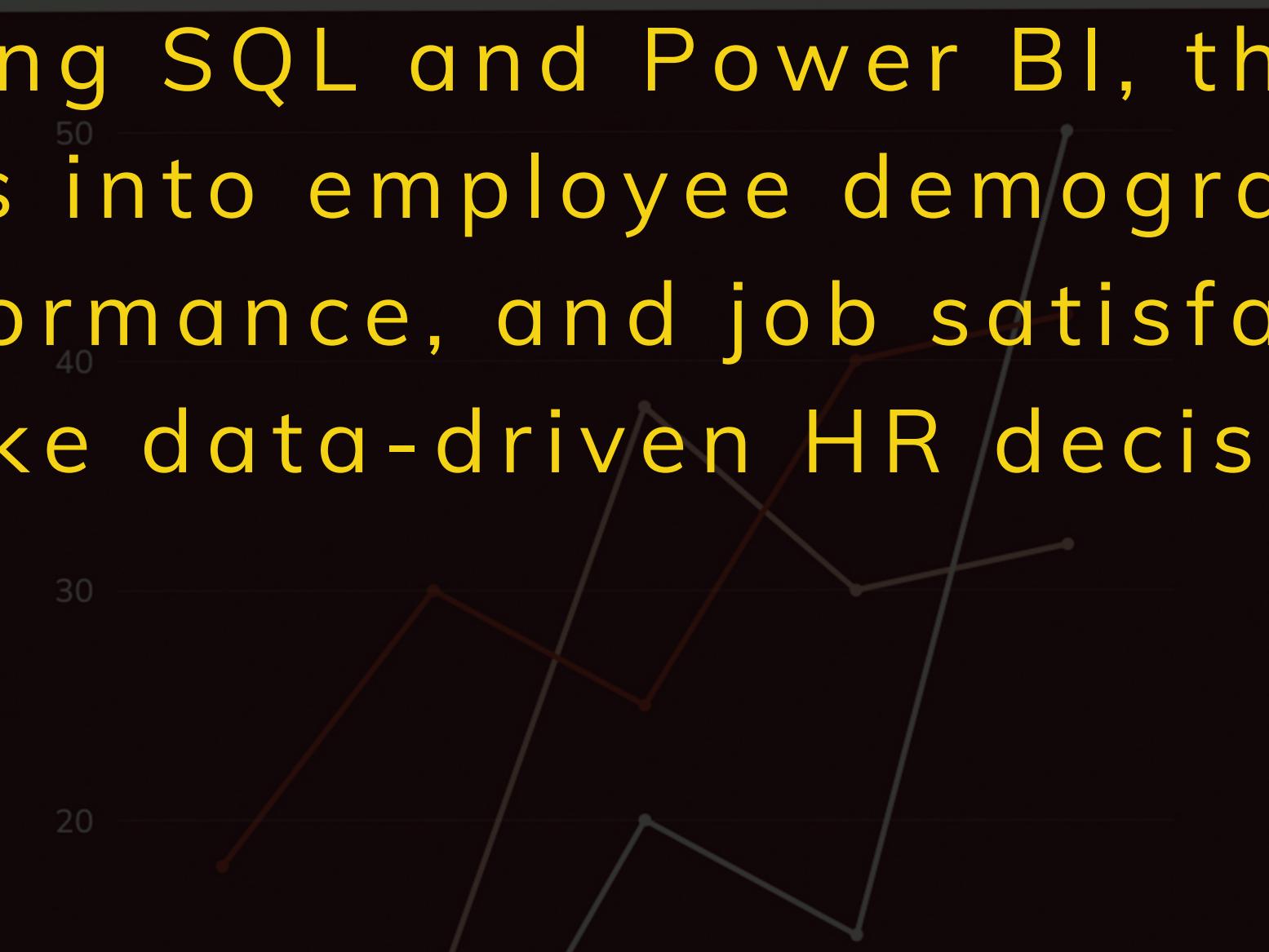


HR DATA ANALYTICS PROJECT REPORT

Project Overview

This project aims to analyze HR data to identify key factors influencing employee attrition and workforce composition. Using SQL and Power BI, the analysis provides insights into employee demographics, department performance, and job satisfaction, helping management make data-driven HR decisions.



ANALYSIS OBJECTIVES

- Identify key employee metrics such as attrition rate, active employee count, and average age.
- Analyze workforce distribution across departments, education fields, and age groups.
- Examine job satisfaction patterns among different job roles.
- Compare attrition trends based on gender and age categories.
- Provide actionable insights and recommendations to improve employee retention and engagement.

Key Performance Indicators

1470

Total
Employees

237

Attrition

16.12%

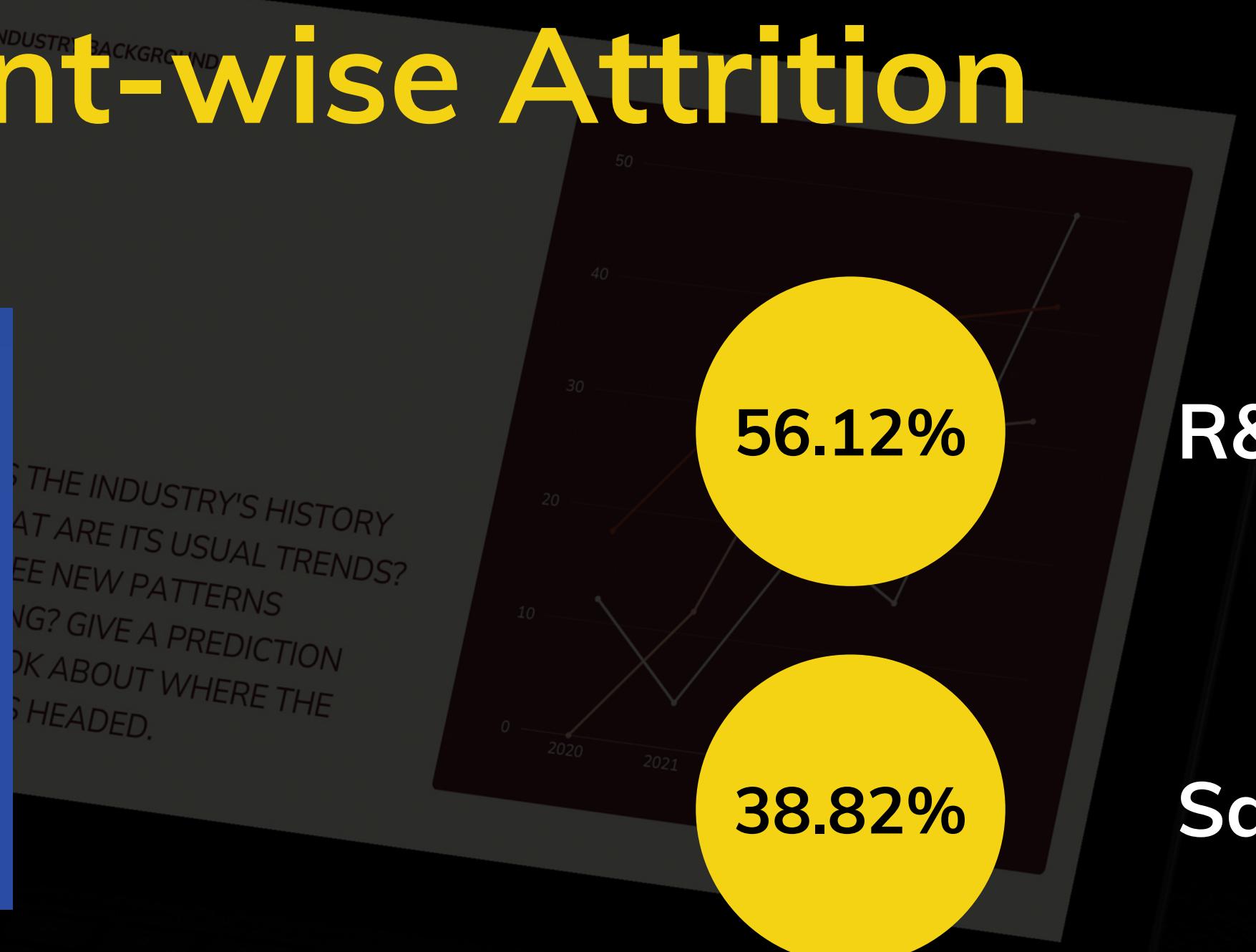
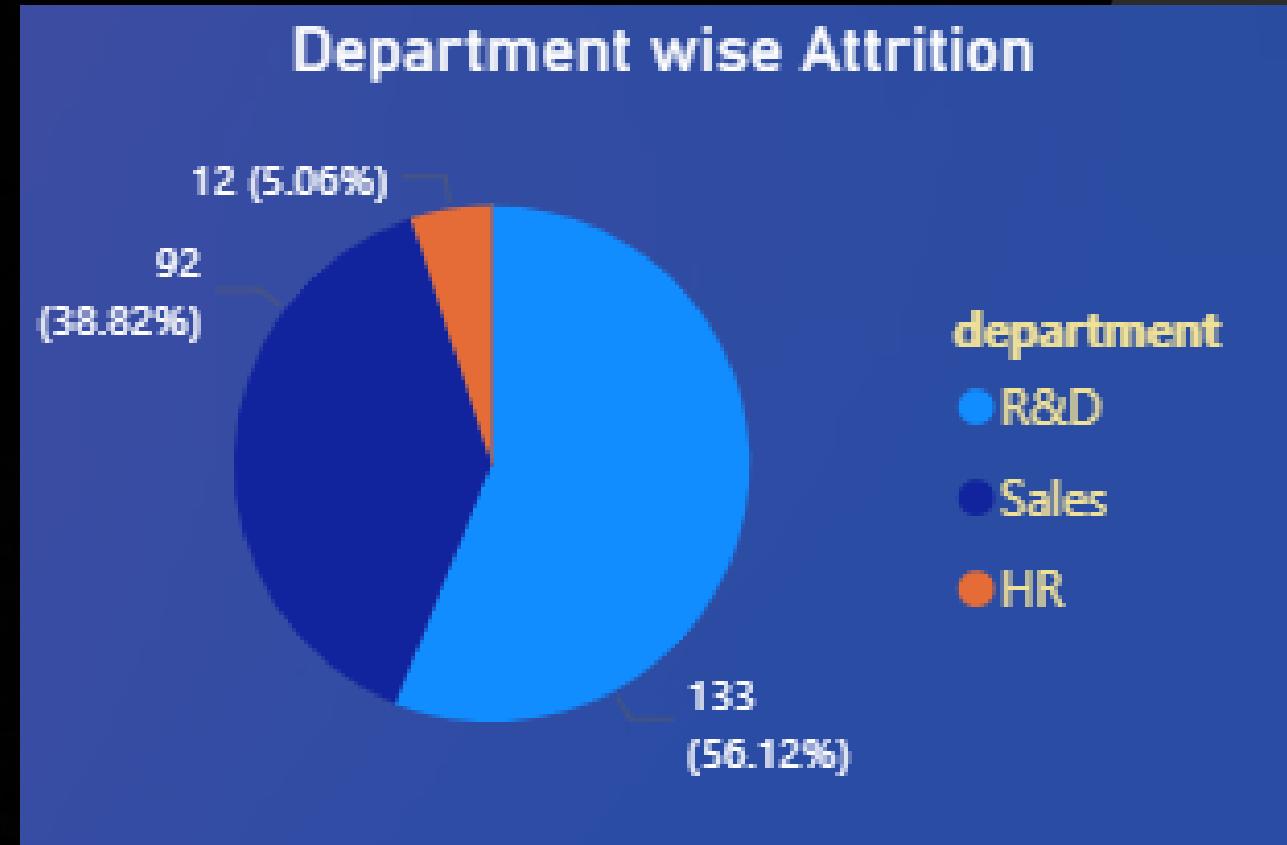
Attrition
Rate

1233

Active
Employees

Attrition is highest among the 25–34 age group, suggesting younger employees are more likely to leave.

Department-wise Attrition



R&D

56.12%

Sales

38.82%

HR

5.06%

The department-wise analysis highlights how employee attrition varies across different functional areas of the organization. The Research & Development (R&D) and Sales departments show the highest attrition rates, indicating possible factors such as high job pressure, performance targets, or limited career growth opportunities.

ATTRITION INSIGHT BY GENDER

58%

Male

42%

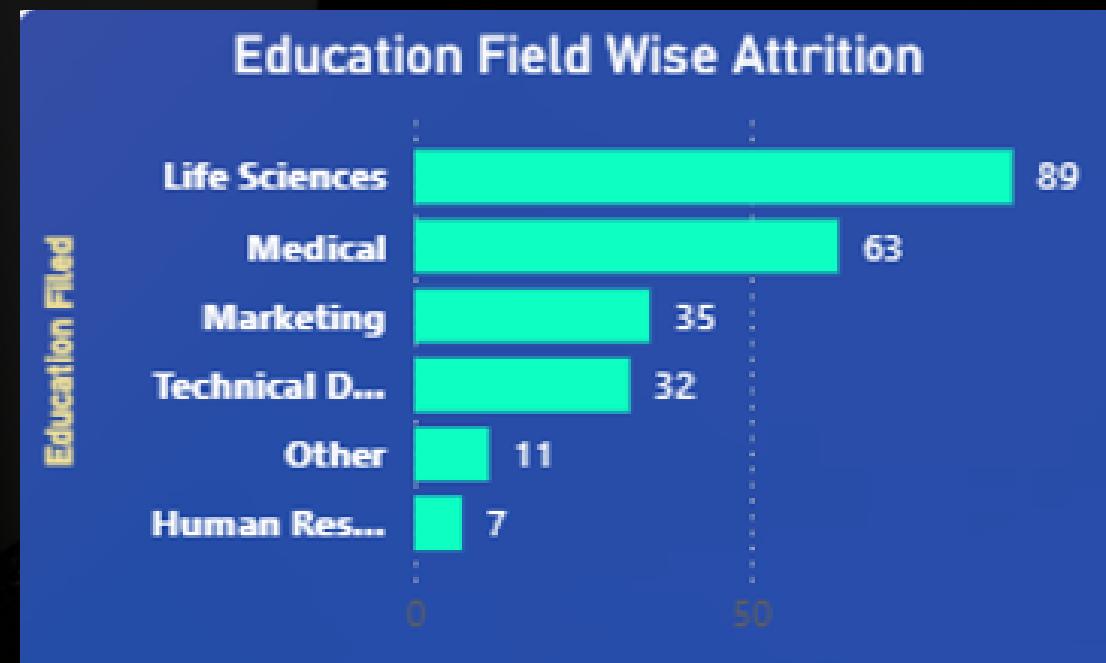
Female

FINANCIAL OUTLOOK

Attrition is slightly higher among male employees, particularly in the 25–34 and 35–44 age groups.

The pattern suggests a need for flexible work policies and stronger retention programs for mid-career professionals.

EDUCATION FIELD-WISE ATTRITION



89%

Life Sciences

The highest attrition is observed among employees from Life Sciences and Medical backgrounds.

These fields represent a large portion of the workforce and show higher turnover rates, possibly due to greater external job opportunities and skill demand.

63%

Medical Field

BUSINESS INSIGHTS

- Employees aged 25–34 show higher attrition rates, highlighting a need for targeted retention programs.
- R&D and Sales departments experience the most turnover; HR should review workload and career growth opportunities.
- Lower job satisfaction correlates with higher attrition; engagement and development initiatives can improve retention.
- Consistent employee feedback collection can help reduce attrition rates.

RECOMMENDATIONS

- Focus on improving retention in R&D and Sales departments.
- Implement targeted programs for employees aged 25–34.
- Enhance job satisfaction and recognition initiatives.
- Provide flexible work options for mid-career employees (35–44).
- Offer growth and learning opportunities for Life Sciences and Medical professionals.
- Continuously monitor attrition data to evaluate retention strategies.

CONCLUSION

This project successfully demonstrates how SQL and Power BI can be used together to analyze HR data and uncover meaningful insights. By identifying key attrition trends, high-risk departments, and satisfaction levels, the analysis supports HR leaders in making strategic, data-driven decisions to enhance employee engagement and retention. The project also showcases technical and analytical skills suitable for a Data Analyst role.

THANK YOU



INDUSTRY BACKGROUND



MOHD SAQUIB AZAM