TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

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Agenda

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

Targeting high value customers based on customer demographics and attributes.

The attributes mainly focused:
- ✓ Number of bike purchases in 3 years / percentages purchases
- ✓ Gender (Male/Female/Unspecified)
- ✓ Job industry category
- ✓ Wealth segments (Mass/High Net Worth/Affluent)
- ✓ Cars (Owned/Not owned)
- ✓ State (NSW/VIC/QLD)
- ✓ Brand of purchase

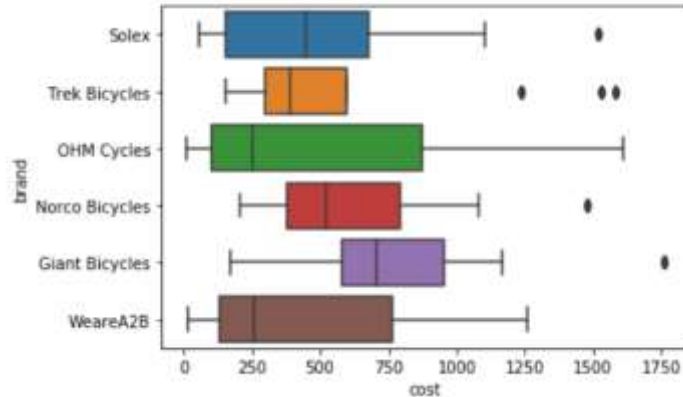## Understanding the characteristics of different attributes in the datasets
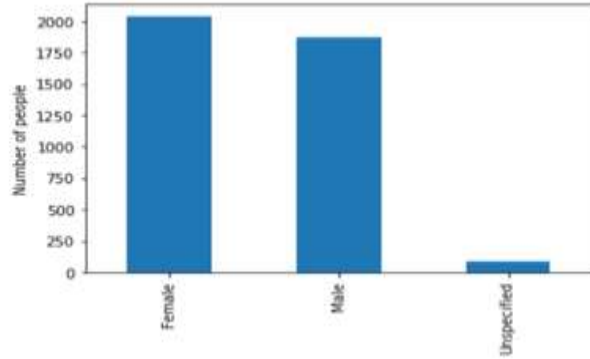
✓ Bar plot of Gender vs Customer count is shown. Females have made 50.6% of the total purchases while males contributed to 47.7%.
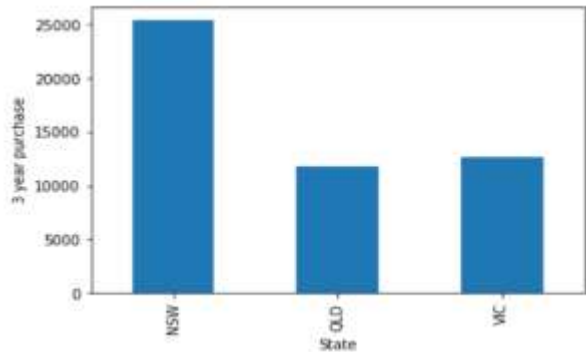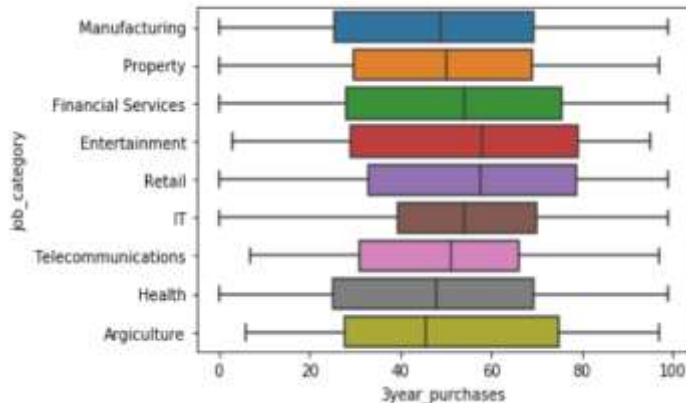

✓ Bar plot of State vs 3 year purchases is shown. New South Wales customers have made the most purchases in the last three years.

Data Exploration

✓ Box plot of costs vs brand is shown. OHM Cycles have a great range of prices. Giant Bicycles are comparatively more expensive than the others.

✓ Box plot of 3 year purchases vs job category is shown. Customers in Entertainment and Retail sector have a higher median purchase. Count wise, Finance and Manufacturing sector have the most customers.

Determining a hypothesis to the problem

- ✓ Home to office distance is an important factor to determine if a customer purchases a bike/bicycle for transportation. A linear relationship seems to be appropriate here.
- ✓ Classification algorithm based on the geographic remoteness of a place can be carried out.
- ✓ Other key aspects to take into consideration include Cars owned, Age, Customer Job, Wealth, etc. Machine Learning algorithms can determine how likely customers are willing to purchase the product based on these attributes.

Interpretation

Interpreting the findings of different customers

✓ Gender is not an important factor to consider while marketing. (females have made just slightly more purchases in the past)

✓ Finance and Manufacturing sector have the most customers when compared to other job categories.

✓ Customers classified in the "Mass" wealth segment make more purchases.

✓ Focus on customers who have no cars as they are more likely to use bikes or bicycles for travelling. However, customers with cars also have almost made a significant proportion of the purchases in the past three years.

✓ New South Wales is the largest market for bikes and bicycles.