

HR Analytics - Boosting Retention with Data Insights at Adecco India

1. Executive Summary

Project Overview: This project aims to analyze employee retention patterns at Adecco India by exploring various factors contributing to attrition. Using HR analytics, we will identify key drivers of employee turnover, understand the underlying causes, and propose actionable insights to boost retention rates.

Objective:

- Understand factors influencing employee retention and attrition.
 - Provide data-driven recommendations to HR for improving retention strategies.
 - Develop actionable insights based on employee data.
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2. Problem Statement

Employee attrition at Adecco India is higher than the industry average, and the HR team is facing challenges in retaining talent. This project aims to identify key drivers of attrition and suggest data-backed strategies to improve retention rates, ensuring a more engaged and stable workforce.

3. Stakeholders Involved

- Internal Stakeholders:
 - HR Department
 - Data Science Team
 - Senior Leadership Team
 - Employee Engagement Team
 - External Stakeholders:
 - Employees (Current and Past)
 - Recruitment Agencies
 - External Consultants (if required)
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4. Data Collection and Preparation

Data for this analysis has been collected from multiple HR systems and includes employee details such as:

- Demographic information (Age, Gender, Marital Status)
- Job-related details (Job Role, Department, Tenure)
- Performance data (Performance Ratings, Training Hours, Job Satisfaction)
- Attrition information (Yes/No)

Data cleaning processes included handling missing values, outliers, and converting categorical variables into numerical formats for analysis.

5. Exploratory Data Analysis (EDA)

In this section, we will present the EDA process, including insights gained from analyzing the data and how we structured the analysis.

Question 1: What is the overall attrition rate?

- **Analysis:** Calculated the total number of employees who left (Yes) divided by the total employees in the dataset.
 - **Insight:** The overall attrition rate is **16.12%**, which indicates a significant proportion of employees leaving.
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Question 2: Which departments have the highest attrition?

- **Analysis:** Segregated attrition by department (Sales, R&D, HR) and calculated attrition rates for each.
 - **Insight:** Sales and R&D departments have the highest attrition rates compared to HR.
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Question 3: Is there a gender difference in attrition?

- **Analysis:** Examined attrition rates separately for male and female employees.
 - **Insight:** Both genders exhibit similar attrition patterns, with males slightly higher.
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Question 4: What is the relationship between age and attrition?

- **Analysis:** Binned employees into age groups (e.g., 20-30, 31-40) and calculated attrition rates for each.

- **Insight:** Younger employees (20-30) have higher attrition rates.
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Question 5: Does monthly income impact attrition?

- **Analysis:** Grouped employees by income ranges and analyzed attrition rates.
 - **Insight:** Employees with lower incomes (< ₹40,000) have higher attrition rates.
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Question 6: How does job satisfaction influence attrition?

- **Analysis:** Segmented employees by job satisfaction levels (1-4) and analyzed attrition rates.
 - **Insight:** Employees with lower job satisfaction (1, 2) have the highest attrition rates.
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Question 7: What is the impact of work-life balance on attrition?

- **Analysis:** Evaluated attrition rates across work-life balance levels (1-4).
 - **Insight:** Poor work-life balance (level 1) correlates with higher attrition rates.
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Question 8: Does the number of years in the company affect attrition?

- **Analysis:** Calculated attrition rates for employees based on years at the company.
 - **Insight:** Attrition is higher for employees with 0-3 years of tenure.
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Question 9: How does training time on attrition impact?

- **Analysis:** Analyzed attrition rates based on the number of training hours attended.
 - **Insight:** Employees with less training have higher attrition rates.
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Question 10: How does marital status affect attrition?

- **Analysis:** Compared attrition rates among single, married, and divorced employees.
 - **Insight:** Single employees exhibit the highest attrition rates.
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Question 11: How do stock options impact attrition?

- **Analysis:** Grouped employees by stock options availability and analyzed attrition rates.
 - **Insight:** Employees with no stock options have higher attrition rates.
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Question 12: How does job involvement impact attrition?

- **Analysis:** Segmented employees by job involvement level and analyzed attrition.
 - **Insight:** Employees with low job involvement have the highest attrition rates.
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Question 13: Is there a relationship between age and job satisfaction?

- **Analysis:** Analyzed the correlation between age and job satisfaction levels.
 - **Insight:** Older employees show higher satisfaction levels than younger employees.
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Question 14: Does business travel frequency affect attrition?

- **Analysis:** Evaluated attrition rates among employees who travel frequently for business.
 - **Insight:** Employees who travel frequently for business have higher job dissatisfaction.
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Question 15: How do promotions impact attrition?

- **Analysis:** Compared attrition rates among employees who received promotions vs. those who did not.
 - **Insight:** Employees who did not receive promotions exhibited higher attrition.
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Question 16: How does monthly income influence retention?

- **Analysis:** Examined if employees with higher incomes are more likely to stay.
 - **Insight:** Employees earning more than ₹50,000 tend to stay longer with the company.
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Question 17: What is the impact of performance ratings on attrition?

- **Analysis:** Examined attrition rates based on employee performance ratings.
- **Insight:** Employees with low performance ratings have higher attrition rates.

Question 18: How does tenure correlate with attrition?

- **Analysis:** Analyzed attrition based on employee tenure (0-3 years, 4-6 years, etc.).
 - **Insight:** Employees with more than 3 years of tenure exhibit lower attrition.
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Question 19: How does job role impact attrition?

- **Analysis:** Grouped employees by job role and analyzed attrition rates for each role.
 - **Insight:** Employees in junior roles exhibit higher attrition compared to senior roles.
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Question 20: Does the distance from work affect attrition?

- **Analysis:** Examined if employees who commute long distances have higher attrition rates.
 - **Insight:** Employees with longer commutes tend to leave the company more often.
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6. Key Insights and Recommendations

Based on the analysis, the following actionable insights and recommendations have been derived to boost retention at Adecco India:

1. **Improve Work-Life Balance:** Employees with poor work-life balance (level 1) have the highest attrition. HR should focus on flexible work arrangements.
 2. **Incentivize Promotions:** Employees who received promotions exhibited lower attrition. Introducing clear growth pathways can improve retention.
 3. **Provide More Training:** Lack of training correlates with high attrition. Offering more learning and development opportunities can keep employees engaged.
 4. **Enhance Job Satisfaction:** Job satisfaction significantly impacts retention. Initiatives to improve job involvement, recognition, and career development can help.
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7. Conclusion

This HR analytics project has provided valuable insights into the factors affecting employee retention at Adecco India. By addressing these key factors through targeted HR strategies, Adecco can reduce attrition and enhance employee satisfaction and loyalty.

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