

IBM HR Analytics Dashboard – Employee Attrition Analysis

Project Report

Title:

IBM HR Analytics Dashboard – Employee Attrition Analysis

Objective:

To analyze employee attrition patterns within IBM and identify the key factors influencing employee turnover, with the aim of providing actionable insights to improve employee retention.

Tools and Technologies Used:

- Power BI/Tableau for dashboard visualization
 - Excel/CSV data sources
 - Python/R for preprocessing (if applicable)
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Data Overview:

- **Total Employees Analyzed:** 1,470
 - **Total Attrition Count:** 237
 - **Attrition Rate:** 16.12%
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Analysis Highlights:

Attrition by Gender

- Male: 588 employees (61.57%), with 150 attritions
- Female: 882 employees (37.55%), with 87 attritions

Attrition by Age Group

- 26–35 years: Highest attrition count
- 46–55 years: Lowest attrition

Attrition by Salary Slab

- Majority attrition in the “below 3k” salary bracket

- Attrition decreases in higher salary ranges

Attrition by Education

- Life Sciences and Marketing contributed the most attrition

Attrition by Years at Company

- Highest attrition in the first 2 years
- Stabilizes after ~10 years

Attrition by Business Travel

- Employees traveling rarely showed the highest attrition

Attrition by Department

- Research & Development and Sales had the highest attrition

Attrition by Job Role and Level

- Laboratory Technician, Sales Executive, and Research Scientist faced high turnover
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Key Insights:

- Younger employees (26–35) and low salary brackets are more prone to attrition.
 - Early tenure employees (<2 years) are at higher risk.
 - High-pressure departments show elevated turnover.
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Recommendations:

- Retention programs for new employees
 - Improved compensation for lower salary brackets
 - Engagement initiatives for Sales and R&D
 - Flexible work options for frequent travelers
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Conclusion:

This analysis highlights the critical attrition trends within IBM's workforce. Addressing these risk factors can help improve employee satisfaction and reduce turnover.

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