**Assignment 3 – Modification Summary & Analytical Rationale**

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1. Overview of Modifications

Closeness centrality is an additional centrality metric that was added to the original analysis framework. This was included to assess a director's ability to interact with others in the network, providing an alternative viewpoint to the eigenvector and degree centrality metrics already in use.  
  
Additionally, null and empty values were eliminated from the role data by cleaning and processing it from the director-details.csv file. To improve interpretability, a bar chart was subsequently used to display the frequency distribution of the top ten director roles.

1. Analytical Exploration

The dataset was found to contain an underutilised yet significant column (postcode). This area was investigated in order to examine the directors' geographic dispersion. Regional access differences or industry clustering may be the cause of location-based directorship patterns found in a bar chart of the top ten postcodes.

1. Complementary Dataset Rationale

ASIC Financial Reports, a fictitious supplemental dataset that contains statistics on firm income and profit, was suggested. ASIC and commercial sources like IBISWorld make this dataset openly available. By including such financial data, it is possible to assess each director's affiliation with profitable or unsuccessful businesses.

1. Implementation Using Financial Data

The directorship data was combined with a generated financial dataset. The computation of average revenue and profit per director was made possible by the combined data. The financial performance of their companies was then used to rate the directors. This analysis shows how network structure and economic measures can be used to find high-performing or important people.

1. Ethical Considerations

A number of moral ramifications were recognised:  
  
-When public data is combined to determine performance or impact, privacy problems occur.  
  
-Data biases (such as gender or location) may be exacerbated without intentional correction.  
  
-Misuse of centrality indicators as stand-ins for quality may result in interpretation mistakes.  
  
-If such models are applied in decision-making situations, transparency is crucial.  
  
-This analysis is best suited for advancing diversity, supervision, and improved governance, not just for evaluations motivated by profit.