

Factors Impacting Employee Satisfaction

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0.1 Introduction

0.2 The Data Set

1 Dataset Description

This dataset described the employees of IBM, providing a total of 1470 observations (employees) and 35 variables (information about the employee). The variables can be divided into three groups: Personal Information, Job Information, Satisfaction to the Job in Total.

Table 1: Personal Information

Variable	Description
Age	The Employee's age
DistanceFromHome	The distance from home to work
Education	Level of education (1 'Below College', 2 'College', 3 'Bachelor', 4 'Master', 5 'Doctor')
EducationField	The subject of the employee's education (Human Resources, Life Sciences, Marketing, Medical, O
Gender	Gender of this employee
MaritalStatus	Marital status of this employee (Divorced, Married, Single)
NumCompaniesWorked	The number of companies this employee has worked
TotalWorkingYears	Total number of years this employee has worked since graduation

Table 2: Job Information

Variable	Description
Attrition	If this employee left the company
BusinessTravel	The frequency of business travel
DailyRate	sth

Variable	Description
Department	The department of this employee (Human Resource, Research & Development and Sales)
HourlyRate	sth
JobInvolvement	1 'Low', 2 'Medium', 3 'High', 4 'Very High'
JobLevel	The level of this employee's job
JobRole	The position of this employee (Sales Executive, Research Scientist, Laboratory Technician, Manager)
MonthlyIncome	The salary of this employee
MonthlyRate	sth
OverTime	If this employee works over time (Yes, No)
PercentSalaryHike	The percentage of salary hike
PerformanceRating	1 'Low', 2 'Good', 3 'Excellent', 4 'Outstanding'
StockOptionLevel	The amount of stock this employee process
TrainingTimesLastYear	The length of training the employee took last year
YearsAtCompany	The number of years this employee has been in the company
YearsInCurrentRole	The number of years this employee has been in this position
YearsSinceLastPromotion	The number of years since last promotion
YearsWithCurrManager	The number of years this employee has been with current manager

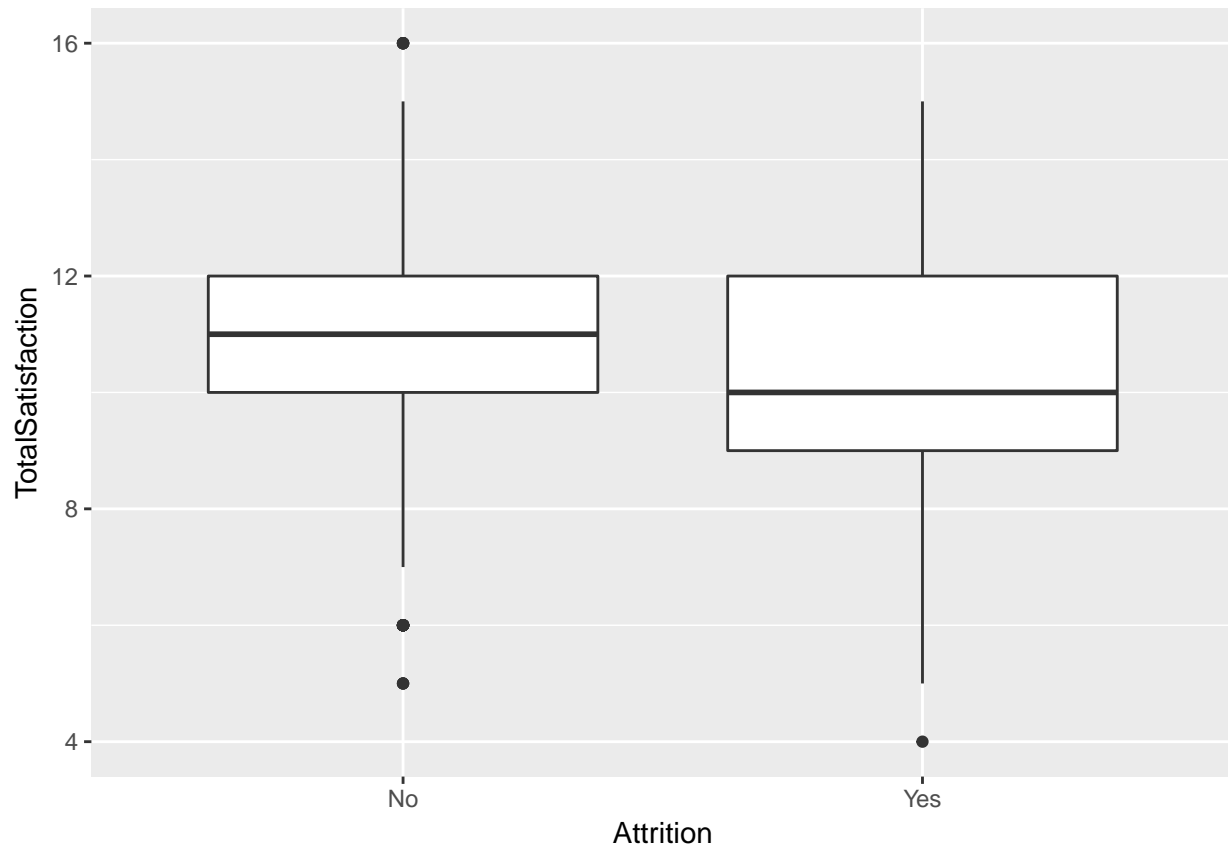
Table 3: Satisfaction to the Job in Total

Variable	Description
EnvironmentSatisfaction	Satisfaction to the environment (1 'Low', 2 'Medium', 3 'High', 4 'Very High')
JobSatisfaction	Satisfaction to the job (1 'Low', 2 'Medium', 3 'High', 4 'Very High')
RelationshipSatisfaction	Satisfaction to the relationship (1 'Low', 2 'Medium', 3 'High', 4 'Very High')
WorkLifeBalance	The work life balance rate (1 'Bad', 2 'Good', 3 'Better', 4 'Best')
# The relationship between	Attrition and Total Satisfaction

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##   filter, lag

## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
```



We can see from the boxplot that there is a relationship between Attrition and Total Satisfaction. Employees who left the company in the end has a lower average total satisfaction and those who stay in the company are more satisfied with their company. So we can say that by predicting the employee's total satisfaction, we can know whether he is going to leave this company or not.

2 Hypothesis

3 Method

4 Analysis

5 Conclusion

Test 5 - Git Hub App