

# Starbuck Project Proposal

August 21, 2021

## 1 Domain Background

The purpose of this project is to analyze from simulated Starbucks' customers data provided by Starbucks and Udacity, in order to gain insight on the relationship of the customers' attributes and their response to promotional offers being given to them.

Once in a while, Starbucks sends promotional offer to its mobile customers and the data gained from it are being used to simulate the dataset this project is based on.

From a business perspective, it is important to understand whether an offer is effective and how to personalize offers based on customers' attributes. This personalization could improve the efficacy of the promotional offer itself and might even increase the revenue, if more people are being attracted to buy based on that personalized offer.

Some research has been conducted using machine learning model to classify things based on marketing data. It is a good practice to learn from them before solving problems in the marketing area and using the marketing data. The followings are some of them: \* [https://www.researchgate.net/publication/282657577\\_Marketing\\_Research\\_Data\\_Classification\\_by\\_Means\\_of\\_Machine\\_Learning\\_Methods](https://www.researchgate.net/publication/282657577_Marketing_Research_Data_Classification_by_Means_of_Machine_Learning_Methods) \* [https://www.researchgate.net/publication/260707025\\_Using\\_Neural\\_Networks\\_for\\_Marketing\\_Research\\_Data\\_Classification](https://www.researchgate.net/publication/260707025_Using_Neural_Networks_for_Marketing_Research_Data_Classification)

Also, this project is a great fit for students of Data Science or Machine Learning to tinker on, since it would widen their experience on a different kind of dataset and also for them to engineer features that matter and algorithm that would perform best.

## 2 Problem Statement

Would a customer respond to a particular offer?

- The problem of this project would be a classification problem: there needs to be a classification of whether a promotional offer is going to make a customer responds or not.
- An approach to this problem would be to see if there could be a pattern emerged from customer's attributes and the promotional offer's data (duration, rewards, etc.) to determine whether a customer would respond to a promotional offer: customer's attributes and promotional offer's data to be the inputs and a binary classification of responding or not would be the output.

## 3 Datasets

There are three types of dataset provided in this project: