Part D - Report Template (max 10 pages)

Executive Summary

{High-level summary of the report, focusing on the business context and problem, key hypotheses, results and recommendations. Write this for an executive audience in plain language, and placing emphasis on the main findings and recommendations. }

Introduction and Approach

{Overview of business context and business strategy. This should contextualise the business problem, and focus all subsequent analyses}

Assumptions

{State any assumptions explicitly. Assumptions should be reasonable and justifiable}

Data Analysis

Descriptive analysis

{the descriptive analysis describes key patterns/trends/observations within the dataset. Describe only those aspects that pertain to the overall business problem. The emphasis in this section on the visualisation and/description, not prediction. Include potentially useful external data/trends that are pertinent to the business background and problem.

You can select either of the two analysis approaches below depending on your interest.

Option 1: Diagnostic Analysis (Recommended for students with a stronger focus on business skills)

Building on the descriptive analysis, this section should focus on diagnosing patterns, trends, or anomalies in the data to uncover the underlying causes of the specific business problem. This diagnostic stage helps identify root causes and paves the way for discussing the interpretation of the findings, their implications, and the recommended next steps for the business.

- Frame 4 to 5 key diagnostic questions that address different aspects of your area of focus.
- For each question, explain why it matters for the business and how it relates to the overall business problem.
- Use descriptive and comparative insights (e.g., trends, patterns, visualisations) to explore potential causes.

Option 2: Predictive analysis (Recommended for students with a stronger focus on advanced analytics skills)

{informed by the descriptive analysis, develop a predictive data model comprising of a set of working hypotheses (typically 4 to 5, depending on group size). These hypotheses focus of the predictive analysis. As such, each hypothesis should explore a particular aspect of the overall business problem. Develop hypotheses in such a way that they could inform recommendations. Hypotheses should therefore stretch current understanding, i.e. if they turn out to be correct after being tested against the data, then fresh/new insights should emerge for the business.

Suggestion: set the scene for each hypothesis, why this matters for the business, how it relates to the overall problem. Then state the hypothesis. Discuss the testing of each of the hypotheses. Describe the specific datasets and methods used, and justify why these methods are appropriate. Include the detailed workings in the appendices. Repeat this structure for all hypotheses}

Interpretation

Interpret the results of both the descriptive and predictive analysis. What do these findings mean for the business problem? What are the important observations/patterns? Were there any surprises? How could these be understood, given the methods followed in the analysis and testing?}

Recommendations

{list of recommendations following from the data analysis (i.e. descriptive and diagnostic/predictive analysis and testing). Recommendations should emerge from the data analysis and address the overall business problem. Recommendations should be actionable by the business}

Appendices

{include a set of appendices, clearly outlining all the workings of the analysis. It should be clear to an external reader how the analysis were conducted, and the findings arrived at}

References

{cite all references, e.g. methodology references, sources related to the business background, external data sources appropriately. Use the Harvard or APA referencing style. Refer to the Deakin citation standards in this regard}