

Predicting Employee Turnover at Salifort Motors

A Data-Driven Approach to Retention and Cost Reduction

Executive summary report by Seungsoon Park

Project Overview

Analyzing employee turnover at Salifort Motors using Python for model building and data analysis. The company is experiencing high turnover rates, and leadership wants to understand the key drivers behind employee departures to improve retention and reduce costs.

Details

Key Insights

1. Promotion is an important feature to reduce turnover rate. Turnover rate of promoted employees is 5.96% and others is 24.2%.
2. The company has low promotion rate like 2.13%
3. Employees with longer work years and no promotion have a low satisfaction to evaluation ratio with 0.05 significant level

Number of promoted employees : 319
Promotion_rate : 2.13 %

Turnover rate of employees with promotion : 5.96%

Turnover rate of employees without promotion : 24.2%

average of sat/eval without promotion and less than 1 of year_spent_ratio : 1.0
average of sat/eval without promotion and more than 1 of year_spent_ratio : 0.72
P Value : 6.84741923953737e-171
reject the null hypothesis and means of two groups are significantly different.

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Next Steps

Increase promotion rate of company. Promoting employees who worked longer period is recommended. Training employees for promotion will bring multiple impacts on increasing satisfaction level by promotion and balancing sat/eval ratio around 1.