HR Analytics Dashboard
Data Analyst Assignment

Submitted to: Spotmies LLP

Submitted by: Pendyala Pradeep Reddy

Tool Used: Microsoft Power BI

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Project Summary

Objective: To convert raw HR data into actionable insights for strategic decision-making.

What the Dashboard Covers:

- Workforce distribution
- Attrition analysis
- Hiring trends
- Demographic insights
- Salary patterns
- Recruitment source effectiveness

Outcome: A fully interactive Power BI dashboard with drill-down and filters.

Dataset Overview

Dataset: HRDataset-v14 (Kaggle)

Total Records: 311 employees

Date Range: 2008–2015

Key Columns:

- EmployeeID
- Department, Position
- Employment Status
- Age, Gender, Marital Status
- Salary
- Recruitment Source
- Date of Hire
- Performance Score

Data Cleaning & Preparation

Cleaning Performed:

- Removed duplicates & validated data ranges
- Corrected data types (Date, Salary, Age, Text fields)
- Confirmed no missing values in key fields

Transformations:

- Created Age Bucket (18–25, 26–35, 36–45, 46–55, 55+)
- Built DAX Measures:
  - Headcount
  - Attrition
  - Attrition %
  - Average Salary
  - Average Age

Validation: Ensured data accuracy with manual cross-check.

Dashboard Overview

Key Features:

- Clean and professional layout

- 5 KPI Cards: Headcount, Attrition, Attrition %, Avg Salary, Avg Age

- Filters: Department, Position, Status, State, Gender

Visualizations Including:

- Headcount by Department

- Age Distribution

- Marital Status by Gender

- Hiring Trends

- Attrition Trends

- Recruitment Source Breakdown

Design Philosophy: Minimal, readable, structured, consistent color palette.

Key Insights

1. High Attrition:
- Attrition rate: 33.44%
- Significantly above industry benchmark (15–20%)

2. Workforce Concentration:
- Production department = 67% of total employees

3. Aging Workforce:
- Average age = 46.4 years
- Limited young talent pipeline

4. Recruitment Dominance:
- Indeed (28%) and LinkedIn (24%) = 52% of hires

5. Hiring vs. Attrition Correlation:
- Hiring surge (2011–13) followed by attrition spike

Recommendations

Immediate (0–30 Days):

- Investigate causes of high attrition
- Review salary competitiveness
- Improve onboarding quality

Short-Term (1–3 Months):

- Strengthen referral program
- Launch retention initiatives
- Conduct stay interviews

Long-Term (3–12 Months):

- Succession planning for aging workforce
- Build younger talent pipeline
- Promote internal mobility & skill development

Conclusion

Dashboard provides a 360° view of workforce health

Highlights critical risks in attrition & aging workforce

Identifies strong and weak recruitment channels

Supports smarter HR decisions and long-term planning

Enables leaders to act early and strategically

Thank You