HR ANALYTICS CASE STUDY

The case is based on a dataset distributed through Kaggle.com (Choudhary and Kumar, 2018)

BACKGROUND

You were recently appointed as an HR Manager of a large manufacturing company. Today is your first top management meeting. After a brief meet and greet, the initial discussion quickly turns into one of the problems the company is facing – high fluctuation of employees. You understand that this may be the breaking point for your future career in the company. Solutions to such kind of problems usually take months or years to implement, so you have to do your first steps soon. You understand that the CEO will protect you for some time as a freshman, yet soon he will demand a strategy to tackle the problem.

NEED TO UNDERSTAND THE SITUATION

As you gather your first data, you realize how grave the situation is. You feel an urgent need to act but you resist it. No, the fluctuation problem will require bold steps to solve and they must be backed by an in-depth analysis. In the end, it is likely that you will face internal resistance to implement some of them. And without evidence to back-up your proposals, you may quickly succumb to arguments of other – much more seasoned – managers.

Currently, the company has around 4000 employees. However, year by year, around 15% of its employees leave the company. This is much higher rate than is common in the industry and it creates various issues.

You think of how to approach the analysis. Luckily, your predecessor gathered some data that can be used. You have your experience and access to a university library where you can gather scholar insights. Finally, you may and will approach all the key stakeholders in the issue – managers and employees – to collect their insights.

Questions to answer:

- ❖ What are the negative consequences of employee fluctuation?
- ❖ What are the positive consequences of employee fluctuation?
- ❖ What is evidence-based management and what sources of data it uses?
- ❖ Do you have a personal experience with fluctuation (your own or your past colleagues)? What were the causes?

ANALYSIS OF THE SITUATION

You know that it is important to understand the big picture first. If you hunt for results using gathered data, you may miss some important factors. At the end of the day, gathered data contain only what you ask for. Similarly, interviewing stakeholders may draw you away to their personal accounts. For these reasons, your first steps lead to the university library. There you scan through HR Management books and you also tap into journal archives in a search for general reasons for employee fluctuation.

Questions to answer (using the literature):

- ❖ What are the major factors causing employee fluctuation?
- ❖ How these factors can be grouped? Why is it important to do so?

After reviewing the literature, you feel that you have a good understanding of what can cause a fluctuation in general. Nevertheless, you know that not all these factors will take place in your company. Now it is time to dig deeper into the data from your predecessor in order to understand potential issues. Fortunately, your predecessor had a good command of statistical analysis, so he prepared you a ready-to-analyze dataset. Let's familiarize with it.

Tasks to do (work only with general_data.csv, employee_survey_data.csv, and manager_survey_data.csv):

- ❖ Check the variables and understand what kind of data they contain.
- ❖ Screen the available data. First, visualize the individual variables. Second, check descriptive statistics. Third, check a correlation table.
- ❖ Formulate your fluctuation model: What variables in the dataset are the most likely to influence fluctuation? Formulate hypotheses on how (positively or negatively) they will impact fluctuation.
- ❖ Run a logistic regression of your model and comment on the results.

Your initial assumptions have been partially right. You expected some factors to be highly impactful and they turned out to be. On the other hand, some of the causes do not play a role in the end. It is possible that the company may not have problems in these areas. You will probably check out some other hypotheses but mainly go for first-hand accounts of the people inside the company. Plus, you will try to tap some of those that left…

REFERENCES

Chounhary, V., & Kumar, A. (2018). HR Analytics Case Study: Employee Attrition Analysis (Logistic Regression Model). *Kaggle.com*. Accessed Nov 29th, 2019. URL: https://www.kaggle.com/vjchoudhary7/hr-analytics-case-study