

Memo:

In exercise 2, we made two data visualizations with scatter plots. We summarized our data firstly and used the “str” function to clarify the data frame, variable names, and sample observations. And then we create a scatter plot that demonstrates the relationship between clients saying no or yes to the bank products and the number of campaigns. According to the first graph, there is a huge amount of clients with the answer no because they are not willing to increase the deposit in a long term savings account. At the same time, a few people agree with the deposit in the long term savings account.

To be specific, there are only 0-5 campaigns for both clients saying no and yes, so the bank can focus more on people who only have 0-5 bank choices. The bank can focus relatively more on clients who have 6-25 choices of campaigns, since there is still competitive to convince those clients to choose their products, so if the bank is available to contact with clients when they finish chatting with people with 0-5 choices. For the rest of the range of campaigns, the bank can ignore people who have 27 to 50 choices, because there is no chance and most competitive.

The second graph shows the relationship between education and occupation with the sale conditions of bank products by using the scatter plot graph. In graph, the green plots means people who pay for the products finally and red means not. From the vertical perspective, the primary education degree accounts the most which included various occupations from student, self-employed and entrepreneurs (we could find some similarities between these three consumers that they are relatively freedom on the

control of money and their time are flexible than other jobs), follow on is unknown. Horizontally, students accounts highest part for both primary and tertiary. From this graph we can get a vague prediction that the target audience of bank products could try to concentrate on people with primary education. Also, for people with freelancers but who hold money in hand. There is a variate may also need to take into considering which is unknown on education and job. This data conveys a message which is the information collects from bank is not complete enough to support a clear outcome. Bank needs to take action on this part at least to document customer information as details as they can in the future. It will help more on analysis of customer behavior.