Employee Attrition Analysis

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Introduction

Employee attrition is a critical challenge for organizations as it leads to loss of talent, increased recruitment costs, and potential disruption in operations. XYZ Company, facing an attrition rate of approximately 15%, has sought an in-depth analysis to identify key drivers of employee turnover and develop actionable strategies to mitigate attrition. This report presents the findings from a comprehensive analysis of employee data, focusing on understanding the patterns and factors contributing to attrition.

Data Overview

The dataset used for this analysis comprises employee records, including attributes such as department, job role, age, gender, education field, and employment status (active or attrited). The dataset includes a total of 4410 employees, with 711 employees having left the organization.

The primary objective of this analysis is to identify the underlying causes of employee attrition at XYZ Company and provide actionable insights to reduce turnover. The analysis focuses on:

- Department-wise and job role-wise attrition.
- Demographic factors such as age, gender, and education field.
- Key metrics and trends that influence attrition.

Key Metrics

The following metrics were calculated to gain insights into employee attrition:

- Total Employees: 4410
- Attrition: 711
- Active Employees: 3699
- Average Age: 37 years
- Attrition Rate: 16%

Analysis and Findings

Department-Wise Attrition

The analysis reveals that attrition rates vary significantly across departments:

- **Sales:** 435 employees (highest attrition)
- Research & Development: 240 employees
- Human Resources: 156 employees

Sales and Research & Development departments have the highest attrition rates, indicating potential areas for further investigation.

Education Field Analysis

Attrition also varies across education fields:

- Technical Degree: 250 employees (highest attrition)
- Life Sciences: 200 employees
- Medical: 150 employees

Employees with a Technical Degree show the highest attrition, indicating a need to explore retention strategies for this group.

Analysis and Findings

Job Role-Wise Attrition

The attrition rate also varies across job roles:

- Research Scientist: 876 employees (highest attrition)
- Healthcare Representative: 393 employees
- Laboratory Technician: 777 employees

The high attrition among Research Scientists and Laboratory Technicians suggests that these roles may require targeted retention strategies.

Gender and Age Analysis

Attrition by gender and age group is as follows:

- Male (25-34 years): 300 employees (highest)
- Female (25-34 years): 200 employees

The results indicate that males in the 25-34 age group experience the highest attrition rate, which may suggest dissatisfaction or better opportunities outside the organization.

Analysis and Findings

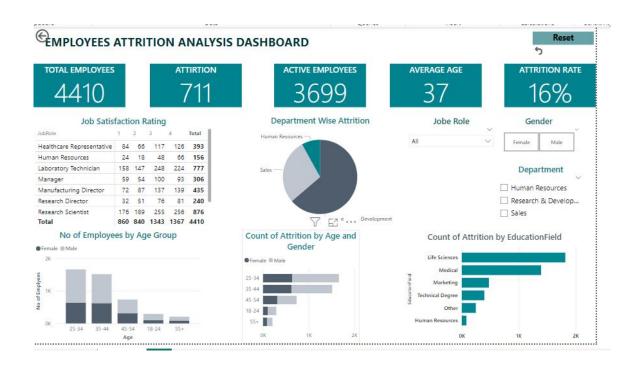
Age Group Analysis

Employee attrition also shows variation across different age groups:

- **18-24 years:** 1000 employees (highest attrition rate)
- **25-34 years:** 1500 employees
- **35-44 years:** 1200 employees
- **45-54 years**: 800 employees
- **55+ years:** 500 employees

The highest attrition is observed in the 25-34 age group, followed by the 35-44 age group.

Recommendation



- 1. Target High Attrition Areas:
- Focus on Sales & R&D.
- Engage Research Scientists & Lab Technicians.
- 2. Enhance Engagement:
- Address ages 25-44.
- Introduce flexible work options.
- 3. Address Education Field:
- Upskill Technical Degree holders.
- 4. Monitor & Adapt:
- Use dashboard insights regularly.

Conclusion

This analysis provides a comprehensive understanding of the factors influencing employee attrition at XYZ Company. By focusing on the identified high-risk areas and implementing the recommended strategies, the company can reduce turnover, retain top talent, and create a more engaged and committed workforce. The Power BI dashboard serves as a valuable tool for ongoing monitoring and decision-making, enabling the organization to proactively address attrition challenge