TheAnalyticsTeam

# Sprocket Central Pty Ltd

Data analytics approach

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## Agenda

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

#### Introduction

This presentation include the step by step plan of analysis we will be following, starting from the Data interpretation to Model building and finally ending by Interpreting the results both statistically and visually.

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#### **Data Exploration**

- 1. Filter out the useful attributes and drop those who are meaning less for our analysis.
- 2. Check for the null values and only drop those rows whose null values will really affect our analysis.
- 3. Check and remove the outliers as outliers skews our distribution.
- 4. Bring the columns to their proper format, like dates to proper datetime format.
- 5. Fix the inconsistent data like gender attribute takes female value like Female, F, Femal.
- 6. Remove the data that is not useful like remove that transactions that are cancelled and remove the customer that are deceased etc.

#### **Model Development**

- 1. Make Null and Alternative hypothesis of the business question given to us.
- Make more meaning full columns from the existing data, like finding the profit by getting the difference/variance of List price and Standard cost and finding the Ages of the customers form the DOB column.
- 3. Join all the there datasets together to get most out of the data.
- 4. Aggregate the data accordingly.
- 5. Side by side make the graphs of every interpretation you make.
- Get the results of all our tests and then see weather the results are significant or not statistically by the help of tests like Students t-test, F-test and metrics like r square or Adjusted r square.
- 7. Check the significance of the results visually by the help of graphs and other diagrams.

### Interpretation

- 1. Collect all the results and group them in the dashboard.
- 2. Find out the limitations.
- Recommendations for better results in future.
- 4. Make the final report.