

TheAnalyticsTeam

Sprocket Central Pty Ltd

Data analytics approach

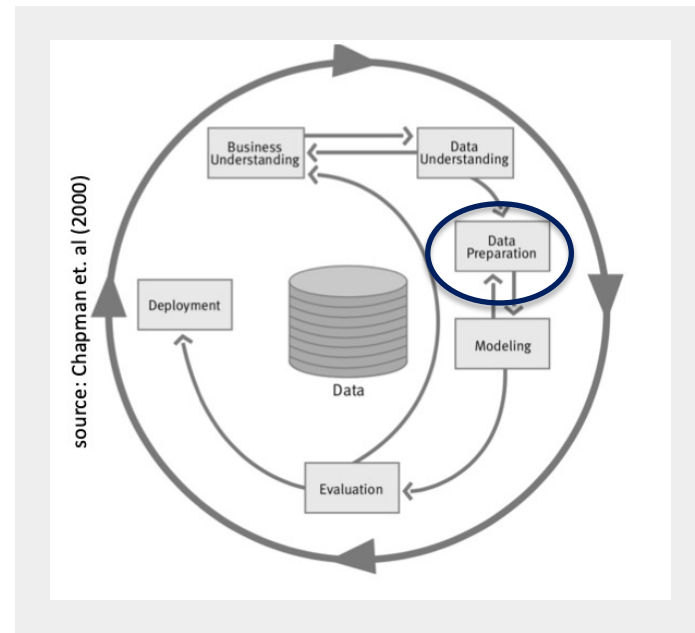
[Division Name] - [Engagement Manager], [Senior Consultant], [Junior Consultant]

Agenda

1. Introduction
2. Data Preparation
3. Model Development and Evaluation
4. Interpretation

Data Preparation

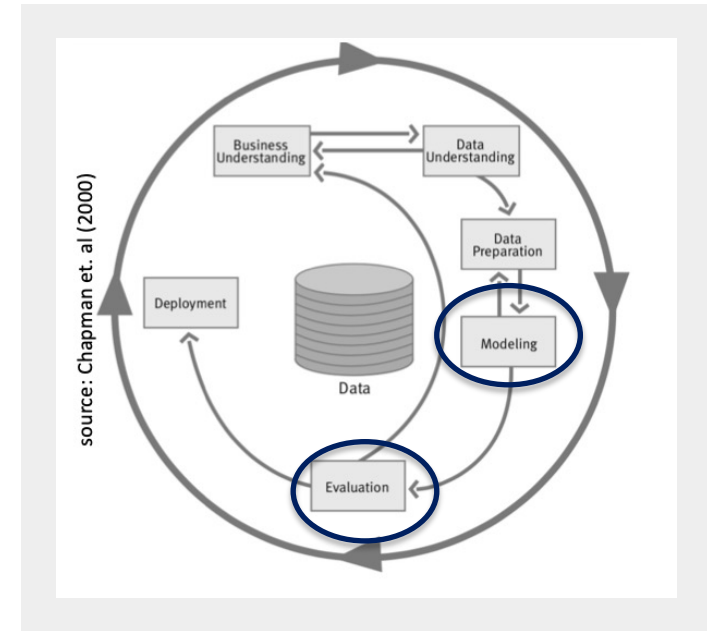
1. **Select data**
2. **Clean data:** treat missing values, remove outliers
3. **Construct data:** feature engineering, for instance the D.O.B should be converted to age groups
4. **Integrate/merge data:** ABS / Census to add additional variables that may help support the model.
5. **Format data**



Model Development

Which customers should be targeted to drive the most value?

1. **Select modeling techniques:** determine a hypothesis questioning the problem statement
2. **Algorithm selection** : RFM could be used to analyze and segment the customer base based on their recent purchase behavior, how frequently they make purchases, and how much money they have spend
3. **Modeling assumptions**
4. **Generate test design**
5. **Build model**
6. **Assess model:** evaluate the selected model based on residual deviance, AIC, ROC curves, R Squared and/or confusion matrix



Interpretation

Who are exactly the top 1000 Customers?

1. The RFM model calculates a numerical score between 1 to 5 for each customer based on their recency, frequency, and monetary values.
2. Based on their RFM scores, customers are **segmented into distinct groups**.
3. The **segments are labeled** in a way that reflects the behavior of the customers in that group, for instance "Champions" for the highest-scoring customers or "Lapsed" for those with low scores.
4. Each segment could be **represented visually** in a dashboard with other characteristics from the 2 other data sets available.
5. Find the **group that should be targeted** to drive most value and provide actionable insights for marketing and customer engagement strategies.

