

HR Analytics Dashboard Report

Objective:

This report presents key insights from the HR Analytics Dashboard, which includes employee data analysis, attrition trends, and factors influencing employee retention. The analysis was conducted using various data transformations, including DAX calculations for employee counts, attrition rates, and categorizing years at the company and promotion history.

Data Transformation Process:

- Row Count and Duplication Removal:**
The initial step involved counting the rows in the dataset and removing duplicates to ensure the accuracy of the data.
- Data Type Check:**
Each column's data type was verified to ensure proper analysis and categorization.
- Handling Null Values:**
The `YearsWithCurrManager` column had null values, which were imputed with 0 as the reasons behind these null values could not be determined.
- DAX Calculations:**
Several DAX measures were created for the analysis:

Total Employees: The total count of employees was determined by counting the unique `EmpID` values in the `HRTTable`.

```
TotalEmployees = COUNT(HRTTable[EmpID])
```

EmployeesLeft: A measure to count the number of employees who left the company, defined by the `Attrition` column where "Yes" indicates they left.

```
EmployeesLeft = CALCULATE(COUNT(HRTTable[EmpID]), HRTTable[Attrition] = "Yes")
```

AttritionRate: The attrition rate was calculated by dividing the number of employees who left by the total number of employees with the assumption that average employees remain 1470.

```
AttritionRate = DIVIDE([EmployeesLeft], [TotalEmployees], 0)
```

YearsCategory: A new column was created to categorize employees based on their years at the company.

```

YearsCategory = SWITCH(
    TRUE(),
    HRTTable[YearsAtCompany] >= 1 && HRTTable[YearsAtCompany] < 3,
    "1-3 years",
    HRTTable[YearsAtCompany] >= 3 && HRTTable[YearsAtCompany] < 5,
    "3-5 years",
    HRTTable[YearsAtCompany] >= 5 && HRTTable[YearsAtCompany] < 10,
    "5-10 years",
    HRTTable[YearsAtCompany] >= 10 && HRTTable[YearsAtCompany] < 15,
    "10-15 years",
    HRTTable[YearsAtCompany] >= 15, "15+ years",
    "Unknown"
)

```

PromotionCategory: Another column was created to categorize employees based on the time since their last promotion.

```

PromotionCategory = SWITCH(
    TRUE(),
    HRTTable[YearsSinceLastPromotion] < 1, "Less than 1 year",
    HRTTable[YearsSinceLastPromotion] >= 1 &&
HRTTable[YearsSinceLastPromotion] < 3, "1-3 years",
    HRTTable[YearsSinceLastPromotion] >= 3 &&
HRTTable[YearsSinceLastPromotion] < 5, "3-5 years",
    HRTTable[YearsSinceLastPromotion] >= 5, "5+ years",
    "Unknown"
)

```

Key Insights from the Dashboard:

- **Total Employees:** 1,470 employees in the company.
- **Employees Who Left:** 237 employees left the company during the analyzed period.
- **Attrition Rate:** The attrition rate is 16.12%, indicating a notable percentage of employees left the company.
- **Average Salary:** The average salary of employees is 6.50K.
- **Average Time at Company:** Employees, on average, have been with the company for 7.01 years.
- **Average Employee Age:** The average age of employees is 36.92 years.

Detailed Insights:

- **Attrition Trends:**
 - **High-Risk Demographic:** Single employees in the Sales department, earning up to 5K per month, and working overtime exhibit a staggering attrition rate of 66.67%.
 - **Impact of Training:** Employees who received no training hours over the past year have the highest attrition rate, at 27.78%.
 - **Tenure and Promotions:** Individuals with 0-3 years of tenure and no promotions in the last year face an attrition rate of 29.82%.
 - **Attrition Trends:** Employees with less than 1 year of tenure show the highest attrition rate, with the 25-35 age group experiencing the most significant turnover.
 - **Role-Based Insights:**
 - **Sales Executives** and **Laboratory Technicians** have the highest attrition rates, likely due to the nature of their job roles or industry-specific challenges.
 - **Manufacturing Directors** also face a higher attrition rate despite the role's seniority.
 - **Salary and Attrition:**

Employees with salaries up to 5K exhibit a notably higher attrition rate, indicating potential dissatisfaction or external opportunities in lower-paying positions.
 - **Employee Age & Retention:**

Employees in the 25-35 age group represent the highest proportion of both the workforce and those leaving the company, suggesting a potential gap in retention strategies for this age range.
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Recommendations:

1. **Investigate High Attrition in First Year:**

Analyze the reasons for high attrition rates among employees who have been with the company for less than 1 year. Possible areas of focus could include onboarding experiences, initial job satisfaction, and mentorship.
2. **Salary Review for Lower Salary Bands:**

Since attrition is higher among employees earning up to 5K, a salary review or enhancement of benefits could be explored to improve retention in this pay range.
3. **Targeted Retention Strategies for the 25-35 Age Group:**

Develop strategies that specifically address the needs of employees in the 25-35 age range, possibly focusing on career progression, work-life balance, or additional perks.
4. **Assess Training Programs:**

Examine the effectiveness of training programs, particularly those related to high-turnover roles. Investing in professional development may reduce attrition, especially if linked to higher job satisfaction.
5. **Role-Specific Interventions:**

Since certain roles like Sales Executives and Laboratory Technicians face higher

attrition, tailor retention strategies for these job functions, potentially by addressing role-specific challenges, workload, and compensation.

This HR Analytics Dashboard provides a detailed view of employee trends, identifying areas for improvement to reduce attrition and improve employee satisfaction and retention.