Identifying the business opportunity: Through the eyes of our Working Example

Our Story

The first stage of any project in a large enterprise is to identify the business opportunity. In the world of design thinking, this begins with the *Empathize* stage. During this time, you and your team are gathering as much information as possible to understand the challenges faced by your AAVAIL.

You are suprised by the fact that you, a data scientist, are being asked to help out with interviews, observations, process mapping, and various design thinking sessions. These techniques as well as many others are used during the empathize stage to gather as much information as possible so that a problem may be defined.

As a data scientist, this process should be used to guide your investigative process. Ultimately, your top priority is to analyze the data coming out of Singapore, understand the problem and fix the situation. The involved parties are subscribers, data engineers, data scientists, marketing and management. You are going to need to talk everyone involved in the data generation process. This is why you're spending time on interviews and observations.

Asking questions is a critical part of getting the process started. You will want to be naturally curious gathering details about the product, the subscriber, and the interaction between the two. This information gathering stage provides both a perspective on the situation and it will help you formulate the business question.

In the short sections below, we provide guidelines for asking questions and beginning with an investigative mindset.

Articulate the business question

There are generally many business questions that can be derived from a given situation. It is an important thought exercise to enumerate the possible questions, that way it makes the discussion easier when you work with the involved stakeholders in order to focus and prioritize. In this situation here are some ways of articulating the business case.

- Can we use marketing to reduce the rate of churn?
- Can we salvage the Singapore market with new products?
- Are there factors outside of our influence that caused the situation in Singapore and is it temporary?
- Can we identify the underlying variables in Singapore that are related to churn and can we use the knowledge to remedy the situations?

The business problem in all of these examples is written shown in terms of the data we have.

NOTE: This case study can be approached in many different ways and there may not be a clear right or wrong. During the various modules of this course, we will provide guidance when there are multiple paths to choose from.

Prioritize

It is logical, but there is a need to prioritize If there are several distinct business objectives. In this case maybe one is related to reducing chrun directly and another is about profitability.

There are three major contributing factors when it comes to priority.

Stakeholder or domain expert opinion

In situations where considerable domain expertise is required to effectively prioritize (e.g. Physics, Medicine and Finance) prioritization will likely be driven by the people closest to the domain.

Feasibility

- Do we have the necessary data to address the business questions?
- Do we have clean enough data to address the business questions?
- Do we have the technology infrastructure to deploy a solution once the data are modeled?

Impact

When looking at Impact we're purely looking at expected dollar contribution and added value from a monetary perspective. When possible, calculating the back-of-the-envelope ROI is a crucial step that you can do. This is an expectation and not real ROI calculation, but it is a guiding principle nonetheless.

The ROI calculation should be an expected dollar value that you can generate based on all available information you currently have in your organization combined with any domain insight you can collect.

Measuring the back-of-the-envelope ROI calculation could make use of any of the following:

- Estimates for fully-loaded salaries of employees involved
- Cost per unit item and/or time required to produce
- Number of customers, clients, or users
- Revenue and more