

Project Overview

Green Destination, a renowned travel agency, has recently observed a concerning increase in employee attrition. The HR director has initiated a project to analyze this trend, identify potential patterns, and determine the underlying factors contributing to the attrition rate. The goal is to gain insights into whether aspects like age, years of service, and income influence an employee's likelihood of leaving the company.

Objective

The primary objective of this project is to analyze the attrition rate at Green Destination and explore the relationships between employee attributes such as age, years at the company, and income. The insights derived from this analysis will assist the HR department in making informed decisions to improve employee retention.

Key Features of the Analysis

1. Employee Count by Age Group:

- **Objective:** To understand the distribution of employees across different age groups.
- **Method:** Employees were categorized into age groups (e.g., 20-29, 30-39) to identify which age brackets have higher or lower employee counts.
- **Insight:** This helps in understanding the age demographics of the workforce and may reveal age groups with higher attrition rates.

2. Average Income Per Age:

- **Objective:** To determine how income varies with age among employees.
- **Method:** The average income was calculated for each age, providing a clear picture of income distribution as employees age.
- **Insight:** This analysis can help identify any income disparities across different ages, which could be a factor influencing employee satisfaction and retention.

3. Employee Count by Income:

- **Objective:** To analyze the distribution of employees across different income levels.
- **Method:** Employees were grouped into income ranges (e.g., 0-29k, 30k-59k) to visualize the distribution.
- **Insight:** Understanding the distribution of income can help in identifying whether income plays a role in employee attrition, especially if certain income brackets show higher turnover.

4. Attrition Rate:

- **Objective:** To calculate and visualize the overall attrition rate within the company.
- **Method:** The attrition rate was determined by the percentage of employees who have left the company, compared to the total workforce.
- **Insight:** This provides a clear measure of the attrition trend and can highlight the need for further investigation into why employees are leaving.

5. Employee Count by Years Worked:

- **Objective:** To examine the relationship between the number of years an employee has worked at the company and their likelihood of leaving.
- **Method:** The number of employees was tallied according to their tenure (years worked), revealing patterns of attrition relative to the length of service.
- **Insight:** Identifying tenure-related attrition trends can guide HR in developing targeted retention strategies for employees at different stages of their careers.

Tools and Techniques Used

- **Data Analysis:** Python (pandas) was used to clean, manipulate, and analyze the dataset.
- **Visualization:** Tableau was utilized to create interactive dashboards that effectively communicate the findings.
- **Key Calculations:** Custom calculations were created in Tableau for metrics such as attrition rate, average income per age, and more.

Conclusion

The Green Destination Attrition Analysis project provided valuable insights into the factors contributing to employee attrition. By analyzing age, income, and years worked, the HR department can better understand the reasons behind employee turnover and implement strategies to improve retention. These findings will help Green Destination maintain a stable and motivated workforce, crucial for the company's long-term success.