

Salifort Motors

Employee Retention Project

ISSUE / PROBLEM

Salifort Motors seeks to improve employee retention and answer the following question:

What's likely to make the employee leave the company?

RESPONSE

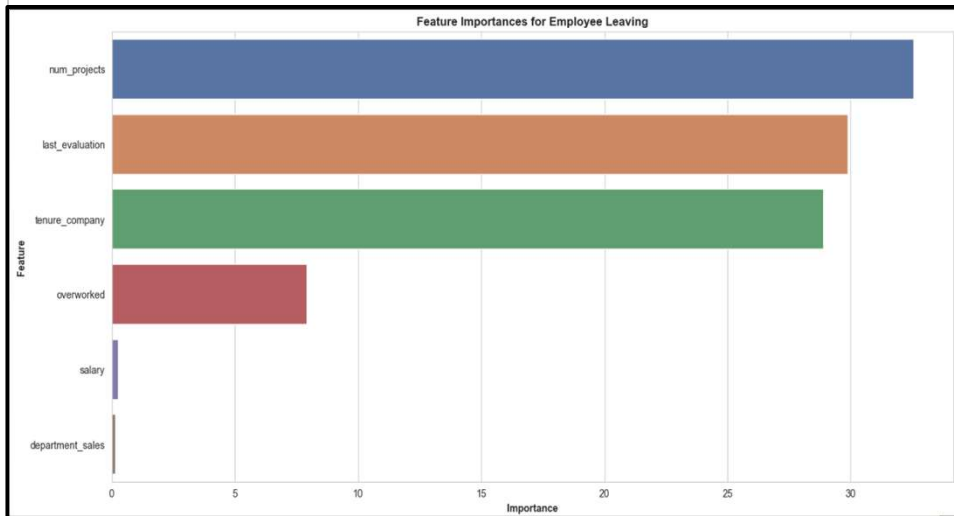
Since the variable we are seeking to predict is categorical, we can build either a logistic regression or a tree-based machine learning model.

The random forest model outperforms the decision tree model as expected.

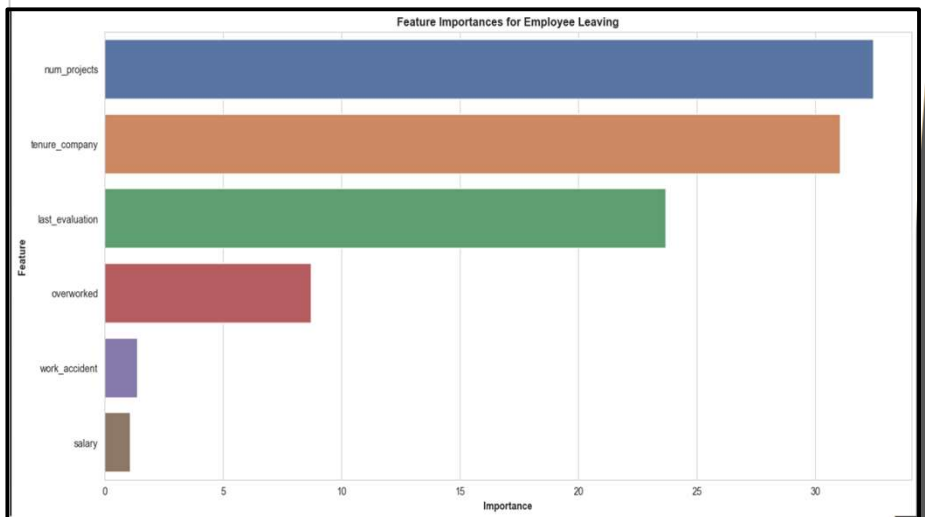
IMPACT

This model helps predict whether an employee will leave and identify which factors are most influential.

These insights can help HR team make decisions to improve the employee retention.



Bar plot above shows the most relevant variables: number of projects, last evaluation, employee tenure, and whether the employee is overworked.



In the random forest model above, number of projects, employee tenure, last evaluation, whether the employee is overworked, work accident and salary have the highest importance. These variables are most effective in predicting the outcome variable 'employee_left'.

KEY INSIGHTS

- Cap the number of projects that employees can work on.
- Consider promoting employees who have been with the company for at least four years or conduct further investigation about why four-year tenured employees are so dissatisfied.
- Either reward employees for working longer hours, or don't require them to do so.
- If employees aren't familiar with the company's overtime pay policies, inform them about this. If the expectations around workload and time off aren't explicit, make them clear.
- Hold company-wide and within-team discussions to understand and address the company work culture, across the board and in specific contexts.
- High evaluation scores should not be reserved for employees who work 200+ hours per month. Consider a proportionate scale for rewarding employees who contribute more/put in more effort.