

HR Analytics Project Report: Employee Attrition Analysis

Introduction: This project focuses on analysing employee attrition using HR data to uncover key factors contributing to resignations and to predict future attrition risks. By leveraging data analytics tools, the goal is to provide meaningful insights that HR teams can use to improve employee retention strategies.

Abstract: The dataset contains various employee attributes such as age, gender, department, job title, years at the company, satisfaction level, salary, and attrition status. Through data visualization and predictive modelling, we aim to:

- Identify patterns of attrition across job roles and departments
- Evaluate satisfaction levels and their impact on attrition
- Provide KPIs like average salary, average satisfaction, and attrition percentage

Tools Used:

- Microsoft Excel (for initial data cleaning)
- Power BI (for data visualization and dashboard building)

Steps Involved in Building the Project:

1. Data Import & Cleaning:

- Imported HR dataset into Excel and Power BI.
- Checked for missing values and ensured consistent formatting.

2. Exploratory Data Analysis (EDA):

- Visualized gender distribution, department-wise employee counts, and job titles.
- Analyzed attrition patterns across job titles and departments.

3. Key Visuals Created:

- Bar Chart: Attrition count by Job Title
- Line/Bar Chart: Satisfaction Level vs Attrition
- KPI Cards: Average Salary, Average Satisfaction, Attrition %
- Slicers: Gender, Department, Job Title for dynamic filtering

4. KPI Calculation:

- Created DAX measures for Average Salary, Average Satisfaction, and Attrition %
- Used Card visuals to display the KPIs on the dashboard

5. Dashboard Creation:

- Combined visuals and slicers into an interactive Power BI dashboard.

- Enabled end-users to filter and explore attrition trends by various dimensions.

Conclusion: This project enhanced my understanding of data visualization and HR analytics. It helped identify the main factors influencing employee attrition, such as low satisfaction levels and job role types. The use of Power BI made the analysis intuitive and actionable. Overall, this project improved my analytical thinking and Power BI proficiency, which are valuable skills for data-driven decision-making in HR.