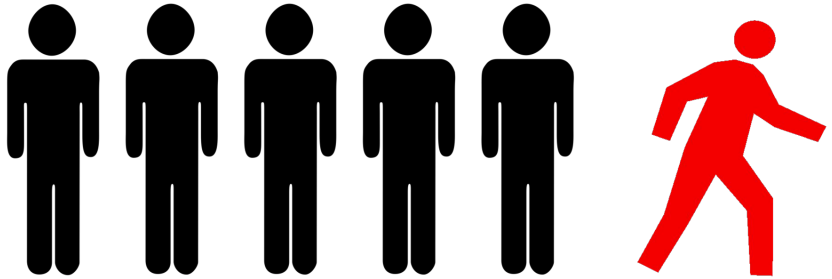
SyriaTel Churn Analysis



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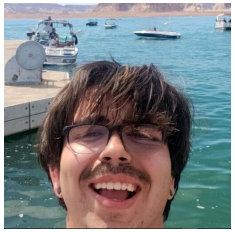

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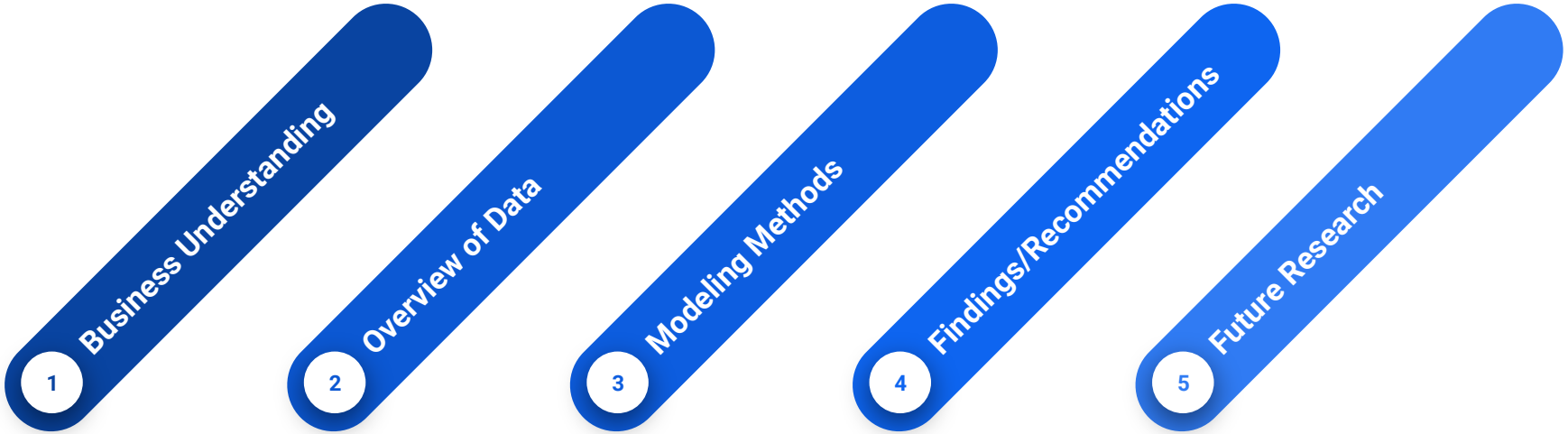
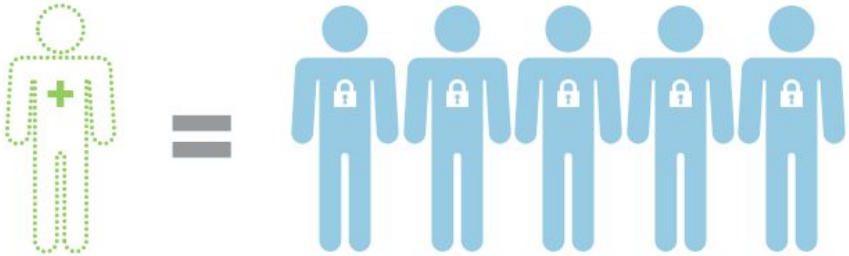
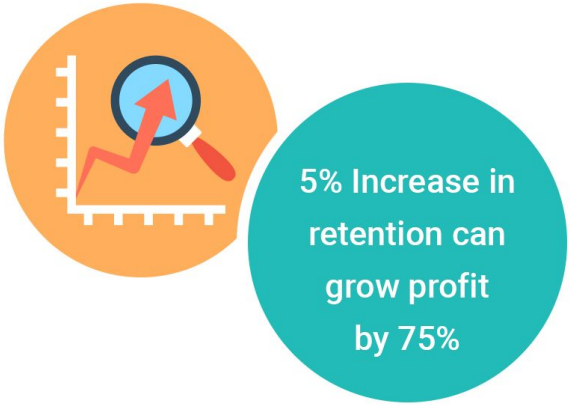
Agenda


1
Business Understanding
2
Overview of Data
3
Modeling Methods
4
Findings/Recommendations
5
Future Research

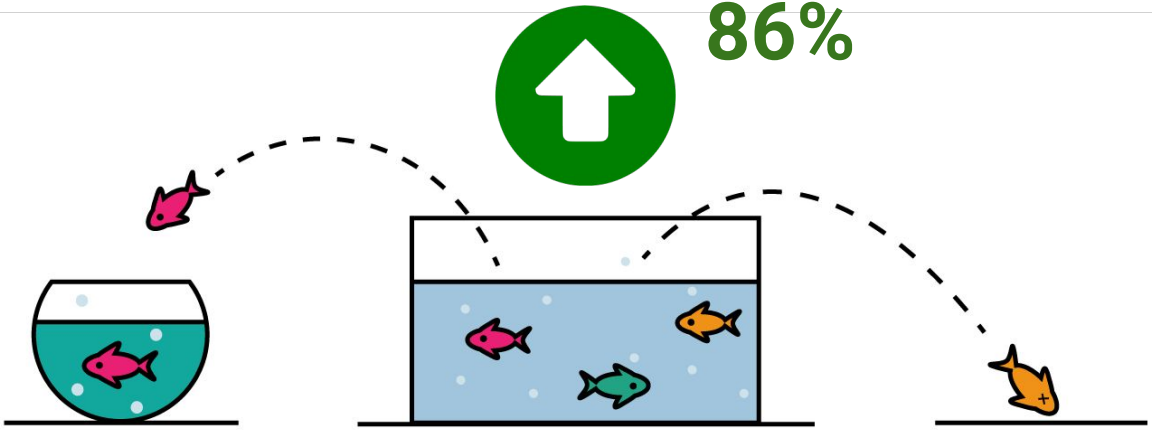
The Bottom Line



Acquiring 1 new customer costs the same as **retaining 5 existing customers**

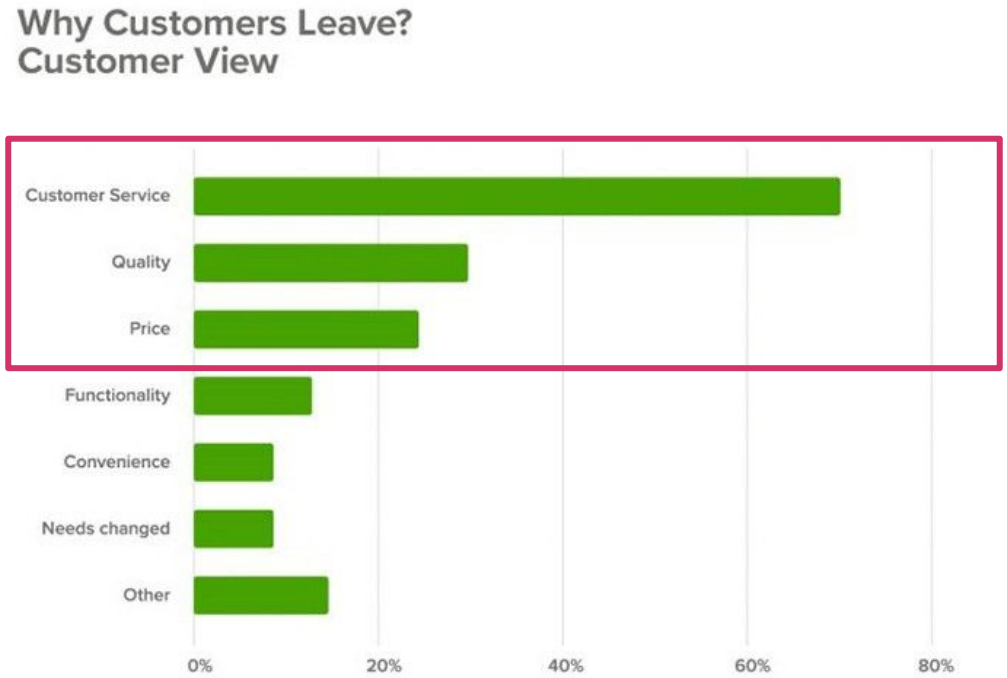


So Let’s Catch Them Before They Jump



Business Understanding

Leading Causes of Customer Churn in Telecom



Predictive Modeling → Action

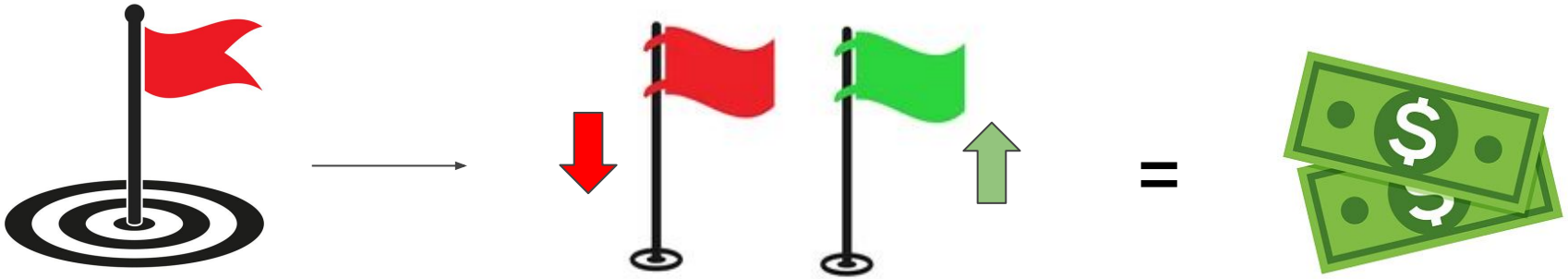
The 3Rs:

1.) **Reduction in marketing costs**

2.) **Retention insights**

3.) **Relationship-building strategies**

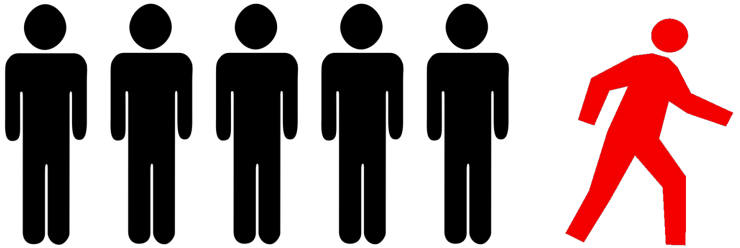
Predictive Modeling → Money



Overview of Data

The Data

- Based on U.S. Customers



- Target is customer churn

Features

- Types of plans
- Call minutes
- Call charges
- Account length

Assumption:

All customers are of equal value

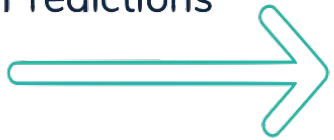
Modeling Methods

Modeling Methods

Features

Churn Classification Model

Predictions



Choose between

Do nothing

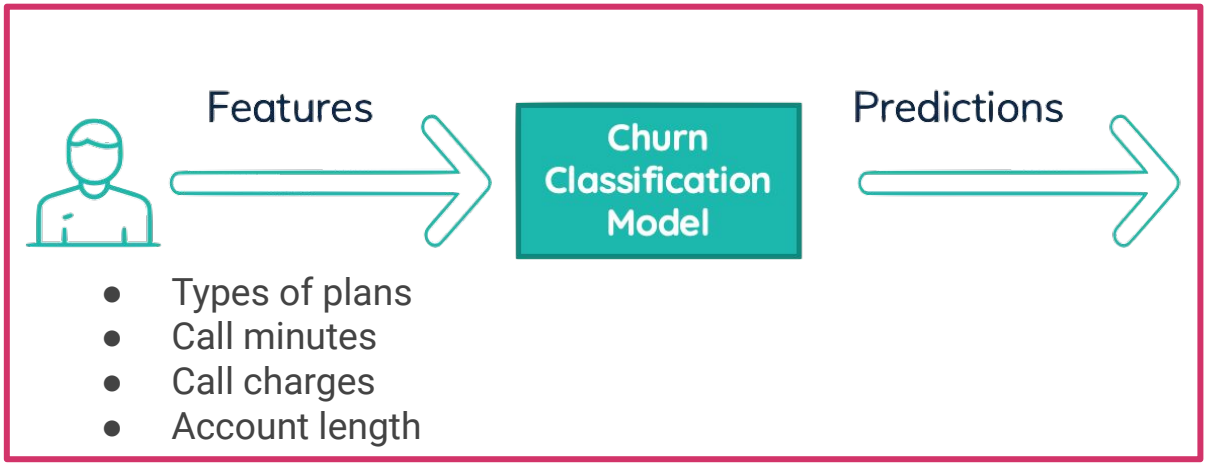
Direct mail

Telemarketing

Door 2 door

- Types of plans
- Call minutes
- Call charges
- Account length

Modeling Methods



Modeling Methods

- Types of plans
- Call minutes
- Call charges
- Account length

Model Metrics

Maximized

- Customers about to churn

Minimized

- False Flags

Scoring Using F1 Scores

- Inform us of the model’s quality
  - Rate of correct predictions from all positive test points
  - Rate of overall correct positive predictions

Findings

Best Model

CORRECTLY IDENTIFIES

86%

of CHURN customers.

INCORRECTLY IDENTIFIES

15%

of NO CHURN customers.

PREDICTIVE RETENTION CAMPAIGNS

POTENTIAL REVENUE GAINS

Comparative Metrics

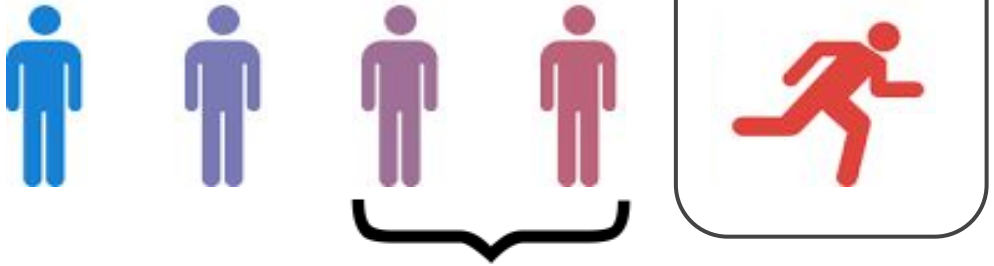
Current

+$10 +$10 +$10 +$10 churned

= $40

Model

+$10 +$10 +$8 +$8 +$8



= $54

Future Research

Future Research

- Analysis of promotional success
- Customer satisfaction survey
- More robust churn predictors
- Risk-determined promotionals
- Market Research

Thank you! Questions?

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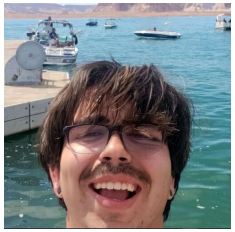

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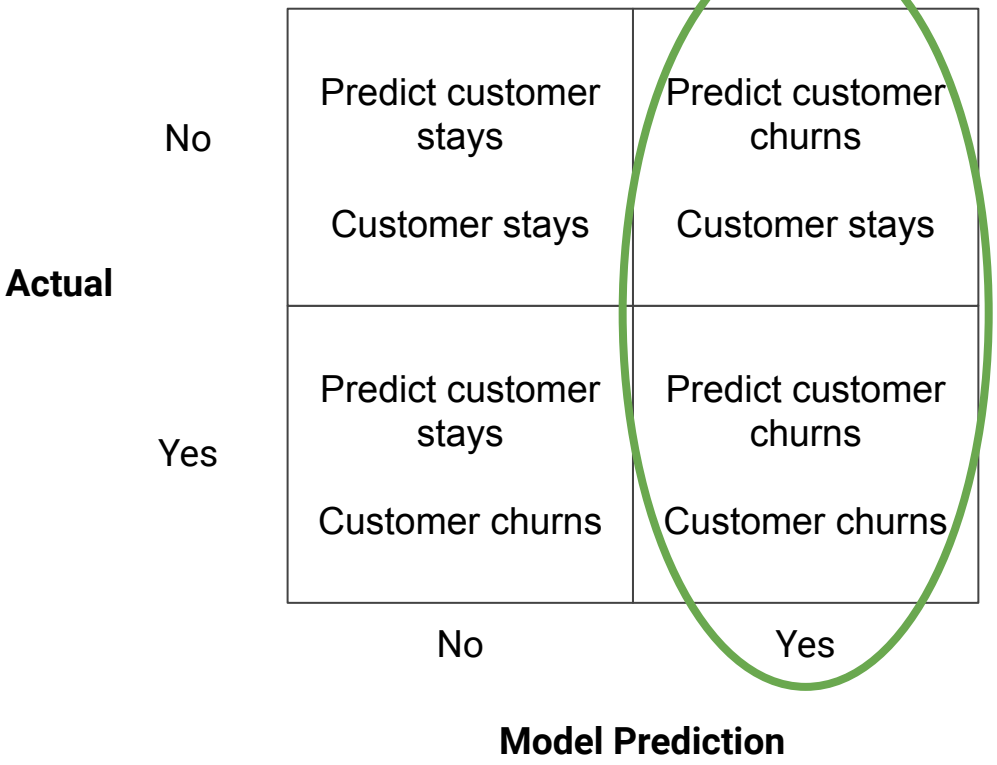
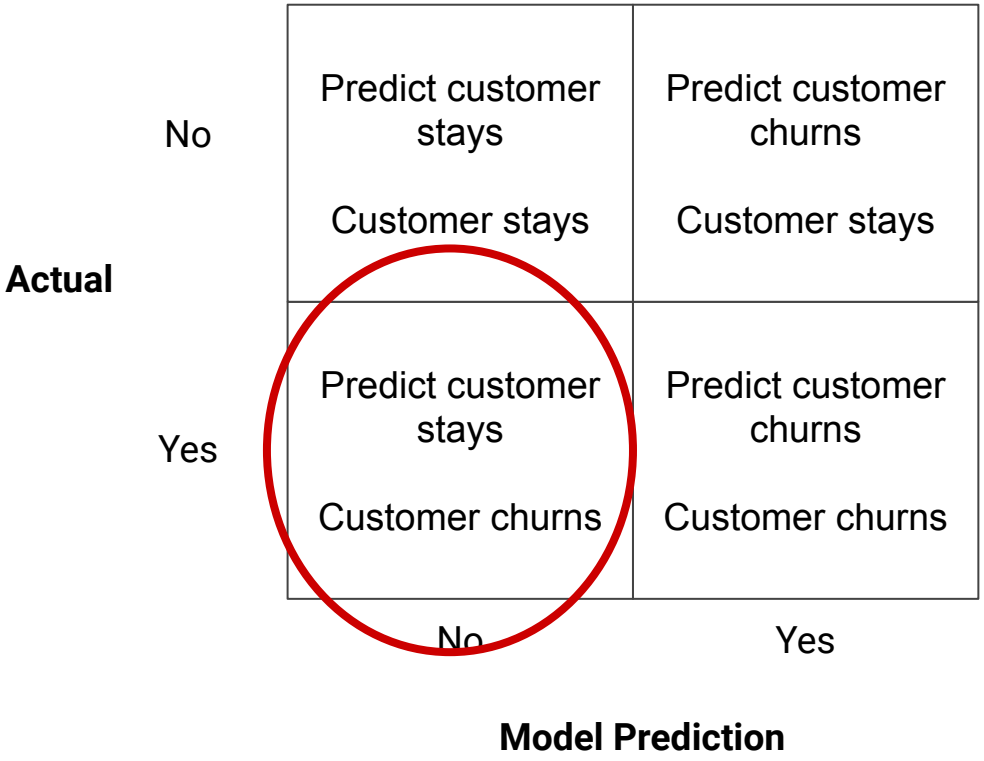
APPENDIX

Predictive Modeling → Money



Predictive Modeling → Money