Employee Attrition Analysis Report

# Introduction

Employee attrition refers to the rate at which employees leave an organization. High attrition can disrupt business operations and increase costs. This report analyzes the reasons behind employee attrition and provides insights and recommendations to help reduce it.

## Methodology

### Data Cleaning

1. Removing Duplicates: Ensured no repeated entries.

2. Correcting Errors: Fixed any data inaccuracies.

3. Standardizing Data: Made sure all data is in a consistent format.

## Data Analysis

### 1. Key Metrics:

- Attrition Count: Total number of employees who left.

- Attrition Rate: Percentage of employees who left, calculated by \((\text{Attrition Count} / \text{Total Employees}) \times 100\).

- Active Employees: Total number of employees currently working.

### 2. Creating Visualizations:

- Developed various charts and dashboards.

- Applied filters, like education fields, for detailed insights.

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## Requirement Analysis

### Key Performance Indicators (KPIs)

- Attrition Count: 237 employees

- Attrition Rate: 16.12%

- Total Employees: 1470

- Active Employees: 1233

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## Other Parameters

- Education Filter: Applied across all visualizations for consistent analysis.

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## Visualizations and Insights

### Department-wise Attrition

#### - Pie Chart:

- HR: 12 employees (5.06% of total attrition)

- R&D: 92 employees (38.82% of total attrition)

- Sales: 133 employees (56.12% of total attrition)

**Insight:** Sales and R&D departments have the highest attrition. This might indicate job stress, lack of growth opportunities, or insufficient compensation.

**Recommendation:** Conduct employee satisfaction surveys in these departments to understand their specific issues and address them.

## Age Group Distribution

**- Vertical Bar Chart:** Shows the number of employees by age group.

- Maximum employees are in the 30-35 age group.

**Insight:** Younger employees, especially those aged 30-35, are more likely to leave.

**Recommendation:** Implement career development programs and mentoring for younger employees to retain them.

## Gender-wise Attrition

**- Lollipop Chart:**

- Female: 87 employees

- Male: 150 employees

**Insight:** More males are leaving compared to females.

**Recommendation:** Investigate if there are specific reasons why males are leaving at a higher rate and address those issues.

## 

## Job Satisfaction by Job Role

**- Treemap: Job satisfaction ratings for different roles.**

**- Sales Executive**: Highest and lowest ratings, indicating mixed feelings.

- **R&D and Laboratory Technician:** Significant variation in job satisfaction.

**Insight:** Job satisfaction is highly variable, especially among Sales Executives.

**Recommendation:** Provide targeted support and resources to Sales Executives to improve their job satisfaction.

## Education Field-wise Attrition

**- Horizontal Bar Chart:** Shows attrition rates by education field.

**- Life Sciences:** Highest attrition.

**- Medical:** Significant attrition.

**- Marketing, Technical Degree, Other, HR:** Lower attrition rates.

**Insight:** Employees with Life Sciences and Medical backgrounds have higher attrition rates.

**Recommendation:** Focus on retention strategies for employees in these fields, such as offering more growth opportunities and better job satisfaction initiatives.

## Attrition Rate by Gender and Age Group

**- Bar Chart:** Attrition rates by gender and age group.

- Under 25: 18 females (9.7%) and 20 males (10.8%)

- 25-34: 43 females (23.1%) and 69 males (37.1%)

- 35-44: 52 females (14.8%) and 85 males (19.4%)

- 45-54: 18 females (4.8%) and 35 males (8.6%)

- Over 55: 6 females (1.6%) and 7 males (4.3%)

**Insight:** Younger males (25-34) have the highest attrition rate.

**Recommendation:** Understand why younger males are leaving and address their concerns, possibly through career advancement opportunities or improved work-life balance.

## Conclusion

This analysis provides a clear view of employee attrition within the company. Key findings include high attrition in the Sales and R&D departments, younger employees leaving more frequently, and significant gender differences in attrition rates. By addressing these areas with targeted interventions, such as improving job satisfaction, providing career development opportunities, and offering flexible work arrangements, the company can reduce attrition rates and enhance overall employee satisfaction.