The first step to the process of deciding whether to use machine learning is to get a clear picture of the businesses needs. This consists of reviewing the business situation, assessing the opportunity available and identifying the actions the business will take.

In order to clarify the business situation first we need to identify the right questions to ask. Start with the inference questions. These are the big picture motivation behind the analysis we are considering. Use these inference questions to define prediction questions. These questions narrow the scope of what we are trying to accomplish by defining it more clearly.

Next, we look at the business opportunity. What is the affect we are driving toward? How much will it cost to implement the machine learning and to take the actions? How do we know if we can affect the outcome? This is where AB tests and experiments come into the equation.

Finally, based on the results of our findings determine if it is worthwhile to move forward with the project. It does not make sense to scale up a costly project for a small payoff. If it doesn’t meet the criteria to move forward, further analysis should be done. Here we would work with the business to collect more data. Create causal models to understand what drives the issue. Collect more qualitative research and consider the questions being asked. Are the too wide or narrow?