1   Introducción

This report presents the development and outcomes of the Employee Attrition Dashboard project. The primary objective was to create an interactive dashboard to analyze and forecast employee attrition, aiding the decision-making process for HR management.

1.1   Project Goal:

Develop a dashboard to visualize employee attrition data and derive actionable insights.

1.2   Objectives:

– Identify key factors contributing to employee attrition.
– Provide HR with tools for proactive management. Enhance data-driven decision-making.

2   Design and Development

– **Tools Used:**

  • Tableau for dashboard creation.
  • Python and Pandas for data cleaning and transformation.

– **Data Sources:** Employee attrition dataset (CSV file).
– **Key Metrics:** Attrition rate, employee satisfaction, performance rating, job role distribution.
– **Layout Description:** Dashboard includes various sections such as attrition overview, demographic analysis, performance metrics, and satisfaction scores.

3   Data Preparation

– **Data Cleaning:** Removed duplicates, handled missing values.
– **Transformation:** Standardized data formats, created derived metrics.
– **Handling Missing Data:** Imputed missing values using mean/mode substitution and predictive modeling where applicable

4   Key Features

– **Interactive Elements:** Filters for department, job role, and performance rating. Drill-down capabilities for in-depth analysis.
– **Visualization Types:** Bar charts, pie charts, heat maps, and trend lines.
– **User Experience**

  • **UI Design Principles:** Intuitive layout, consistent color schemes, clear labeling.
  • **Accessibility:** Ensured readability and ease of use across devices.

5   Insights and Analysis

– **Key Findings:**

  • High attrition rates in specific departments and job roles.
  • Correlation between employee satisfaction and attrition.
  • Influence of performance ratings on attrition likelihood.

– **Actionable Insights:**

  • Targeted interventions for high-risk departments.
  • Improvement programs for employee satisfaction.
  • Performance management adjustments.

6   Challenges and Solutions

– **Challenges:**

  • Data quality issues and missing values.
  • Balancing detail with dashboard performance.

– **Solutions Implemented:**

  • Targeted interventions for high-risk departments.
  • Optimization of Tableau extracts for faster load times.

7   Impact and Benefits

– **Business Impact**

  • Enhanced understanding of attrition drivers.
  • Improved HR strategies based on data insights.

– **Benefits Realized:**

  • Reduced attrition rates through targeted interventions.
  • Increased efficiency in HR decision-making.

8   Future Enhancements

– **Potential Improvements:**

  • Incorporate predictive analytics for future attrition trends.
  • Add more detailed demographic breakdowns.

– **Future Updates:**

  • Regular updates with new data, continuous refinement based on user feedback..

9   Conclusion

– Successful creation and deployment of an interactive dashboard.
– Valuable insights into employee attrition patterns and drivers.
– Gained expertise in data visualization and dashboard design.