**HR DATA ANALYSIS**

**Project Scope**

*The goal of this Power BI project is to analyse and identify the reasons for employee attrition within the organization. Employee attrition refers to the process of employees leaving the company voluntarily or involuntarily. By leveraging Power BI's data visualization capabilities, the project aims to provide valuable insights into the factors influencing attrition, enabling informed decision-making and retention strategies.*

**Selection of Key Performance Indicators (KPIs)**

1. **Education Level:** Employees with higher education levels (Life Sciences and Medical) may have different career aspirations, job preferences, and expectations, at the beginning of their career which can influence their decision to leave the company.
2. **Age:** The age bracket with the highest attrition rate is 26-35 years, or when employees where at the beginning of their career. As the age increases attrition decreases.
3. **Job Rating:** Employee’s ratings may give insight about the likeliness an employee is going to leave the company in the near future.
4. **Gender:** Which gender has a lower attrition rate.
5. **Salary:** To see if the amount of salary does or does not impact the attrition rate, and in which salary bracket it influences the most.
6. **Job Role:** Which job roles have the highest attrition rates, and are they more demanding jobs.
7. **Company Years:** The number of years of experience with the company is inversely proportional to the likeliness of employee leaving the firm.

**Data Cleaning**

1. Removed the last row ‘YearsWithCurrManager’ as it had missing data and was irrelevant to the current analysis.
2. A total of 57 rows were removed due to duplicate ‘EmpID’
3. Replaced all ‘TravelRarely’ values to ‘Travel\_Rarely’ in ‘BusinessTravel’ column for consistency.
4. Changed the column types of all column from text to their accurate datatype.
5. Created a custom column ‘AttritionCount’ to convert ‘Attrition’ column into a numeric column for analysis.

**Hypothesis**

1. The highest attrition rate is during the first few years of job.

**Observation:** Highest number of employees who left the company only worked for less than 2 years, hence proving the hypothesis correct.

1. Attrition is gender neutral.

**Observation:** Attrition is not gender neutral as there are almost double the number of male employees who left the job (150), compared to female (87). Proving the hypothesis wrong.

1. Job Payee has a strong influence in employee attrition.

**Observation:** Jobs with the lowest pay, i.e., under 5K, sees the highest attrition rates (163). Proving the hypothesis correct

**Suggestions**

1. To decrease attrition within two years, the company should focus on a strong onboarding process, career development opportunities, recognition programs, work-life balance, and feedback. These strategies create a positive work environment, boost employee satisfaction, and foster long-term commitment to the company.
2. To decrease the attrition rate of employees earning less than 15K, the company should implement targeted strategies. Offer skill development opportunities and clear career paths to encourage growth within the organization. Recognize and appreciate their efforts through regular feedback and acknowledgment programs. Organize team-building events and create a positive work environment. By adopting these measures, the company can create a supportive workplace, and reduce attrition among lower-paid employees.
3. To reduce attrition in complex job roles (lab technicians, research scientists, sales executives), the company should focus on building career paths, learning opportunities, competitive compensation, work-life balance, recognition, engagement, and communication. Create a supportive atmosphere to improve satisfaction and retention.

End of report