Lessons from a bank marketing campaign

Introduction

Creating a winning marketing campaign is intimidating. marketing campaigns are a business' efforts toward promoting a specific company goal. They reach customers through a combination of contact methods and entice customers to purchase. A marketing campaign has many different layers. Consists of design elements, and sales focus, like forms and email marketing strategies.

Deriving meaningful insights from previous marketing campaigns would be beneficial for companies. Indeed, they can find out which parameters could be critical to intrigue more customers or what type of people are more willing to accept their offers. Therefore, I used data from a bank marketing campaign of a Portuguese banking institution (archive.ics.uci.edu/ml/datasets/bank+marketing) to derive marketing insights.

The data includes information on 45211 customers along with the result of the bank marketing campaign, which was based on phone calls. Often, more than one contact with the same client was required, in order to access if the product (bank term deposit) would be ('yes') or not ('no') subscribed.

The dataset includes information about customers such as age, marital status, average yearly balance, level of education, and the status of the loan.

Data exploration

First, let's explore our data. From figure 1, the majority of clients were married. The next important variable is the job type of clients.
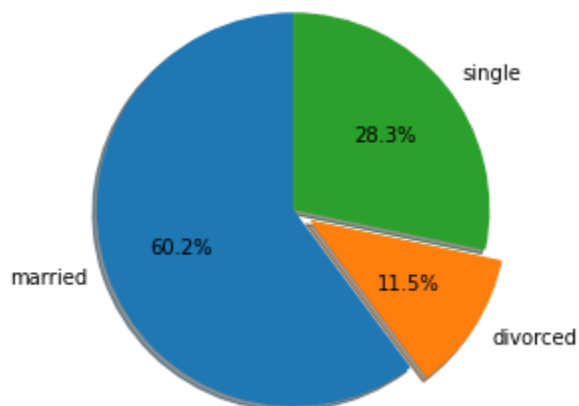

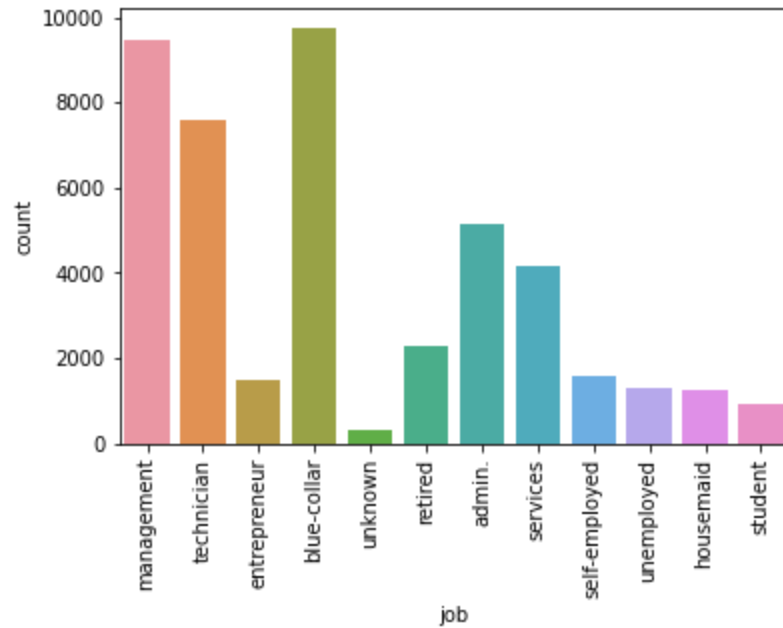
Figure1: Marital status of customers

Figure 2: job type of clients

In Figure 2, we can observe that a high number of our clients work in the management sector, or as technicians/workers. Thus, our data is well divided in terms of job type. The last variable, which is worth taking a look at is the level of education.
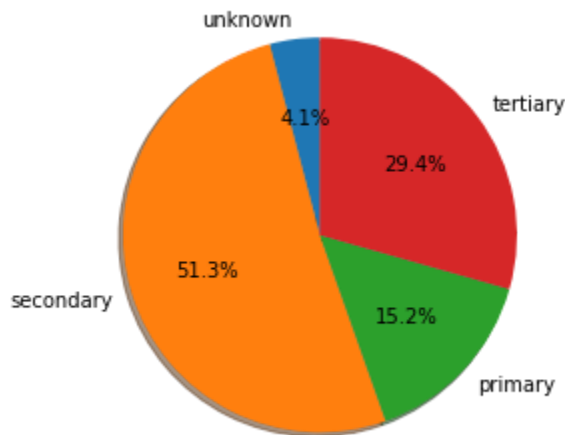

Figure 3. Level of education of customers

Figure 3 shows that only 30% of our clients have tertiary education. Next, we try to draw insights from the data by proposing three different questions.

Question 1: Do people with a higher average yearly balance are more willing to accept bank offers?

Here, I am interested in knowing that people whose average yearly balance is moderately high accept bank offers easier than other individuals?. To answer this question, I divided the customers into four different groups, i.e., negative, low, medium, and high average balance.

balance status	accept bank offer	reject bank offer
negative	210	488
low	1680	1967
medium	1698	1507
high	1409	914

Table 1

Table 1 shows that individuals with a high amount of balance are more willing to accept bank offers in comparison with customers with a lower balance. Hence, our target group in future campaigns could be customers with a high amount of balance.

Question 2: The level of education can affect the success rate of the campaign?

Now, I try to discover that are people with higher levels of education are more interested in the bank deposit program than customers with lower levels of education?

level of education	accept bank offer	reject bank offer
primary	591	847
secondary	2448	2765
tertiary	1996	1469

Table 2

Table 2 represents that 60% of the customers with tertiary education accepted the bank offer. However, only roughly 40% of customers with primary/secondary education said yes to the campaign. Thus, for future campaigns, we should focus more on people with higher levels of education.

Question 3: Are customers who have housing loans less interested in accepting bank offers?

It would be normal if one thinks that customers who have housing loans may be less interested in accepting the bank offer.

loan status	accept bank offer	reject bank offer
have loan	1935	3061
without loan	3325	2226

Table 3

Table 3 suggests that people who did have not any housing loans accepted the bank offer noticeably more than customers who had housing loans. Consequently, in future campaigns, we should focus more on customers who do not have any housing loans.

Conclusion

In this article, we took a look at how data from a bank marketing campaign can be used to derive business insights. The result can be used to increase the success rate of future marketing campaigns. The insights derived from the data suggest that:

1. *Focusing on customers with a high average yearly balance may increase the success rate of the marketing campaign.*
2. *It seems that customers with a high level of education are more willing to accept bank offers.*
3. *Having a housing loan may affect the success of future marketing campaigns negatively.*