

Dear sir or madam,

I hope this email finds you well. Estelle and I have thoroughly examined the details discussed in the team meeting and have devised our strategy for investigating PowerCo's customer churn problem.

1. Problem Definition:

- Issue: PowerCo is experiencing customer churn, potentially influenced by pricing adjustments and other factors.
- Goal: Understand primary causes of customer churn, focusing on price sensitivity and additional factors.
- Hypothesis: Customer churn may be impacted by pricing, service quality, satisfaction, customer characteristics, and clean energy initiatives.

2. Data Collection and Preparation:

Following datasets are required:

- Customer transaction and purchasing patterns over the past 5 years.
- Pricing changes and promotions data.
- Customer feedback and complaints records.
- Customer information, including historical electricity consumption, tenure, and location.
- Data on clean energy usage and initiatives.
- Churn data indicating customer likelihood to churn.

Clean and preprocess collected data:

- Handle missing values and outliers.
- Conduct feature engineering for comprehensive analysis.

3. Data Exploration and Analysis:

- Explore data using visualizations such as line charts, heatmaps, and correlation matrices to identify trends.

4. Model Building and Evaluation:

- Apply statistical and machine learning models, such as decision trees, random forests, or CatBoost, to uncover patterns and correlations for this binary classification problem.
- Define evaluation metrics based on complexity, accuracy, and explainability to select the optimal model.

5. Communication and Visualization of Results:

- Derive insights and recommendations from analysis.
- Utilize interactive visualization tools to present results to clients and solicit feedback for further refinement of recommendations.

Estelle and I are eager to proceed with this investigation. Please let us know if you have any specific preferences or additional guidance.

Best regards

