Executive Summary

Salifort Motors

Analysis of Employee Turnover By Michael Eirikson

Overview

Salifort Motors wants to understand what are the factors that lead to employee turnover. The two project goals are to 1) draw insights from the data to understand causes of employee turnover 2) deliver a model to predict if an employee is likely to leave.

Project Status

- Data has been analysed and many key insights have been uncovered
- Predictive model has been created
 - Model overall test accuracy is 98%
 - Of all employees in the test dataset who have left, the model correctly predicted 92% of them
 - Of all employees the model predicted to leave, 99% of them did leave.

Next Steps

If quit/fired status can be provided:

- Analyse data to determine the specific factors that lead to these two types of leaving
- Create model to predict quit, fired and stayed

If detailed employee salary information can be provided and an estimated cost of employee turnover can be calculated:

 Determine optimum amount of raises to increases employee retention and reduces overall cost for salaries and turnover combined

Key Insights

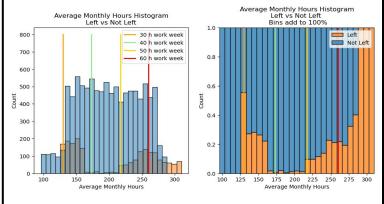
- 3 or 4 projects per employee is ideal, more or less tends to increase turnover
- In general the workforce is working well above 40h/week. Keeping employees between 37h/week and 50h/week, more or less tends to increase turnover.
- A review of employee salaries and potential for promotion should be done annually.
 Particularly for employees who have been with the company for 3-6 years. Employees tend to leave at this time particularly if they are paid less and have not been promoted.
- Base employee evaluations on metrics that capture the value the employee create. Do not use the number of hours as an evaluation metric. Employees who are pushed to work long hours tend to leave.



Data Analysis Summary

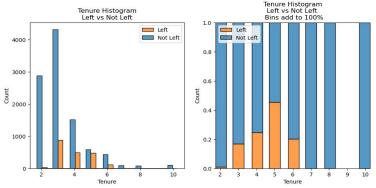
Three or four projects is ideal. The figure on the right shows the normalized number of employees leaving by project number. Three is best and four keeps the number of employees below 10%

Average Monthly Number of Hours

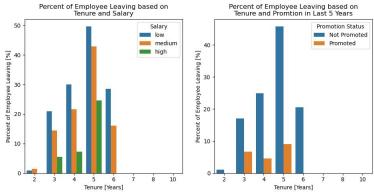


Above 50h/week and below 37h/week tends to lead to increased employee turnover. In general this workforce tend to work far more than 40h/week. There may be a culture issue in this company with regards to work life balance.

Tenure, Salary, and Promotions



Most employees tend to leave between three and six years.



The percentage of employees who leave drops significantly with both increases in salary and promotions. Depending on the cost of employee turnover and the specific salaries of employees, it is possible that it is more cost effective to give more raises. Further data is needed for that analysis.

Average Monthly Hours and Evaluation Scores

For the general workforce evaluations scores and average monthly hours worked are not correlated. However, among those employees who have left, these two factors are highly correlated. This suggest that these employees feel pressure to work longer hours which then is a factor in them leaving. This likely is a major factor in any culture issue regards work life balance.

