Business Proposal: Employee Retention & Attrition

1. Introduction

Employee attrition (employees leaving) is costly—it leads to lost productivity, recruitment expenses, and lower morale. The data includes comprehensive information about employees' demographics, job characteristics, satisfaction levels, and attrition status.

2. Business Questions

The following business questions will guide this analysis:

1. What are the primary factors that contribute to employee attrition?
2. How does job satisfaction correlate with retention rates across different departments?
3. What is the relationship between monthly income and attrition rates?
4. How do work-life balance ratings differ between employees who stay and those who leave?
5. Which job roles have the highest and lowest attrition rates?
6. How does the number of promotions affect employee retention?
7. What is the impact of remote work options on employee satisfaction and retention?

3. Detailed Data Overview

Data source: https://www.kaggle.com/

The dataset contains 50000 record and the following 19 columns:

- **Employee ID**: Unique identifier for each employee
- **Age**: Employee's age
- **Gender**: Male or Female
- **Years at Company**: Tenure with the organization
- **Job Role**: Department and position (e.g., Healthcare, Technology, Education)
- **Monthly Income**: Compensation amount
- **Work-Life Balance**: Rating (Poor, Fair, Good, Excellent)
- **Job Satisfaction**: Rating (Low, Medium, High, Very High)

- **Performance Rating**: Evaluation (Below Average, Average, High)
- **Number of Promotions**: Count of promotions received
- **Overtime**: Whether employee works overtime (Yes/No)
- **Distance from Home**: Commuting distance
- **Education Level**: Highest degree earned
- **Marital Status**: Single, Married, Divorced
- **Number of Dependents**: Count of dependents
- **Job Level**: Entry, Mid, Senior
- **Remote Work**: Whether employee works remotely (Yes/No)
- **Employee Recognition**: Level of recognition received (Low, Medium, High)
- **Attrition**: Whether employee stayed or left (Stayed/Left)

4. Project Process

1. **Domain Knowledge**: Understand HR and workforce management principles
2. **Data Cleaning**: Handle missing values, correct data types, standardize categories
3. **Feature Engineering**: Create new meaningful variables from existing data
4. **Exploratory Data Analysis**: Identify patterns and relationships
5. **Data Visualization**: Create charts and graphs to illustrate findings
6. **Data reprocessing:** prepare data to make models to predict attrition risk
7. **Recommendation Development**: Formulate actionable business strategies

5. Proposed Solutions

1. Compensation Level

🔍 Employees with lower compensation tend to leave more frequently

☑ Solutions:

- Implement structured compensation bands
- Offer performance-based incentive programs

2. Work Hours & Overtime

🔍 Excessive overtime correlates with higher attrition

☑ Solutions:

- Establish reasonable overtime limits
- Provide overtime compensation alternatives

3. Work-Life Balance

🔍 Poor work-life balance drives turnover

☑ Solutions:

- Implement flexible scheduling options
- Encourage proper break periods

4. Tenure & Career Growth

🔍 Employees at certain tenure stages are more likely to leave

☑ Solutions:

- Conduct regular career development conversations
- Create transparent promotion pathways
- Offer progressive role enhancements

5. Commuting Distance

🔍 Longer commutes impact retention

☑ Solutions:

- Develop remote/hybrid work options
- Provide commuting support programs
- Allow flexible arrival/departure times

6. Department-Specific Factors

🔍 Certain department experience higher turnover

☑ Solutions:

- Customize retention strategies by department
- Create role-specific development opportunities

8. Conclusion

This data-driven approach to employee retention will enable targeted, effective interventions that address the specific needs of your workplace. By implementing these evidence-based solutions, we can significantly improve retention, reduce turnover costs, and build a more engaged and productive workplace.