Abstract Slide

Project: Customer Churn Prediction Analysis

Key Findings:

1. The features "channel_sales," "has_gas," and "origin_up" have significant correlations with customer churn, indicating their importance in predicting churn behavior.

2. Features with negative correlation to churn include "cons_12m," "cons_gas_12m," "cons_last_month," and "num_years_antig," suggesting that longer customer tenure and higher energy consumption lead to lower churn likelihood.

3. Features with positive correlation to churn include "forecast_cons_12m," "forecast_discount_energy," "forecast_meter_rent_12m," "forecast_price_energy_peak," "margin_gross_pow_ele," "margin_net_pow_ele," and "pow_max," indicating the influence of forecasted consumption, discounts, margins, and power subscription on churn.

4. The "foosdfpfkusacimwkcsosbicdxkicaua" and "MISSING" channel sales require focused attention due to significant churn rates. Further analysis is needed to optimize retention strategies.

5. Customers with gas subscriptions show a higher churn rate. Implementing improved services and tailored retention programs can mitigate churn in this segment.

6. The model demonstrates a strong ability to accurately predict churn, with a recall of 1.00 for both classes (0 and 1) on both train-set and test-set data, indicating a good fit.

Recommendations:

1. Focus on improving customer retention strategies for the "foosdfpfkusacimwkcsosbicdxkicaua" and "MISSING" channel sales categories to reduce churn rates and enhance customer loyalty.

2. Implement targeted retention programs for customers with gas subscriptions to address their higher churn risk and improve overall customer satisfaction.

3. Continuously monitor the performance of the churn prediction model and update as necessary to maintain its accuracy and relevance.

Impact on Bottom Line:

By implementing the recommended strategies based on churn predictions, the company can expect to achieve:

- Reduced churn rates and increased customer retention.

- Improved customer satisfaction and loyalty.

- Enhanced marketing and retentions efforts leading to higher customer lifetime value.

- Potential cost savings associated with customer acquisition and onboarding.

The churn prediction model will be a valuable tool in identifying at-risk customers and designing effective retention strategies, ultimately contributing to the company's bottom line growth and long-term success.