Subject: Proposal for Testing the Hypothesis on Price Sensitivity Driving Customer Churn

Dear Sir/Ma,

I hope this email finds you well. Following our team meeting and discussions on potential hypotheses, I have outlined a plan to delve deeper into the hypothesis that customer churn in the SME segment is driven by price sensitivity. To test this hypothesis effectively, I propose the following approach:

1. Formulating the Hypothesis as a Data Science Problem:

- Hypothesis: Customer churn in the SME segment is significantly influenced by price sensitivity.
- Data Science Problem: Build a predictive model to identify SME customers at risk of churning based on their price sensitivity.

2. Major Steps to Test the Hypothesis:

a. Data Collection:

- Obtain historical data on SME customer behavior, including churn status, pricing changes, and other relevant variables.

b. Data Preprocessing:

- Clean and preprocess the data, handling missing values and outliers.
- Create a target variable indicating churn status (churned or not) and relevant features such as pricing history, contract length, and usage patterns.

c. Exploratory Data Analysis (EDA):

- Conduct EDA to understand the distribution of key variables.
- Explore the correlation between churn and pricing changes.
- Identify potential confounding variables that may influence churn.

d. Model Development:

- Split the data into training and testing sets.
- Build a predictive model to predict churn based on price sensitivity and other relevant features.

e. Model Evaluation:

- Evaluate the model's performance using appropriate metrics (accuracy, precision, recall, etc.).
- Validate the model using a holdout dataset to ensure generalizability.

f. Deployment and Monitoring:

- Deploy the predictive model for real-time predictions.
- Monitor the model's performance regularly and update as needed.

I believe this approach will provide valuable insights into the relationship between price sensitivity and customer churn in the SME segment. Please let me know if you have any specific preferences or additional considerations.

Looking forward to your feedback.

Best regards,
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