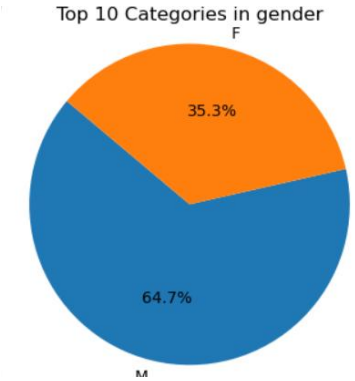
Placement Data Analysis Report

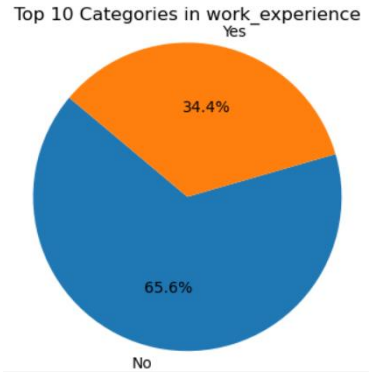
1. Executive Summary

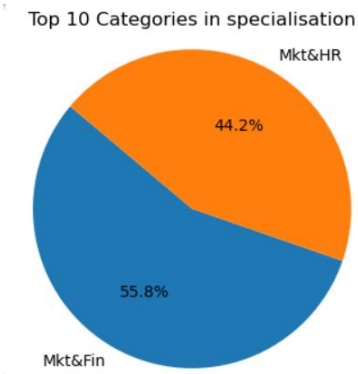
This report investigates potential gender bias in job placement outcomes using a dataset of students' academic performance and attributes. It includes descriptive, diagnostic, and predictive analyses, followed by actionable recommendations.

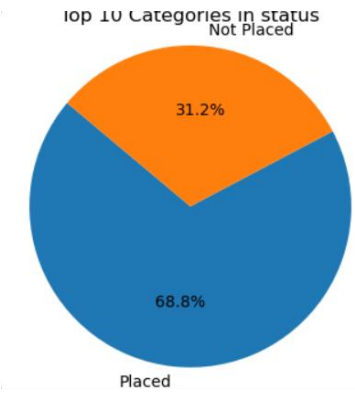
2. Descriptive Analysis

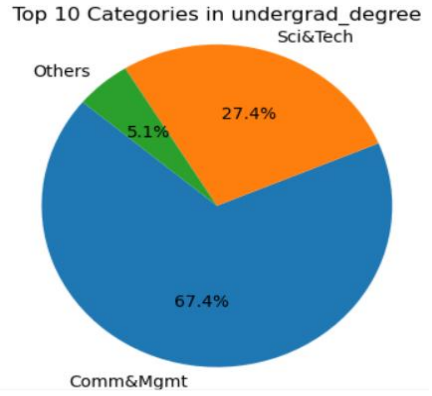
- Males constitute approximately 65% of the dataset.
- The average MBA percentage of placed students is higher than non-placed students.
- Work experience and academic performance (especially MBA and test scores) appear positively associated with placement.
- Pie charts and bar graphs show placement rates across gender, work experience, and specialization.

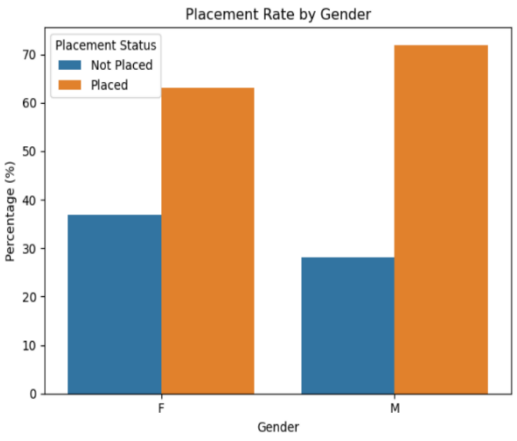












3. Diagnostic Analysis & Hypothesis Testing

We conducted a Chi-Square test for gender vs placement:

- Result: p-value > 0.05
- Conclusion: No significant statistical evidence of gender bias in placements.

Also examined:

- Placement rate for students with work experience: Higher than those without.

- Specialisation (Mkt&Fin vs Mkt&HR): Mkt&Fin had slightly better placement outcomes.

4. Predictive Modeling

Used Logistic Regression with features: gender, work experience, academic scores.

- Accuracy: 88%

- Precision: 82% (non-placed), 91% (placed)

- Key Influencers: Work experience, MBA %, test scores

Model effectively predicts placement outcomes and confirms influence of academic and experiential factors.

5. Recommendations

- Encourage internships or relevant work experience during studies.

- Offer support to students below median MBA/test scores through training or mentorship.

- Periodic audits to ensure unbiased hiring practices.

- Further analysis on qualitative factors (like interview scores) may provide deeper insight.