

Targeted Marketing

Marketing campaigns are organized, strategized efforts to promote a specific company goal or product. In today's modern society, marketing can reach consumers in a number of different ways including social media, apps and texts. However, the effectiveness of such campaigns depends on the ability of the campaign to reach interested individuals. Personalized marketing is the implementation of a marketing campaign by which companies deliver individualized products to recipients through data collection and analysis. In this analysis, you are to help a bank understand what customers are interested in their credit card so as to better target future marketing campaigns to interested individuals.

The dataset *TargetedMarketing.csv* contains information on a marketing campaign designed to get customers to open a new bank credit card account. The variables in the dataset are as follows:

1. age (numeric)
2. job: type of job (categorical: "admin.", "blue-collar", "entrepreneur", "housemaid", "management", "retired", "self-employed", "services", "student", "technician", "unemployed", "unknown")
3. marital : marital status (categorical: "divorced", "married", "single", "unknown"; note: "divorced" means divorced or widowed)
4. education (categorical: "basic.4y", "basic.6y", "basic.9y", "high.school", "illiterate", "professional.course", "university.degree", "unknown")
5. default: has credit in default? (categorical: "no", "yes", "unknown")
6. housing: has housing loan? (categorical: "no", "yes", "unknown")
7. loan: has personal loan? (categorical: "no", "yes", "unknown")
8. contact: contact communication type (categorical: "social", "direct")
9. month: last contact month of year (categorical: "jan", "feb", "mar", ..., "nov", "dec")
10. day_of_week: last contact day of the week (categorical: "mon", "tue", "wed", "thu", "fri")
11. campaign: number of contacts performed during this campaign and for this client (numeric, includes last contact)
12. pdays: number of days that passed by after the client was last contacted from a previous campaign (numeric; 999 means client was not previously contacted)
13. previous: number of contacts performed before this campaign and for this client (numeric)
14. poutcome: outcome of the previous marketing campaign (categorical: "failure", "nonexistent", "success")
15. y - has the client opened a new account? (binary: "yes", "no")

In your analysis, make sure you answer the following questions:

1. What characteristics of customers are more likely to take out a new credit card?
2. Is there evidence that social media vs. personal contact is more effective in marketing?
3. Does repeated contacting seem to increase the likelihood of a person taking out an account?

Audience: You are consulting for the marketing team. Papers should be addressed to the whole marketing team. In presentations, I'll act as the manager of the marketing team.