Introduction/Business Problem

Introduction

I have selected a real-life business problem for the submission of the Capstone project.

During the project I was using many of the tools and techniques that I have learnt during the last few weeks of the Applied Data Science course.

I worked with my company's real data that I have developed to propose a possible solution for a monthly mobile telecommunication allowance to the employees based on historical reimbursements.

The main idea is to assign people into groups, which will define the amount of the allowance and based on that managers do not have to approve every single item on the mobile phone bills. Separate approval is only required if someone is spending above the allowance for business purposes (personal usage cannot be reimbursed).

This approach can save time and money since people will try to fit within the approved packages and managers does not have to spend a lot of time to review their employees' mobile expense claims.

Business Problem

During one of the usual management meetings we were discussing the cost / expense structure of our operations.

The team wanted to change certain aspects of the company's compensation packages for employees / managers in line with the forecasted top line revenue and profit plan for 2019.

As part of the discussion we were debating on a fair amount that could be reimbursed by employees related to their usage of mobile telecommunication (voice and data) services on a monthly basis without prior approval.

After we covered a lot of ideas and opinions we have decided to use the data from the expense claim system and analyze the current situation as the first step.

We all agreed that this approach will help to better understand:

- How much the company pays per month for mobile telecommunication?
- Is there any trend related to the overall expenditure driven by the season?
- Which departments are the lowest and highest contributors?
- What is the average spend by department, is there any outlier?
- What is the typical amount spend by managers and practitioners (practitioners are the ones whose cost is charged to our Clients)?
- How we can group our employees based on their mobile expenditure?
- What would be a fair monthly allowance to these groups based on their current spending behavior?

Since I quickly realized that this is a segmentation problem and I have just learned about this recently on Coursera I volunteered to work together with our operations team and analyze the data.