

TheAnalyticsTeam

# Sprocket Central Pty Ltd

Data analytics approach

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# Agenda

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

# Introduction

## *Customers analyze:*

Look into these factors in customers:

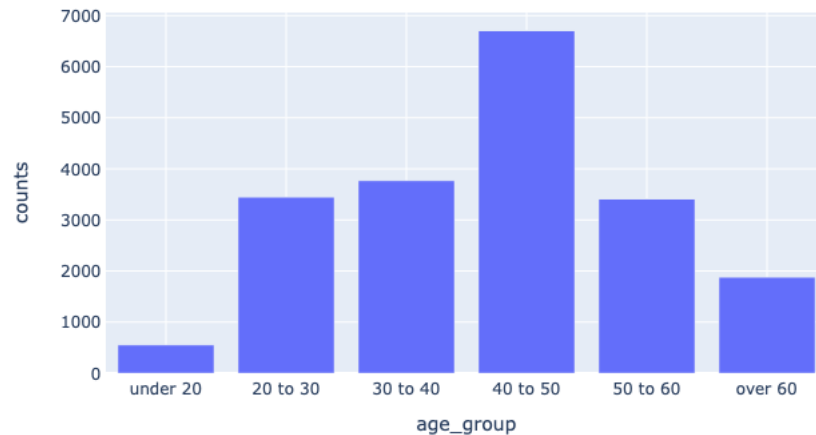
- ❖ Age distributions
- ❖ Geographical & Wealth distribution
- ❖ Job industry category.
- ❖ Related purchases

# Data Exploration

## *Customers' age distribution*

- ❖ Most of transactions were made by customers in age group 40 – 50
- ❖ The customers' age is basically normal distributed
- ❖ The percentages of age group 20 – 30 and 30– 40 are close

Transactions customer age distribution

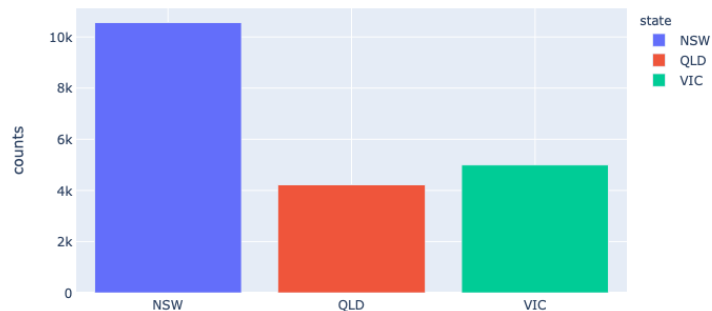


# Data Exploration

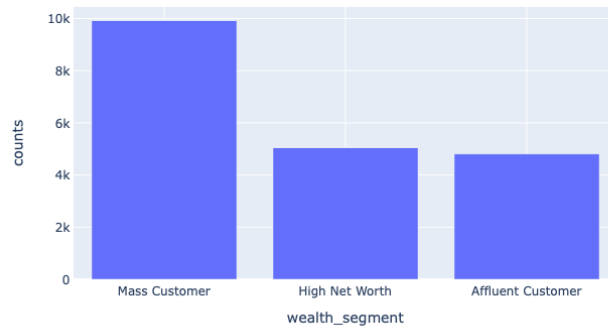
## Geographical & Wealth distribution

- ❖ Most of transactions were made by customers in New South Wales
- ❖ Most of transactions were made by customers in group Mass Customer

Transactions state distribution



Transactions wealth\_segment distribution

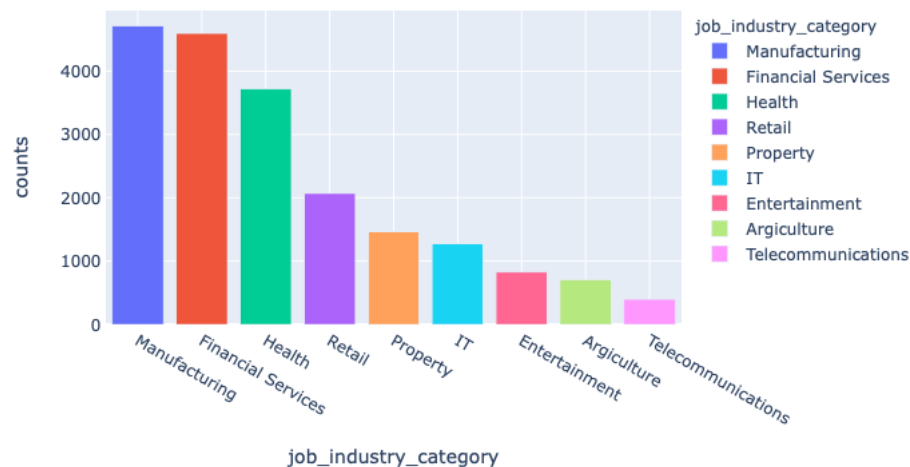


# Data Exploration

## Customers' job industry distribution

- ❖ Most of transactions were made by customers in Manufacturing, Financial Services and Health
- ❖ The differences among rest of industries is insignificant

Transactions job\_industry\_category distribution

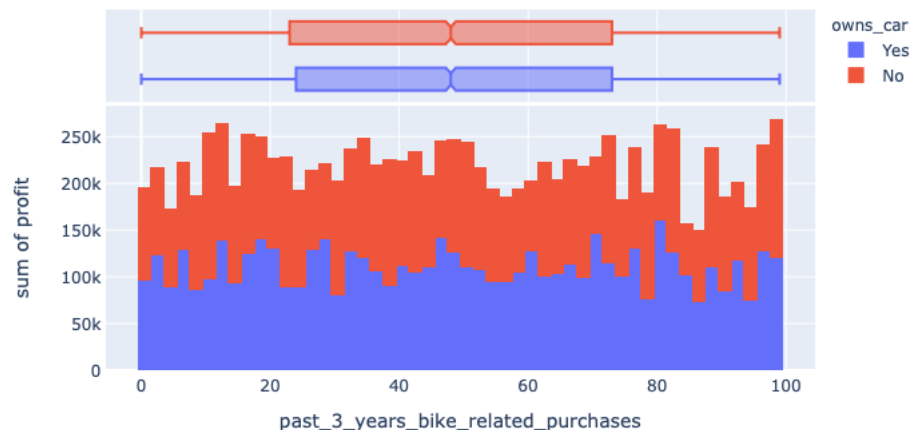


# Data Exploration

## Customers' bike related purchases

- ❖ There is a significant relation between profit and whether the customer owns cars
- ❖ Cannot see a clear correlation between the profit and bike related purchases

Past\_3\_years\_bike\_related\_purchases distribution



# Model Development

## Developed Data mining model

### Top factors in term of feature importance

- ❖ past\_3\_years\_bike\_related\_purchases
- ❖ age
- ❖ property\_valuation
- ❖ gender
- ❖ NSW
- ❖ Mass Customer



# Interpretation

## **Suggestions for marketing strategy towards new customers**

- ❖ Focus on customers who have large amount bike related porches
- ❖ Target Male customer whose age between 40 -50 with a high property valuation
- ❖ Focus on mass customer and the New South Wales area

# Appendix