

Redeem Coupon Prediction

Discount marketing and coupon usage are very widely used promotional techniques to attract new customers and to retain & reinforce loyalty of existing customers. The measurement of a consumer's propensity towards coupon usage and the prediction of the redemption behaviour are crucial parameters in assessing the effectiveness of a marketing campaign.

You have been hired as a data scientist in ABC consultancy. ABC's promotions are shared across various channels including email, notifications, etc. A number of these campaigns include coupon discounts that are offered for a specific product/range of products. The retailer would like the ability to predict whether customers redeem the coupons received across channels, which will enable the retailer's marketing team to accurately design coupon construct, and develop more precise and targeted marketing strategies.

As a data scientist,

1. Can you provide customer insights (by demographics, income, personal life, lifestyle etc.) and their propensity to redeem a coupon? Derive which factors come out as significant in identifying customer behaviour and how customers can be grouped based on their characteristics?
2. Can you build a machine learning algorithm which will predict the probability of coupon redemption of a customer? The customer may be new or an existing customer
3. Can you rank your customers based on their propensity to redeem and predict a class of customer whom should the company target first?
4. Can you find what type of coupons should be used more by the organization in the upcoming days and which coupons the company should discard?
5. Can you profile the products/items based on various characteristics like price, item category, propensity to be sold, discount percentage etc.?
6. Can you find insights related to customer behaviour and various campaigns? Basically which campaigns are more profitable?
7. Finally can you give a recommendation/strategy that would benefit the organization to have higher throughput in terms of coupon redemption resulting optimum profit? Should be presented in a summary which will be helpful to the company to increase their profits.