CHURN PREDICTION STRATEGIES

Proactive Risk Modeling for Telecom Customer Retention

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OVERVIEW OF CHURN PREDICTION TOPICS

This presentation covers crucial churn prediction strategies and insights.

- Overview of the project
- Understanding customer churn rates
- Business Understanding
- Data understanding
- Modeling approach
- Model evaluation
- Key drivers of churn
- Strategies for reducing churn risks
- Next steps
- Thank You

UNDERSTANDING CHURN

What is Churn? – Definition and relevance

Churn refers to the rate at which customers discontinue their service, making it a **critical metric** for telecom companies to monitor.

Churn is a major revenue leak in the telecom industry.

Our goal: Predict which customers are likely to leave, and intervene early.

Using customer data, we built models to support smarter, proactive retention strategies.

Factors Influencing Churn – Key drivers and metrics

Several key factors, including service quality, customer support, and pricing, significantly influence churn rates, impacting overall **business performance** and profitability.

BUSINESS UNDERSTANDING

Understanding the Problem

- Acquiring new customers is 5x more expensive than retaining existing ones.
- High churn impacts revenue, market share, and operational costs.
- Predicting churn helps teams take targeted action before it's too late.
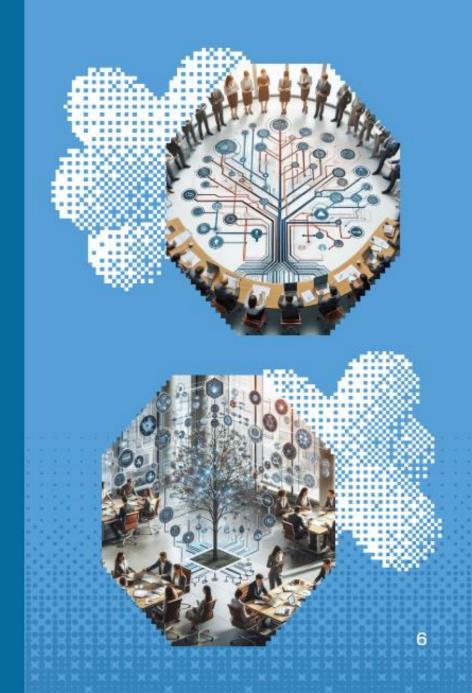
DATA-DRIVEN INSIGHTS ON CHURN PREDICTION

- What Data Did We Use? Dataset: ~3,300 customer records
- Features: Service usage, call minutes, customer support, and plans
- Target: Whether the customer churned (yes/no)

MODELING APPROACH

Our predictive strategy.

Step 1: Baseline model using logistic regression

Step 2: Improved model using decision tree

Evaluated using accuracy, precision, and recall

MODEL EVALUATION

How Well Did the Models Perform?

Logistic Regression:
- Accuracy: 86%
- Recall (churners): 27%
- Precision (churners): 54%

Decision Tree:
- Accuracy: 91%
- Recall (churners): 62%
- Precision (churners): 75%

KEY FACTORS INFLUENCING CHURN

What Triggers Customer Churn?

High daytime call usage

Having an international calling plan

Frequent customer service calls

RECOMMENDATIONS

How Can We Reduce Churn?

Prioritize customers with:

- Frequent support calls
- International plan usage
- High daytime minutes
- Offer loyalty incentives or discounts to retain high-risk customers

NEXT STEPS

Next Steps

- Moving Toward Deployment
- Pilot the model in one region
- Integrate churn alerts into CRM
- Enrich with satisfaction, billing, and feedback data

THANK YOU FOR YOUR ATTENTION!

Let's Keep Customers Connected

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