



SALIFORT
MOTORS

2023 Employee Retention Project

ISSUE / PROBLEM

Salifort Motors is facing a significant challenge with a high turnover rate among its workforce. This issue not only impacts the company's productivity but also incurs additional costs associated with recruiting and training new employees. The key problem is identifying the underlying causes of employee dissatisfaction leading to this turnover.



"Analyze the survey data and come up with ideas for how to increase employee retention.."

Lora Gibbs, Leadership Team

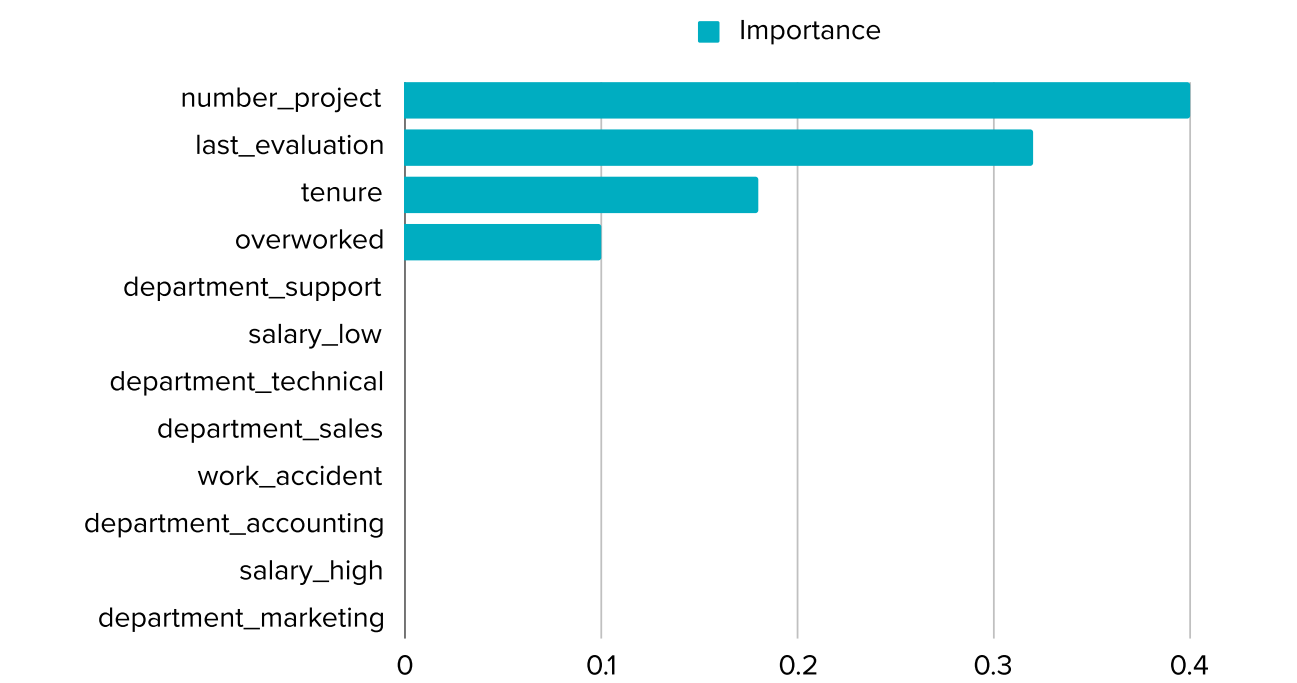
RESPONSE

To address this, we conducted an analytical study using data from a recent employee survey, covering aspects such as job satisfaction, performance, workload, and tenure. Our team applied various predictive modeling techniques, including logistic regression, decision trees, random forest, and XGBoost models, to determine the likelihood of employees leaving the company.

IMPACT

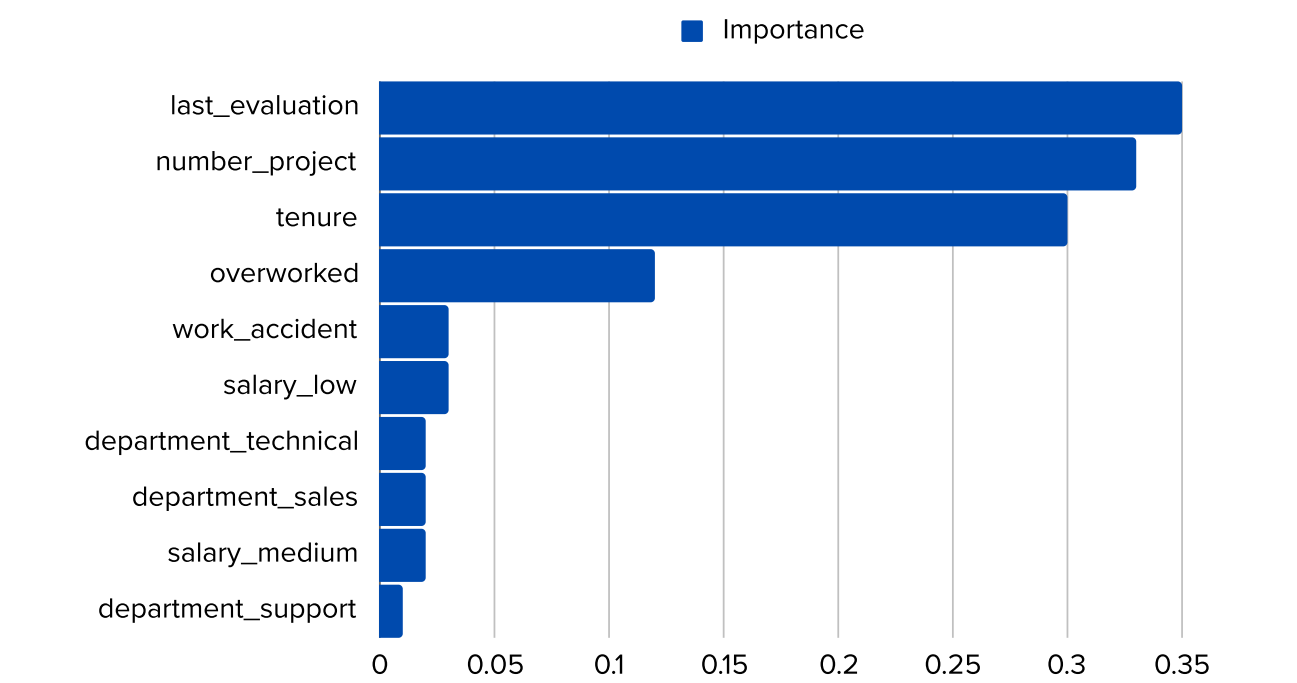
The random forest model displayed the most promising results, with an accuracy of 85% and precision of 83%. It identified critical factors influencing employee turnover, such as low job satisfaction, high workload, and longer tenure without promotions. These insights enable Salifort Motors to target specific areas for improvement in employee management and retention strategies.

Decision Tree: Feature Importance for Employee Leaving



Barplot above shows the most relevant variables: 'last_evaluation', 'number_project', 'tenure' and 'overworked'.

Random Forest: Feature Importance for Employee Leaving



In the random forest model above, 'last_evaluation', 'tenure', 'number_project', 'overworked', 'salary_low', and 'work_accident' have the highest importance. These variables are most helpful in predicting the outcome variable, 'left'

INSIGHT/NEXT STEP

Based on the analysis, we recommend:

1. Implementing employee engagement and wellness programs to boost job satisfaction.
2. Regularly reviewing and adjusting workloads and project assignments.
3. Developing career progression plans, especially for long-tenured employees.

For further enhancement of employee retention strategies, we propose:

- Continuous monitoring and updating of the predictive model with new employee data.
- Further exploration into department-specific turnover trends.
- Establishing a feedback loop where employees can regularly express their concerns and suggestions.

CONCLUSION

This study provides Salifort Motors with a data-driven approach to understand and mitigate employee turnover. By proactively addressing the factors leading to employee departures, the company can create a more stable, productive, and motivated workforce, ensuring its continued success in the competitive alternative energy vehicle market.

