HR Analytics - Predict Employee Attrition

Overview

This report presents a comprehensive and easy-to-understand analysis of employee attrition using Power BI. It includes various visualizations that help highlight the key areas of concern regarding attrition, supporting HR teams in developing effective strategies for employee retention.

📊 Visualizations and Key Insights

1. Attrition by Gender *(Pie Chart)*

- **Male:** 63.29% attrition
- **Female:** 36.71% attrition
- **Insight:** Male employees have a significantly higher attrition rate, indicating a need to evaluate role satisfaction and work conditions for male staff.

2. Attrition by Marital Status *(Bar Chart)*

- **Single:** Highest attrition
- **Married:** Moderate attrition
- **Divorced:** Lowest attrition
- **Insight:** Single employees show higher attrition, possibly due to increased mobility or lack of attachment to the organization.

3. Attrition by OverTime *(Pie Chart)*

- **OverTime = Yes:** 127 (53.59%)
- **OverTime = No:** 110 (46.41%)
- **Insight:** Employees who work overtime show a slightly higher attrition rate. This could indicate that long working hours and workload stress are potential factors leading to attrition. Fostering a better work-life balance may help improve retention.

4. Years at Company vs Attrition *(Line Chart)*

- **Trend:** Most attrition occurs within the first 1–5 years
- **Insight:** Newer employees may require improved onboarding and career path clarity to stay longer.

5. Attrition by Job Role *(Clustered Column Chart)*

- **Highest in:** Sales Executive, Research Scientist, Lab Technician
- **Insight:** These roles may lack growth opportunities or face higher stress levels. Further analysis can help identify root causes.

6. Attrition by Department *(Clustered Column Chart)*

- **Most affected:** Research & Development followed by Sales
- **Insight:** High attrition in core departments might impact productivity and innovation, highlighting the need for improved departmental support.

💼Filters and Slicers

Interactive slicers included: - **Education Level:** Bachelor, Master, College, etc. - **Job Level:** Level 1 to Level 5

These filters allow dynamic analysis of attrition trends based on employee qualifications and job hierarchy.

🕐Key Metric

- **Total Attrition (Card): 237** employees have left the company.

This number gives a quick snapshot of the overall attrition volume.

🔗Recommendations for HR Strategy

- Develop initiatives targeting male and single employees to improve job satisfaction and reduce attrition.
- Review and optimize overtime practices to promote better work-life balance.
- Focus on onboarding and retention programs for employees in their early years at the company.
- Conduct targeted surveys for high-risk job roles and departments to uncover specific challenges.

⚙️Tools Used

- **Power BI**: Utilized for its user-friendly interface and powerful data visualization capabilities, allowing for clean dashboards and interactive insights.

This dashboard enables data-backed decision-making to reduce attrition and foster a more stable workforce.