

TASK REPORT
DATA SCIENCE AND ITS IMPLEMENTATION IN
BISUNESS



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Chapter 1

Introduction

Business is either your occupation, profession, or trade, or is a commercial activity which involves providing goods or services in exchange for profits. From business we get a lot of data such as transaction, customer behavior, individual data, and soon. As an ordinary people who do not really understand about technology, maybe they don't know the function of the historical data and they do not aware with it. But in business, we can process that data to get the user behavior (insight) where it can be used to increase our business profit. Unfortunately not everyone can do this task, maybe we can use data consultant service to try analysis our data and get what the specific goal for the future. That's why data analyst and data scientist are needed these day.

As a data analyst or scientist we need to know how to create a proposal to explain to the customer about how our solution fits with their data. It will make the client believe with the approach that we have already offered. Based on these problem, I will give you an example of business proposal that usually used by data analyst or scientist start from identify the problems.

Chapter 2

Progress Report

In this chapter you will have to fill in the table below according to the progress of the project that you have made along the way. We need to know how long it takes for you and how big the effort that you have done in order to complete this task. We appreciate detailed information.

Day/Date	Task	Level (easy/medium/hard)	Comments
31/08/2020	Doing Business quizzes and read the material about business in iykra's website	Easy	There are a lot of subject that need to understand.
01/09/2020	Make a business proposal	Hard	There are a lot of new subjects in this steps that I need to understand.
02/09/2020	Make a report	Medium	Keep fight.

Chapter 3

Task Report

In this report, I have landed a great job with McJager Consulting (MJC), managing an analytical team that have just built up its data science skill set. MJC is proposing a data science project with Telcozee, the nation's largest provider of wireless communication services, to help address their problem of sleeping customers. I need reviewing my team proposal proposed plan to Telcozee. Then mention at least 5 flaws and 5 improvement from that proposal, just access the problem on the link below.

<https://iykra.com/mod/assign/view.php?id=2553> , and this is the result.

Flaws from the plan:

1. There is not clear explanation about how the algorithm works, what steps will be carried out by the algorithm to be built (maybe we can add with flowchart or illustration) and what about the timeline. With the clear explanation, it will make our client believe to our approach.
2. Telcozee is national's larger provider and it has large number of customer data. Random Forest classifier is not suitable for this case, because this model cannot work well and also very slow for the large-scale of data.
3. The model will be built on a database of historical cases of customers who have left the company. We have to know to build a good model we also need the active customer and customer who renew the contract on the grace period.
4. The V.P. and the experts access to the model, so that they can verify that it will operate effectively and appropriately. Maybe we cannot do this in our project, generally our client just see the product result or they can access the beta version of our product.
5. The model will be run in every month (once a month), it's little irrelevant because there is a possibility that the customer's expired contracts will more than 45 days.
6. Only top N customer will be selected to receive the current intensive. This statement too ambiguous, we need to specify what this sentence means.

Improvement For the plan:

1. By explaining the steps how the model works start from load the dataset, preprocessing, build a model, evaluation and deploy the model into website. And then equipped with clear timeline, it will make them (Telcozee's team) easy to understand the proposal plan.

2. We can use neural network algorithm (deep learning) to process this data. The reason is most of deep learning algorithm can produce high accuracy in a large-scale of data, and fast in build a model. If we already clean the data in the first steps and also implement the feature selection. It can be faster. It will be much faster and the accuracy will also be higher.
3. Add the data sets with active customer and customer who renew their contact on the grace period data. This data will give good insight for the model about the customer behavior. Try to use a balance data for sleep customer and not to prevent overfitting.
4. We will give an access to the V.P and their expert to our beta website to see our model accuracy and how well it was. So it's like a dashboard website with some graph, chart and some calculation parameters. Not our model, because it is rows of code, and maybe they do not understand with it.
5. We can run the model as fast as possible, maybe in every night (00.01, this time often used by companies in updating their data) to get the realtime data. If it is too fast try once in a week, once in two week, etc. The faster we run our models, the better data we have.
6. We can add more specific method to get the N number of customer who will receive the current intensive. Maybe we can applying the churn customer data with Customer Segmentation approach (KNN or other) to get the loyal customer, than take 50% data with high loyalty level.

Conclusion

Proposal is the key step to offer our idea of giving solution for the business problems to the client (company). Make it as creative as you can and please to be detail, because it can make our client easy to understand the goals and believe to our approach. In your proposal at least you give the project summary, technical approach, data sets, experiment & evaluation, software to be used, timeline and budgeting.