

HR Employee Attrition Analysis

Tool Used: Power BI

Author: Aarti Gupta

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1. Project Overview

This project aims to analyze employee attrition using Power BI and uncover the key factors driving employee turnover. The insights derived are intended to help the HR department make data-driven decisions to improve employee retention and engagement.

2. Objectives

- Identify employee segments with high attrition.
- Understand the relationship between attrition and key features such as:
 - Job Role
 - Monthly Income
 - Work-Life Balance
 - Job Satisfaction
 - Years at Company
- Visualize patterns and KPIs in an interactive dashboard.

3. Dataset Summary

The dataset includes various attributes such as:

Features	Description
Employee ID	Unique identifier for each employee
Age, Gender	Demographic information
Department, Job Role	Organizational placement
Monthly Income	Salary details
Job Satisfaction	Employee satisfaction score (1–4)
Work-Life Balance	Work-life balance rating (1–4)
Years at Company	Employee tenure
Attrition	Whether the employee has left (Yes/No)

4. Key Insights

- **Attrition is highest** among employees with **0–2 years** at the company.
- Departments such as **Sales** and **Human Resources** show elevated attrition rates.
- Employees with **low job satisfaction** and **poor work-life balance** are more likely to leave.
- Higher **monthly income** appears to improve retention, especially in non-sales roles.

5. Dashboard Features

The Power BI dashboard includes:

- KPI Cards: Attrition rate, total employees, average income
- Department-wise attrition breakdown
- Attrition by Gender and Job Role

- Monthly Income vs. Attrition (Bar Chart)
- Years at Company vs. Attrition (Line Chart)
- Job Satisfaction & Work-Life Balance visualizations
- Interactive filters for deep-dives

6. Business Recommendations

1. **Strengthen onboarding and engagement** for new hires (0–2 years).
2. Implement **targeted retention programs** in high-attrition departments.
3. Focus on improving **work-life balance policies**.
4. Regularly survey and address **job satisfaction** levels.
5. Offer **competitive compensation** to reduce income-based churn.

7. Tools & Techniques

- **Power BI Desktop** for visualization
- **DAX** for calculated KPIs
- **Power Query** for data cleaning and transformation
- Best practices in interactive dashboard design

8. Conclusion

This HR Attrition Analysis dashboard provides clear, actionable insights that can guide strategic retention efforts. With interactive visuals and deep-dives into key drivers, HR professionals can better understand and address the root causes of employee turnover.