Unit 3: Research Proposal Review

For this research report I will adopt a mixed methods research design. The purpose of using mixed methods is to integrate quantitative analysis of existing wage data with qualitative interpretation of organisational and policy perspectives. This combination will provide both a measurable understanding of pay disparities and an in-depth exploration of the social and structural factors influencing them.

The design will follow a sequential explanatory model, beginning with quantitative data analysis to identify patterns, followed by qualitative document analysis to contextualise and interpret those findings. This approach aligns with Creswell's (2014) framework for integrating numerical trends with narrative insights, allowing for a richer, more comprehensive understanding of complex issues such as gender pay inequality.

Quantitative Component: Data and Methods:

The quantitative phase will focus on secondary data analysis using publicly available datasets, such as:

- The Singapore Ministry of Manpower's gender and wage statistics
- Labour Force Surveys and industry-specific wage reports
- International databases (e.g., World Economic Forum, OECD, World Bank) for comparative reference

Key variables will include gender, occupation, education level, job category, and median income within the IT sector. Descriptive statistics and simple inferential comparisons (e.g., gender pay ratio, mean differences across roles) will be used to quantify the extent of the gender pay gap. This analysis will identify whether the IT sector reflects, exceeds, or narrows the national average pay gap.

Qualitative Component: Data and Methods

Following the quantitative phase, the qualitative component will employ document analysis to interpret the findings and explore possible explanations for observed disparities. Relevant materials will include:

- Policy documents and reports from Singapore's Tripartite Alliance for Fair & Progressive Employment Practices (TAFEP) and Ministry of Manpower
- Corporate diversity reports and statements from leading technology companies
- Consultancy and media publications addressing gender equity in STEM.

The documents will be analysed using thematic analysis (Braun & Clarke, 2006) to identify recurring narratives about gender equality, diversity, and wage fairness. Themes will then be compared against the quantitative findings to explain potential underlying causes, such as occupational segregation, bias in promotion, or career interruptions.

Integration of Quantitative and Qualitative Findings:

Results from both phases will be integrated during the interpretation stage. The quantitative data will reveal the “what” (extent and nature of the pay gap), while the qualitative analysis will explain the “why” (organisational and socio-cultural factors contributing to it). This triangulation enhances validity and ensures a balanced perspective that is both data-driven and contextually grounded.

Skills Required and Development Needs:

- Data analysis and interpretation, including descriptive statistics and basic inferential analysis using Excel
- Thematic analysis and critical evaluation of qualitative data
- Synthesis and integration of mixed data types into a cohesive argument
- Academic writing and referencing to report findings accurately
- Ethical research awareness, ensuring responsible use of publicly available data

References:

Braun, V. and Clarke, V. (2006) ‘Using thematic analysis in psychology’, *Qualitative Research in Psychology*, 3(2), pp. 77–101.

Creswell, J.W. and Plano Clark, V.L. (2018) *Designing and Conducting Mixed Methods Research*. 3rd edn. Thousand Oaks, CA: Sage Publications.