Report on HR Analysis using power Bi

Title: Employee Analysis and Insights

INTRODUCTION

This Human Resource Analytics Dashboard is designed to provide an overview of employee data and actionable insights for HR management. It leverages Power BI to deliver interactive dashboards, highlighting key metrics in employee demographics, hiring trends, performance analysis, and attrition insights. The purpose of this report is to assist data-driven decision-making and enhance workforce management strategies.

TOOLS USED:

1) Excel

2) Power BI

Section 1: Employee Demographics
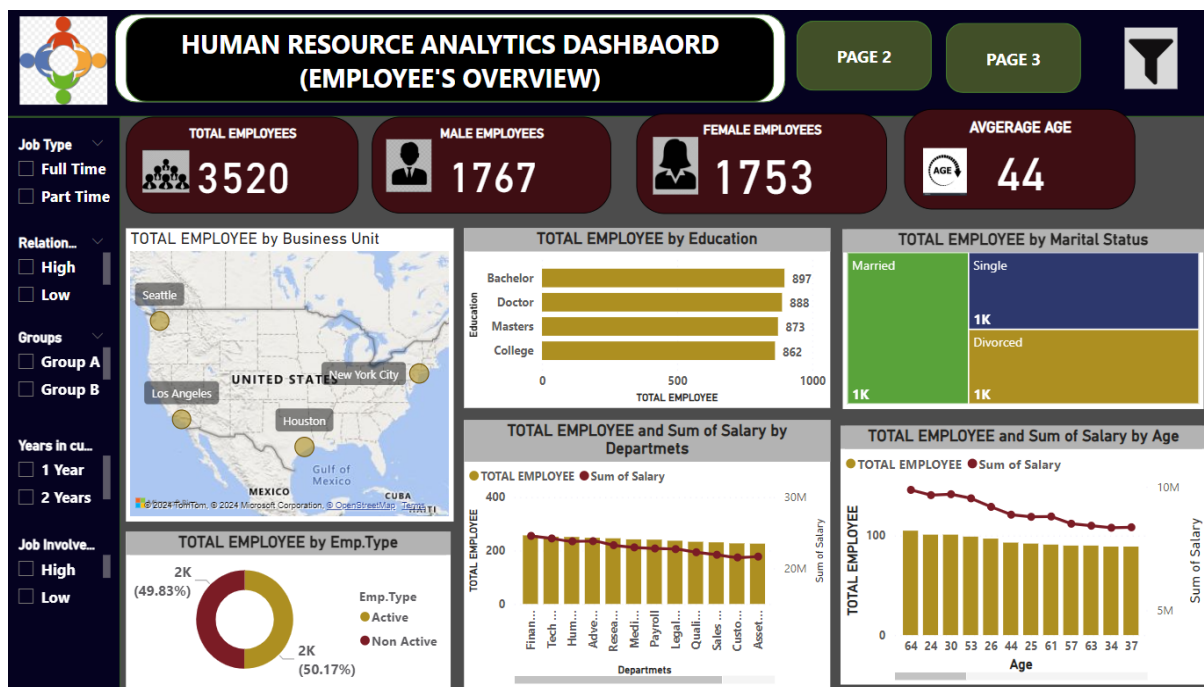
Key Metrics

- **Total Workforce**: The organization employs **3,520 individuals**.
- **Gender Distribution**: The workforce is almost evenly split, with **1,767 male employees** and **1,753 female employees**.
- **Average Age**: Provides an understanding of the workforce's age distribution.
- **Job Types**: Insights into job roles and designations.
- **Business Units and Departments**: Employees are distributed across several departments and business units, offering a detailed view of workforce allocation.

Distribution Metrics

- **Education Levels**: Analysis of employee qualifications.
- **Marital Status**: Understanding the relationship between personal factors and employment trends.
- **Employment Status**: Highlights the proportion of active and non-active employees.
- **Salary Trends**: Salary variations across age groups and departments.

Section 2: Hiring and Performance Analysis
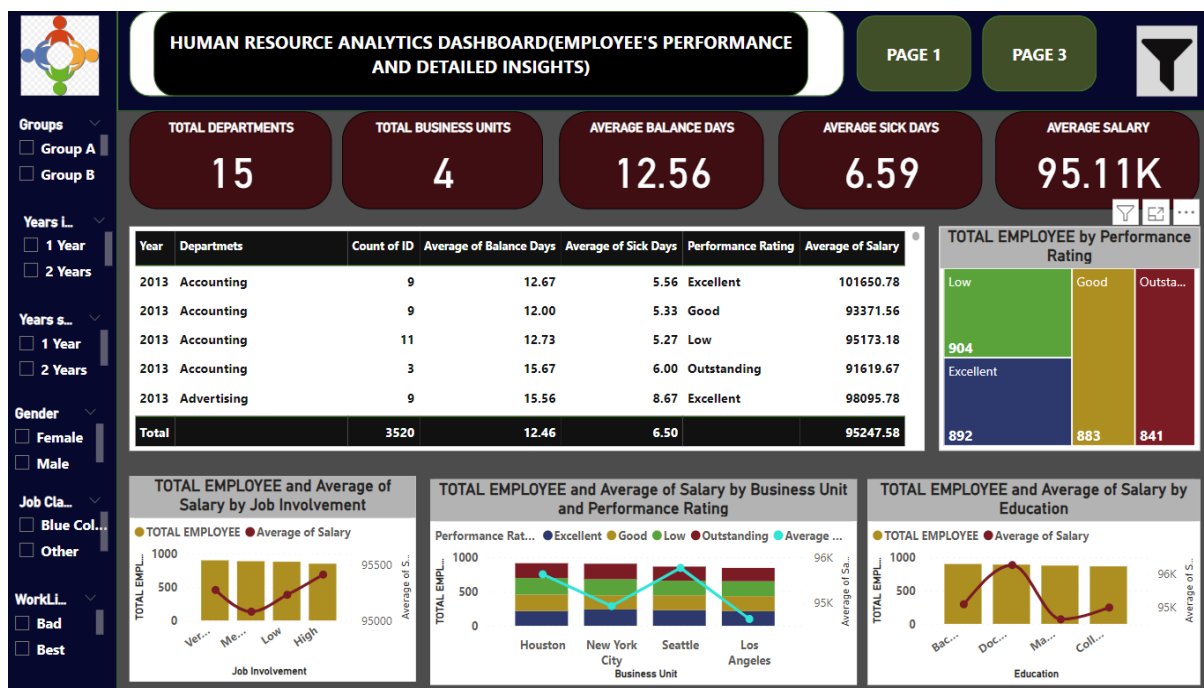
Hiring Insights

- Temporal trends and hiring by job types and departments provide actionable insights into improving recruitment strategies.
- Filters enable HR teams to analyze hiring trends by gender, job type, and department.

This is a Human Resource Analytics Dashboard focusing on employee performance and detailed insights. It highlights metrics such as the number of departments, business units, average balance days, sick days, and average salary. It also provides data on performance ratings, salary trends by job involvement, business unit, education, and performance ratings. Detailed insights per year and department are also shown.

Section 3: Attrition Analysis
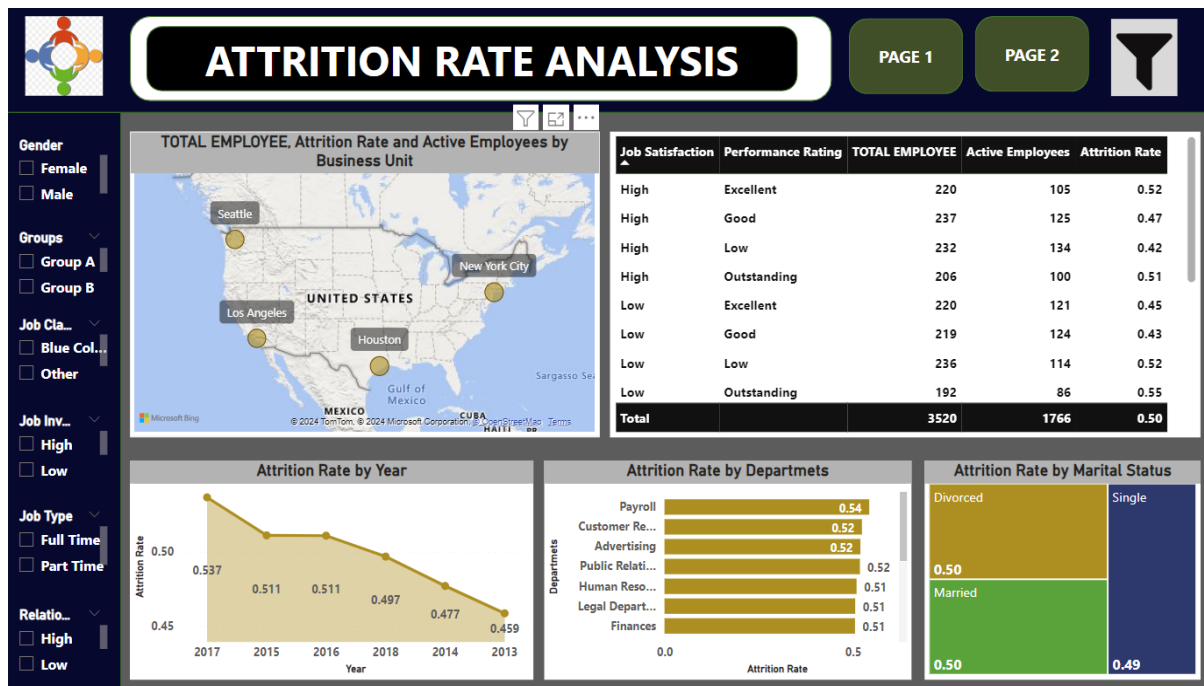
Employee Attrition Overview

The dashboard examines employee attrition across multiple dimensions, revealing the following:

- **Geographical Trends**: Regional variations in attrition.
- **Performance Ratings**: Attrition is linked with performance levels, with lower performers showing a higher likelihood of leaving.
- **Temporal Trends**: Attrition rates over **2017–2019** indicate a **declining trend**, now at **0.50%**.
- **Marital Status Impact**: Divorced employees show higher attrition rates compared to other groups.

High Attrition Areas

- Departments like **Payroll** and **Customer Relations** exhibit **higher attrition rates**, indicating areas that require focused attention.
- **Job Satisfaction**: A **strong correlation** exists between job satisfaction levels and retention rates. Employees with lower satisfaction are more likely to leave.

Key Insights

- **High-Risk Areas**: Departments like **Payroll** and **Advertising** require targeted retention strategies due to higher attrition rates.
- **Salary Trends**: High performers (rated as excellent or outstanding) earn significantly higher salaries, suggesting a link between pay and retention.
- **Single Employees**: Attrition is more common among unmarried employees, potentially due to less dependency on organizational stability.

Summary of Attrition Factors

- **Job Satisfaction**: Employees with lower job satisfaction leave more frequently.
- **Performance Ratings**: Lower-rated employees are more prone to leaving, impacting overall performance.

Conclusion

This HR Analytics Dashboard, created using Power BI, provides a comprehensive view of workforce data through interactive dashboards. It highlights key insights in areas such as employee demographics, hiring trends, performance metrics, and attrition analysis. These insights enable **data-driven decision-making**, helping organizations improve retention strategies, optimize hiring processes, and enhance employee satisfaction.

The results emphasize the importance of understanding employee demographics and trends to ensure sustainable workforce management and organizational success