Customer Lifetime Value Prediction

Project Proposal

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Kaggle Dataset:
https://www.kaggle.com/datasets/gauravduttakiit/predict-cltv-of-a-customer/data

Github Link: https://github.com/Corfish123/ORIE4741FinalProject

In the competitive landscape of the insurance industry, understanding and predicting Customer Lifetime Value (CLV) has become indispensable for maintaining a competitive edge and fostering customer loyalty. Accurate CLV data empowers companies to segment their market effectively based on different customer profiles and forecast profit, enabling optimal resource allocation. Our proposal aims to address this need by leveraging data from VihanBima, a leading motor vehicle insurance provider in India.

VihanBima seeks to segment their customer base using CLV to offer personalized service programs. However, to achieve this, they require robust predictive models that can accurately estimate CLV based on various customer attributes and policy choices. By predicting CLV, VihanBima aims to enhance customer engagement strategies and optimize insurance policy offerings. By learning more about customer behavior using this dataset, we can also generalize our results to companies beyond VihanBima as well.

Our dataset is sourced from Kaggle ("Predict CLTV of a customer") and comprises 10 different explanatory variables that could be used for prediction customer lifetime value. The variables range from binary to continuous variables such as gender, area, qualification, claim amount, and number of policies. We aim to be able to predict the customer lifetime value variable using various regression techniques such as linear regression. We will also look into different feature transformations that could help our model have better predictive performance.

Our project aims to provide VihanBima with actionable insights to enhance their customer engagement strategies and optimize insurance policy offerings. We will present our findings, including the selected predictive model and key insights derived from the analysis. These insights will enable VihanBima to make informed decisions regarding customer relationship management and strategic planning. By enhancing their understanding of CLV and customer

behavior, VihanBima can tailor their services effectively, foster customer loyalty, and drive sustainable growth in the insurance market.