

A/B Experiment Report: Effects of Introducing One Work-from-Home Day

Objective of the Experiment

The goal of this experiment was to examine whether introducing one work-from-home day per week has an effect on:

- employee performance ratings (as assessed by managers)
- job satisfaction (employee self-assessment)

Methodology

The experiment included 40 employees, divided into two groups of 20 each:

- Control group: working exclusively on-site
- Experimental group: working from home one day per week (hybrid)

Employees in both groups were carefully matched based on department, gender, age, tenure, salary, hierarchical level, and education level.

The experiment lasted for 2 months.

At the end of the period, data on performance ratings and job satisfaction were collected.

An independent t-test was used for statistical analysis, with prior checks for normality (Shapiro-Wilk) and equality of variance (Levene).

Hypotheses

For performance ratings:

- Null hypothesis (H_0): There is no difference in performance ratings between employees who work exclusively on-site and those who work one day per week from home.
- Alternative hypothesis (H_1): There is a difference in performance ratings between the two groups.

For job satisfaction:

- Null hypothesis (H_0): There is no difference in job satisfaction between employees from the two groups.
- Alternative hypothesis (H_1): There is a difference in job satisfaction between the groups.

Results: Performance Ratings

On-site avg: 7.20

Hybrid avg: 7.92

T-statistic: -2.253

P-value: 0.0301

Shapiro-Wilk p (on-site): 0.0073

Shapiro-Wilk p (hybrid): 0.0554

Levene's test p: 0.8965

Cohen's d: 0.71

Conclusion: There is a statistically significant difference in performance ratings in favor of the hybrid group. The effect is moderate.

Results: Employee Satisfaction

On-site avg satisfaction: 7.69

Hybrid avg satisfaction: 8.40

T-statistic: -2.075

P-value: 0.0448

Shapiro-Wilk p (on-site): 0.0602

Shapiro-Wilk p (hybrid): 0.1508

Levene's test p: 0.9364

Cohen's d: 0.66

Conclusion: There is a statistically significant difference in employee satisfaction in favor of the hybrid group. The effect is moderate.

Insights and Recommendations

The hybrid model (1 work-from-home day) led to both higher performance ratings and greater job satisfaction.

Given that the groups were carefully balanced, the difference most likely stems from the change in work mode.

Recommendation: Consider implementing hybrid work as a permanent benefit for employees.