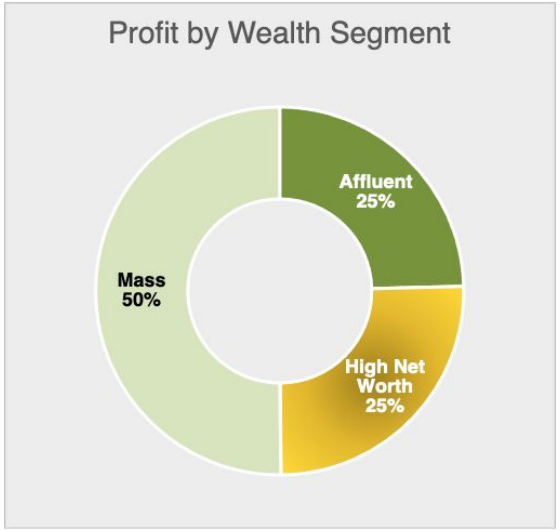
- Current Most Valuable Customer Overview
- New Customer Overview
- Target Customers

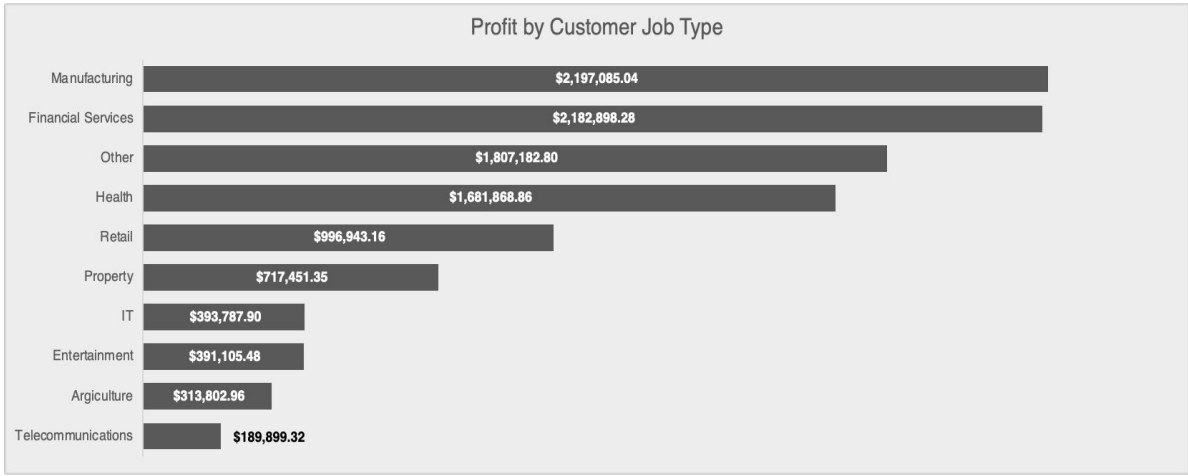
… to help Sprocket make strategic business decisions.

Appendix

Appendix I - Data Exploration

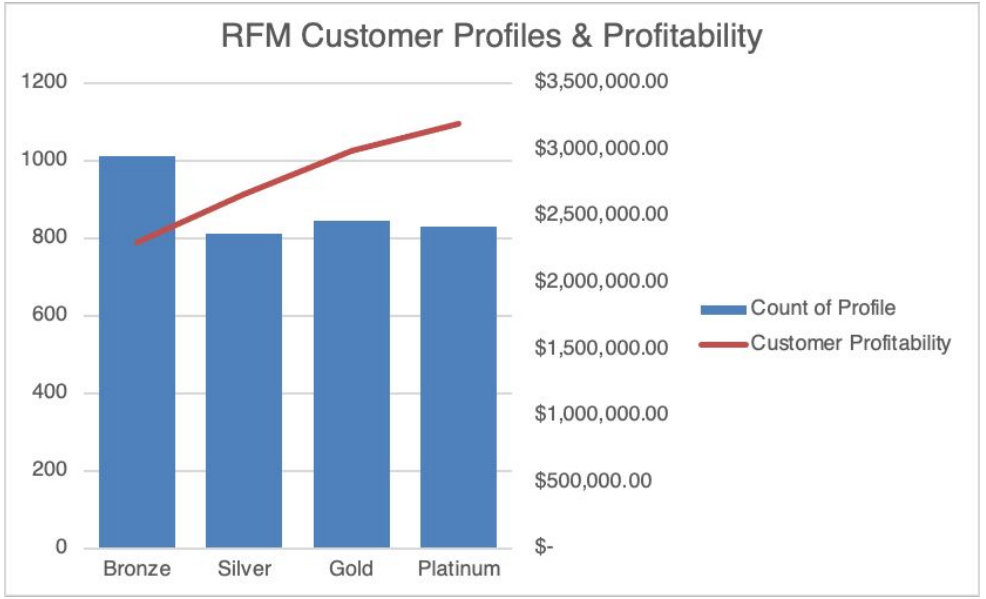
Gender & Car Ownership is ~50/50 split and is currently regarded as not significant to factor into modeling





Appendix II - Data Model

RFM Customer Profile distribution with a trend line showing the profit for each profile.



Appendix III: Future Work

Other things we would like to analyze…

- Create a more comprehensive profile of current & prospective customers.
  - Research/merge population-based data (from the Australian Bureau of Statistics). Things to understand about the people and areas of value:
    - Age, Gender, Property Value, Count in each location
  - Get more granular through using “postcode” rather than state
- Perform analysis from the perspective of revealing products to sell.
  - What sells?
    - Cross-sell/up-sell strategies & opportunities
    - Develop product recommendations
  - Products with the best margins
    - Relate it to customer purchasing behavior
- Identify what a data science team could help with. Ideas:
  - Statistical significance of attributes
  - Enhanced modeling (using python for statistical approaches)
    - Regression
    - Clustering / KNN
    - Classification (likelihood of customer-lifetime value)