

# HR Attrition Analysis Dashboard



## Project Overview

Employee attrition presents a critical challenge for organizations, affecting workforce stability and operational efficiency. This project conducts a comprehensive analysis of HR attrition data, employing advanced analytics and interactive visualization through Power BI. The goal is to uncover key drivers of employee turnover and provide actionable, data-driven insights for strategic decision-making.

## Project Workflow

### 1. Data Preparation:

The dataset was meticulously cleansed and transformed using Power Query in Power BI to ensure accuracy and consistency. Key steps included:

- Removing redundancies and handling missing data.
- Standardizing categorical variables to enhance uniformity.
- Creating derived metrics, such as "Years at Company" and attrition indices, to enrich the dataset.

### 2. Exploratory Data Structuring:

Initial analyses were conducted using Excel pivot tables to identify patterns and formulate hypotheses. Key discoveries included:

- Attrition trends across demographic and professional attributes.

- Variability in tenure, compensation, and job roles.

### 3. Dashboard Development:

The refined dataset was visualized through an interactive Power BI dashboard, designed with:

- Dynamic, multi-layered graphics for comprehensive exploration.
- User-driven filters and slicers to tailor insights.
- A cohesive structure that tells a compelling narrative.

## Key Metrics and Features

The dashboard provides a multidimensional analysis of attrition, including:

- **Workforce Demographics:** Aggregate metrics such as total employee count and average age.
- **Attrition Dynamics:** Trends in turnover rates segmented by key factors.
- **Detailed Segmentation:**
  - Attrition by education level, age, and tenure.
  - Correlations between job satisfaction scores (rated 1-4) and attrition.
  - Analysis of salary ranges in relation to attrition trends.
  - High-turnover job roles identified for targeted action.

## Analytical Insights

### 1. High Attrition Among Early-Career Employees:

Employees with approximately one year of tenure accounted for the highest attrition, with 59 departures recorded.

### 2. Impact of Job Satisfaction:

Lower job satisfaction scores were significantly correlated with higher attrition, particularly among lab technicians, who experienced 62 departures.

### 3. Compensation Disparities:

Unequal salary structures emerged as a key attrition driver, highlighting the need for equitable pay practices.

## Interpretive Narrative

This analysis highlights the complex factors influencing employee retention. Recommendations include:

- Implementing mentorship programs and professional growth opportunities to support early-career employees.
- Addressing job-specific challenges to improve satisfaction and retention.

- Revising salary frameworks to ensure internal equity and competitiveness.

## **Conclusion**

The HR Attrition Analysis Dashboard transcends traditional reporting by providing an interactive platform to diagnose and mitigate workforce challenges. It empowers decision-makers with a data-driven perspective to proactively manage attrition and foster organizational resilience.