

Predicting Employee Turnover at Salifort Motors

A Data-Driven Approach to Retention and Cost Reduction

Executive summary report by Seungsoon Park

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.

Problem

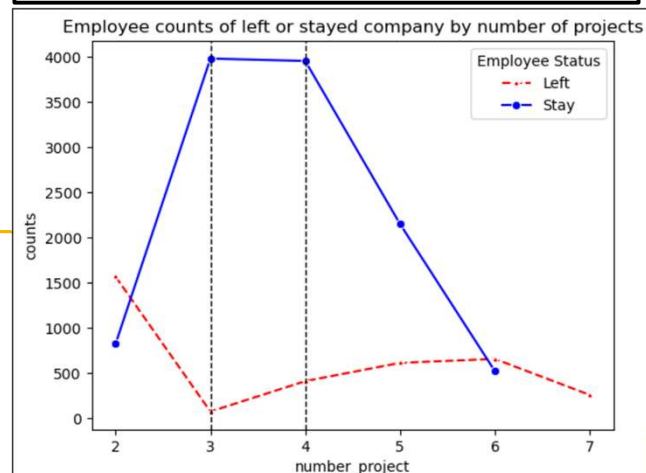
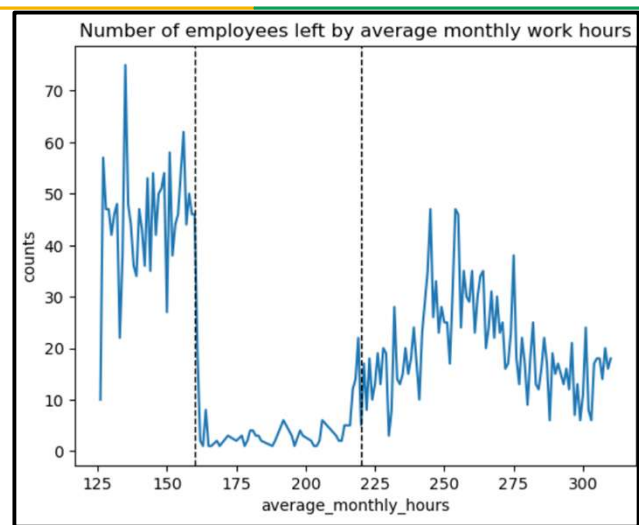
Employees without optimized project number and average monthly work hours have high turnover rate 78%.

Solution

Balance project distribution and work hours to reduce turnover at Salifort Motors. Shift excess projects from overloaded employees to those with fewer, and offer more work to those averaging under 160 hours monthly. Keeping workloads at **3–4 projects** and **160–220 hours** improves retention.

Details

1. There is a significant difference (99.9 % confidence level) of turnover rate between employees with and without optimized workload.
2. Employees with optimized workload has 22% of turnover rate
3. Employees without optimized workload has 78% of turnover rate



Next Steps

I will analyze compensation impacts, safety impacts and work satisfaction impacts. This will provide insights to guide retention strategies and optimize workforce allocation.