

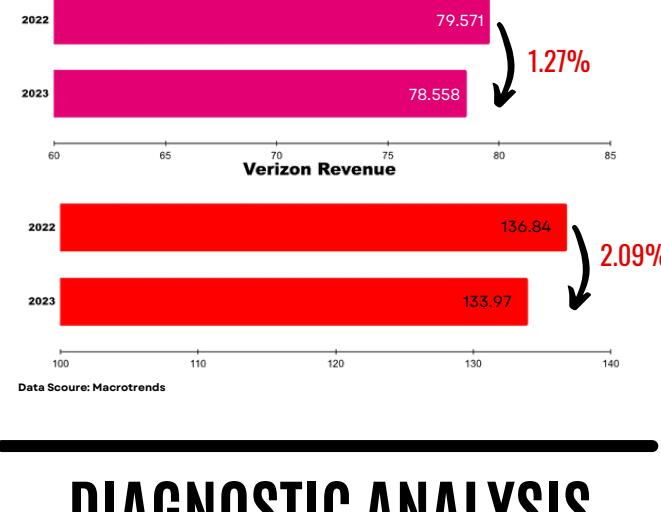


CUSTOMER CHURN

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

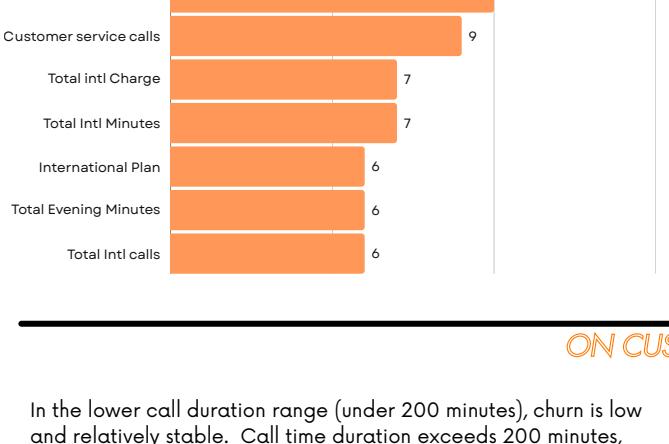


High Yearly Churn Rate Leads to Huge Revenue Lost

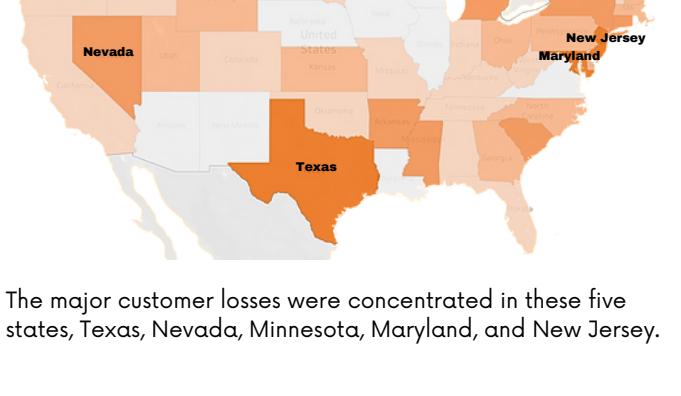
Based on the average subscription cost per customer, we calculated that it results in a **revenue lost** about **\$1.1 Million** per year for the company. Reducing churn rate becomes a priority for the company to expand and improve reputation.

DIAGNOSTIC ANALYSIS

Though Machine Learning, Tree model found the Importance variables

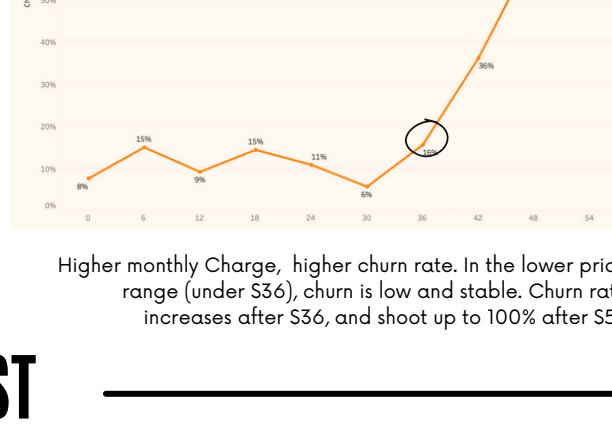
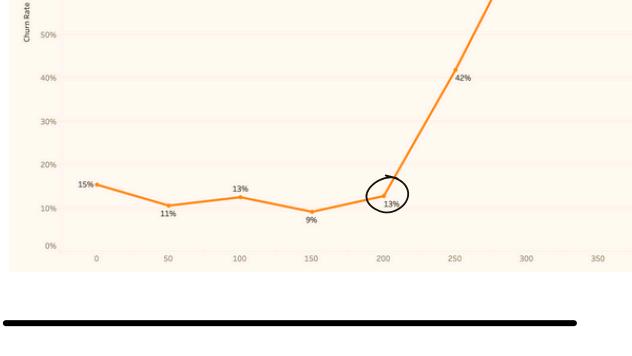


Major States of Customer Losses in the U.S



ON CUSTOMER CHURN RATE IMPACTS <=

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.



COST

ANALYSIS

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.

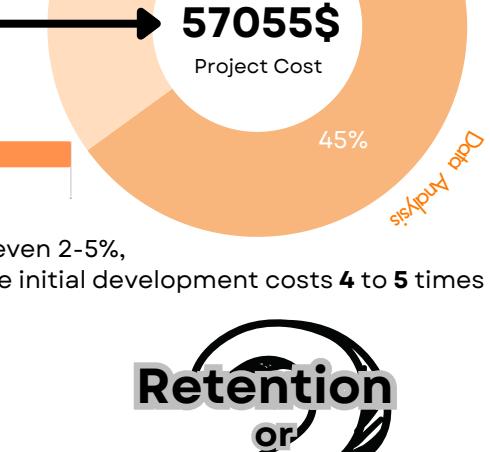
Uncertainty

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 :



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

Estimated Revenue Growth:



CALL TO ACTION

FEW STEPS TO SUCCESS

Run model per month
continually update dataset

Find risky customers
predictive analytics

Analyze risky customers
diagnostic analytics

Personalized strategy
preemptive step

RESOURCE PAGE

Telecom churn dataset

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

Orange 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>