

Date: 18th November, 2021
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DATE SUBJECT: IBM HR Analytics Employee Attrition and performance (EDA Project proposal)

Overview

Nowadays networking and making professional connection with the most skilled employees can be as easy as it has never been before. Ignoring some basic desires for talented employees, can lead them to leave their job for other competitors in the same market. Unfortunately, keeping these employees quiet is a recipe for losing the very people you are most interested in retaining. This is significant problem which can cause the company lose thousands of market value. The information in this proposal for the database will discuss how the **problem** has developed (including five specific problems), and present a possible **solution**.

Background/Problems

There are many factors that affect employee's decision. Data scientists at IBM created a fictional data to uncover the most relevant factors that lead to employee attrition. The fictional data included factors such as education level, job involvement, job satisfaction, performance rating, relationship satisfaction and work life balance. The data contains 1470 entries and data 35 columns.

The questions that will be examined are:

- Q1) What is the most impacted field of education by attrition?
- Q2) What is the consequence of last promotion on the number of attritions?
- Q3) What is the relationship between the age and attrition?
- Q4) What is the relationship between gender and attrition?
- Q5) How job role in the company effect attrition?
- Q6) How distance from home effect attrition?
- Q7) Compare average monthly income by education and attrition

Solution

I would like to present one possible solution to the problems mentioned above. This solution focuses on the most relevant factor for why employees leaving the company include:

- Providing the IBM HR with accurate analysis of the most relevant variables which have a direct effect on the number employees leaving
- Using the tools and libraries that we have learned in previous weeks
 - Jupyter (Python, Pandas, NumPy, Matplotlib, Seaborn)

The problems and solution mentioned above will be supported with the graphical analysis. Following this solution companies can keep their most talented employees and get a head of their competitors

Source page

Pavansubhash, "IBM HR Analytics Employee Attrition & Performance." *Kaggle*, 31 Mar. 2017, <https://www.kaggle.com/pavansubhasht/ibm-hr-analytics-attrition-dataset>.

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