Report on Exploratory Data Analysis

Introduction:

The goal of this exploratory data analysis (EDA) is to look into the feasibility of using a predictive model to anticipate customer turnover and test the hypothesis that churn is impacted by customer price sensitivity. The client is particularly interested in determining the efficacy of a discounting approach for reducing customer turnover.

Hypotheses of the Client:

Churn Prediction: The client believes that by using a predictive model, it is feasible to anticipate which customers are likely to churn.

attrition and Price Sensitivity: The client feels that price sensitivity influences customer attrition. Customers who are more price-sensitive, according to the idea, are more prone to churn.

discounted approach: The client wants to try out a discounted approach. As a potential successful solution, the division head's subject matter expert (SME) advised delivering a 20% discount to consumers with a high proclivity to churn.

Approach:

We did an exploratory data analysis on the given dataset to examine these assumptions. The collection includes customer-related data such as churn status, price details, and other pertinent features.

Findings:

According to the EDA, the highest rate of churn is associated with customers who already receive the largest discounts. As a result, we believe that giving discounts will have little effect on reducing turnover.

There appears to be no relationship between the months and the contract expiration dates. Furthermore, it is unclear if the end date on the dataset represents the expiration date of the service contract or the date of churn.

Recommendations:

The following suggestions are made based on the analysis:

Obtain information such as the amount of difficulty reported by consumers, social media reviews, and the number of complaints filed. This will aid in understanding why clients abandon the organization.

Create a predictive churn model: Using machine learning techniques to create a predictive model for customer churn can aid in detecting prospective churners and taking preventive steps.

Price-sensitive clients should be segmented: Identifying price-sensitive customers and adapting pricing strategies or special offers for them might potentially lower turnover rates.

Implementation of the discounting approach: Experimenting with the discounting strategy by delivering a 20% discount to high-propensity turnover clients might be advantageous. However, more A/B testing and monitoring are necessary to determine the long-term impact.

Conclusion:

The preliminary data analysis sheds light on the link between churn, price sensitivity, and the possible success of a discounting approach. Further research, predictive modelling, and testing are advised in order to validate these assumptions and make educated decisions in order to decrease churn and retain valued clients.