

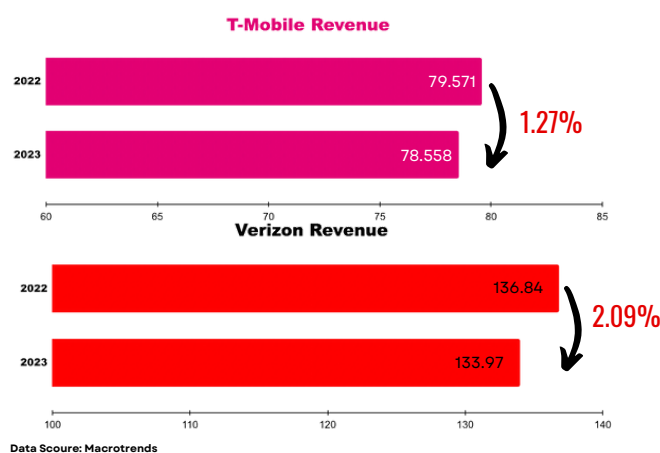


CUSTOMER CHURN

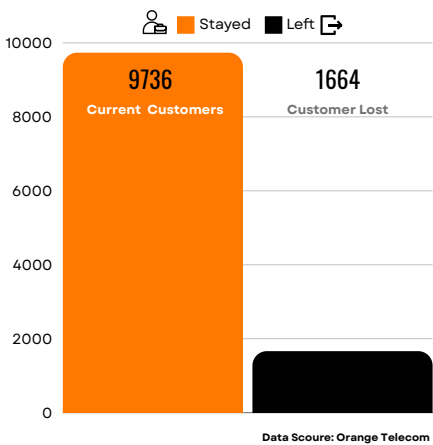
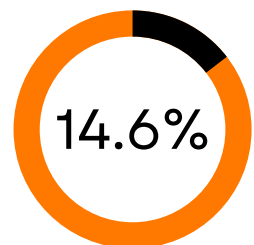
Predictive analytics proposal for customer retention

The U.S. telecom market size expanded from 2022 to 2023 (revenue \$447.2 B to \$468.1 B) while the industry leaders decreased monopoly power. This represents an opportunity for smaller companies to capture a larger market share. This infographic proposes ideas to introduce a model to predict potential loss of customers and help the company for customer retention strategy.

Both Industry Leaders Experienced Revenue Lost Over 1%



CHURN RATE



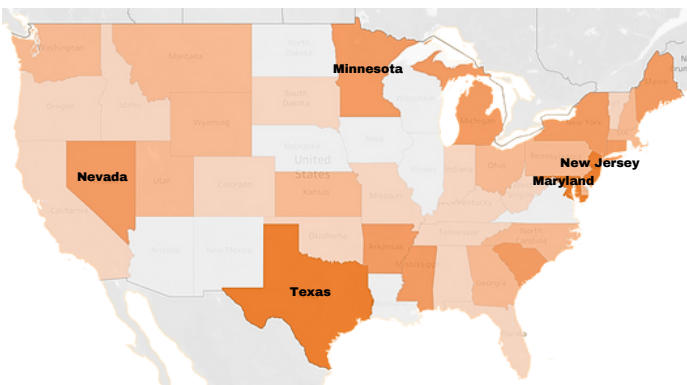
High Yearly Churn Rate Leads to Huge Revenue Lost

Base on the average subscription cost per customer, we calculated that it results in a **revenue lost** about **\$1.1 Million** per year for the company. Reducing churn rate becomes a priority for the company to expand and improve reputation.

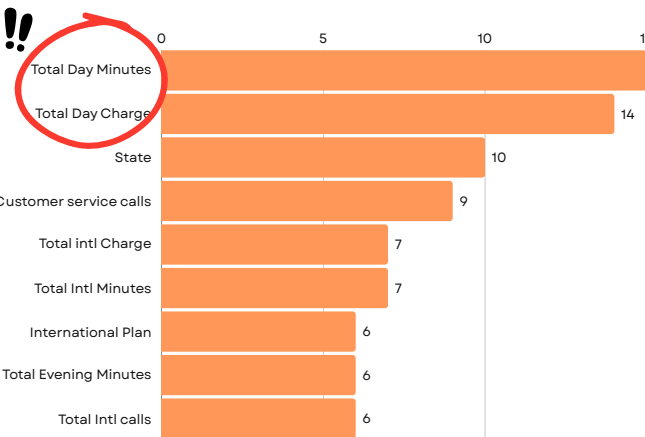
DIAGNOSTIC ANALYSIS

Though Machine Learning, Tree model found the Importance variables

Major States of Customer Losses in the U.S



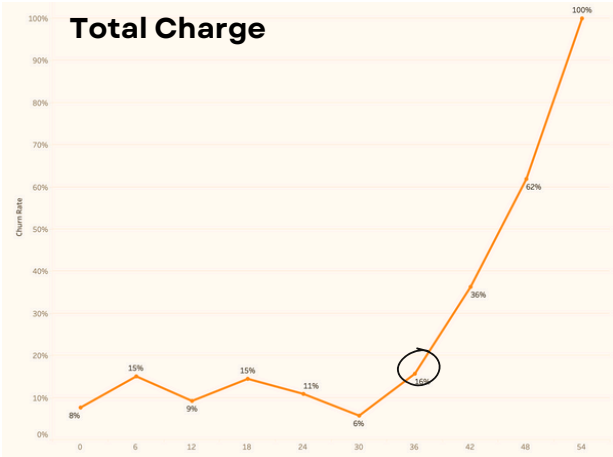
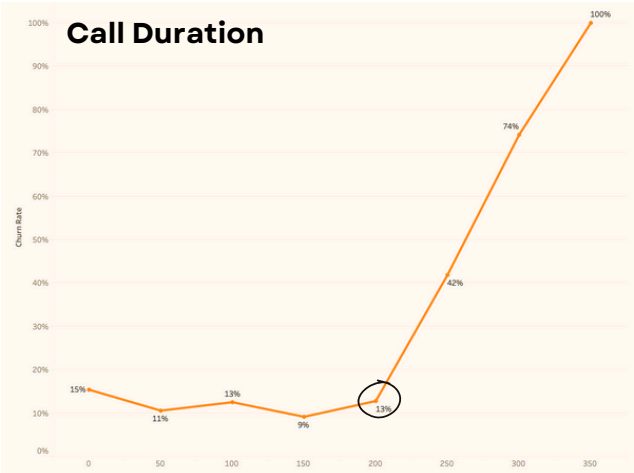
The major customer losses were concentrated in these five states, Texas, Nevada, Minnesota, Maryland, and New Jersey.



ON CUSTOMER CHURN RATE

IMAPCTS

In the lower call duration range (under 200 minutes), churn is low and relatively stable. Call time duration exceeds 200 minutes, churn begins to climb rapidly, eventually reaching 100% above 300 minutes.



Higher monthly Charge, higher churn rate. In the lower price range (under \$36), churn is low and stable. Churn rate increases after \$36, and shoot up to 100% after \$52

COST

Data Acquisition

A big portion of our cost was allocated to acquiring relevant and reliable data. This included gathering customer usage data, such as total day minutes, churn status, and billing details, from multiple internal and external sources.

Data Cleaning

Once the data was acquired, we spent a significant portion of our resources cleaning and organizing it.

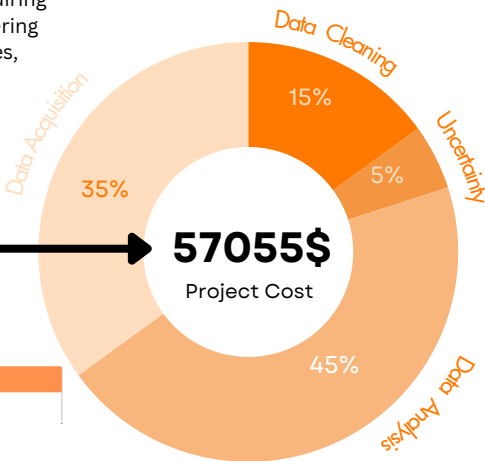
Uncertainty

A small portion of the budget was reserved for handling uncertainties, such as unexpected data inconsistencies or adjustments to the model.

Data Analysis

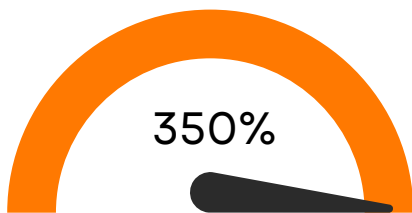
The next major effort went into data analysis and reporting, which accounted for almost half of the project's cost. We developed the predictive model that identified Total Day Minutes as a critical factor driving churn.

Cost Effective

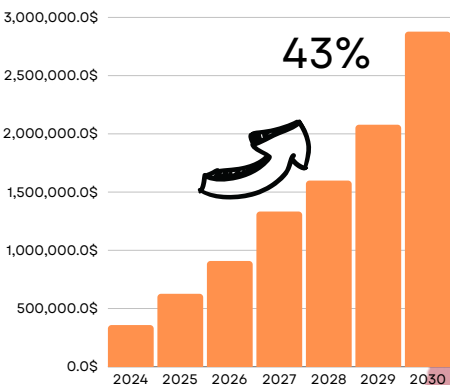


If the model helps reduce churn by even 2-5%, the revenue savings would justify the initial development costs **4 to 5** times over.

Estimated Return rate :



Estimated Revenue Growth:



Acquiring a new customer can cost **5 to 25** times more than retaining an existing one!

Investing in churn prediction models and retention strategies is far more **cost-efficient**, we can find out the monthly growth rate in the graph could get **43%** and return rete could acheive 350%, which has a significantly higher revenue than acquiring new customers.

CALL TO ACTION

FEW STEPS TO SUCCESS

Run model per month
continually update dataset

Analyze risky customers
diagnostic analytics

Find risky customers
predictive analytics

Presonalized strategy
preemptive step

RESOURCE PAGE

Telecom churn dataset

<https://www.kaggle.com/datasets/mnassrib/telecom-churn-datasets>

Organge telecom finance result

<https://www.orange.com/en/latest-consolidated-results>

Harvard business review

<https://hbr.org/2014/10/the-value-of-keeping-the-right-customers>

Prescription for cutting costs

https://media.bain.com/Images/BB_Prescription_cutting_costs.pdf

T-mobile Revenue

<https://www.macrotrends.net/stocks/charts/TMUS/t-mobile-us/revenue>

Verizon Revenue

<https://www.macrotrends.net/stocks/charts/VZ/verizon/revenue>

Telecom Market Size

<https://www.grandviewresearch.com/industry-analysis/us-telecom-services-market-report>