Employee Attrition Data Analysis

Report

This report presents an analysis of employee attrition based on statistics and seen through the eyes of a junior business analyst working with the HR department.  A comprehensive use of dataset that includes a wide range of employee factors, such as attrition status, job characteristics, work satisfaction, and demographics with the goal to use Tableau to solve the following important problems that the HR team brought up:

Age Distribution: Do the employees who stay and the ones who leave have notably different age distributions?

Impact of Job position: Does an employee's choice to stay or quit depend on the kind of job position they have?

Monthly Income and Attrition: Is there a connection between a worker's monthly pay and their chance of quitting their job?

Important Attrition elements: Is it possible to pinpoint at least four important elements that influence employee attrition?

This report seeks to give the HR staff practical insights to create employee retention strategies that work and to create a more engaged workforce through smart visuals and data analysis.

Age Distribution based on Employee Attrition

A graph of a graph

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The graph suggests a significant correlation between employee age and attrition. Younger employees, particularly those between **20 and 35 years old**, appear to have a **higher propensity to leave the company** compared to their older counterparts. **The number of employees who stayed with the company steadily increases with age.**

Attrition rate by Job roles

**A graph of red and blue bars

AI-generated content may be incorrect.**

Figure 2 displays the attrition rate across different job roles. The job roles specified in the graph are:

* Healthcare Representative
* Human Resource
* Laboratory Technician
* Manager
* Manufacturing Director
* Research Director
* Research Scientist
* Sales Executive
* Sales Representative

A graph of blue bars

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After filtering the attrition to yes, we can see that **Laboratory technician, research scientist, sales executives and sales representative, display higher rate of attrition compared to the rest of the job roles**.

Similarly, when we filter the attrition to no, we can see that **a higher number of sales executive and research scientists have stayed in the company.**

A graph of red rectangular bars

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Interactive Dashboard

Four factors affecting the attrition rate in the company are:

1. Job satisfaction of the Employees
2. Income of the Employees
3. Salary Hike of Employees
4. Training times last year of the Employees

These factors are shown in figure \_ in the form an interactive dashboard created on Tableau.

A screenshot of a graph

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1. Job Satisfaction

In a general overview, some employees that are least satisfied left the company as shown in the Figure. While most employees that are least satisfied continued with the same company. As satisfaction increases more employees stayed with the company. The age filter is also displayed to show the different age range of employees that are satisfied with their job regarding the attrition rate.

1. Income of Employees

The second factor that affects the attrition of employees is the earning income. To understand which income group has the stayed or left the company, two bar charts are used to show the distribution of every income group and their attrition rate.

With the help of a bar chart, the company can compare different income groups to understand how income can play an affect on the employees leaving or staying at the company.

Employees that are earning $2000-$2999 have the highest attrition amongst other income groups. Meanwhile in the ‘No’ attrition bar chart, employees that earn from $3000-$4999 are most likely to stay in the company along with people earning from $2000-$2999 and from $10000-$12000 a month.

1. Salary Hike of Employees

The third factor that influences the attrition of employees is the salary hike of employees in the company. In Figure \_, a histogram is used to represent the data of employees who received a salary boost in percentage.

A histogram has been selected for this data because it shows the frequency of distribution of one variable which is the salary hike percent.

Salary Hike percent is plotted on the X-axis while the number of employees is plotted on the Y-axis. As seen in Figure \_, employees that left the company received a salary hike of 13%-14%, however most employees that stayed with the company also received a salary hike of 13%-14%.

Employees that received a hike of 22%-26% are least likely to leave the company as demonstrated on the with the color blue.

1. Training Times Last Year

The last factor that affects employee attrition is the training times last year. The Figure, shows a line graph where the X-axis represents the training times last year while the Y-axis represents the employee count. The attrition rate is split into two colors where red displays no and blue displays yes.

The line graph has been selected because a trend line can be recognized, and the X-axis has a numerical value and not a categorical variable.

Majority of employees that left the company trained 2-3 times last year. Employees that trained more than 4 times, however, had a lower rate of attrition.

Most of the employees that stayed in the company also trained 2-3 but only 62 employees that trained only once stayed with the company.