

LOGISTIC REGRESSION CASE

ACTIVE LEARNING

PREDICTING INSURANCE PURCHASE

BACKGROUND

Business Problem

In this competitive business environment, Insurance companies are adopting aggressive marketing strategies for new customer acquisition and existing customer retention. To adapt to the changing market landscape, an organization must monitor changes in buying patterns and behaviour of the customers based on various demographics, geographies & psychographics profile.

The analysis of existing customer's data can through many insights of the customer such as their buying behaviour, buying Pattern, brand loyalty, investment pattern & customer churn.

Such insight can be of great help to Marketing Head while devising new Marketing strategy. While embracing digital is integral to competing in the market, consumers still heavily rely on the human, one-on-one service that only agents are able to provide. Great customer service is foundational for all agents. Providing the ideal mix of technology solutions and personal interaction should be at the center of an agency's planning process as it prepares to meet customer demands and increase growth and retention.

NationWide Bank in the United States, besides usual services, this bank also provides car insurance services. The bank organizes regular campaigns to attract new clients. The bank has potential customers' data, and bank's employees call them for advertising available car insurance options.

At NationWide (<https://www.nationwide.com/>) the mission is to help people and businesses prosper. NationWide is always looking for ways to help our customers understand their financial health and identify which products and services might help them achieve their monetary goals. Their data science team is continually challenging our machine learning algorithms, working with the global data science community to make sure we can more accurately identify new ways to solve our most common challenge.

Can we help the Marketing head with some kind of technology solutions which can enable planning process as it prepares to meet customer demands and increase growth and retention? We are provided with general information about clients (age, job, etc.) as well as more specific information about the current insurance sell campaign (communication, last contact day) and previous campaigns (attributes like previous attempts, outcome). You have data about 4000 customers who were contacted during the last campaign and for whom the results of campaign (did the customer buy insurance or not) are known. Let us build machine learning model to help NationWide.

Task and Approach: The task is to predict for 1000 customers who were contacted during the current campaign, whether they will buy car insurance or not. We will be using logistic Regression to predict it

Create a presentation in form of a story explaining your analysis of the problem and your recommended solution.