Telecom Industries

PREDICTING TELECOM CUSTOMER CHURN

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TODAY'S AGENDA

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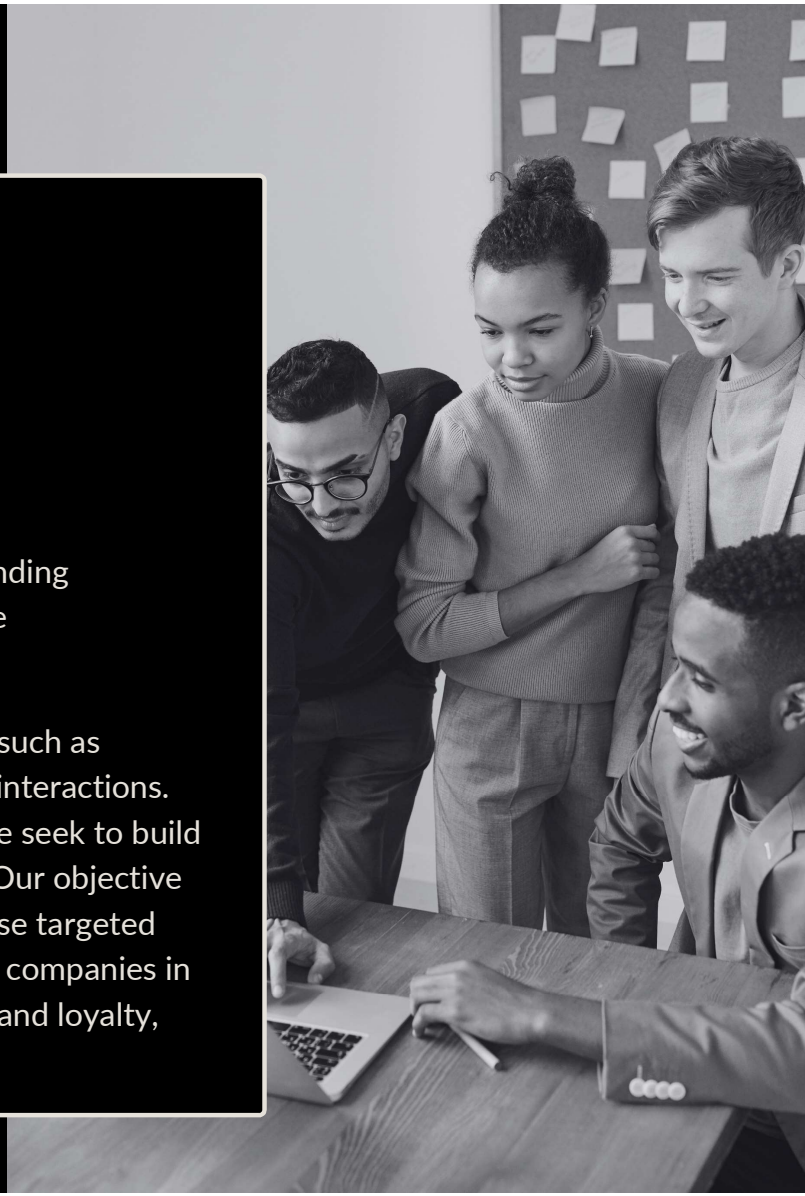
INTRODUCTION

Customer churn, the phenomenon where customers discontinue their service with a telecom provider, poses a significant challenge in the telecom industry. High churn rates not only affect revenue but also increase the costs associated with acquiring new customers. Understanding the factors that drive customer churn is crucial for developing effective retention strategies

In this project, we will explore various customer-related features such as demographics, usage patterns, transaction history, and customer interactions. Through comprehensive data analysis and feature engineering, we seek to build a robust understanding of the dynamics behind customer churn. Our objective is to provide actionable insights that empower businesses to devise targeted retention strategies. Ultimately, this analysis will support telecom companies in making data-driven decisions that improve customer satisfaction and loyalty, ensuring sustainable growth and competitive advantage.



PROBLEM STATEMENT

Analyzing Customer Churn Dynamics

As a Data Analyst, the project aims to delve into extensive datasets from both banking and telecom domains to understand customer churn dynamics.

Churn Prediction Models

By leveraging various customer-related features such as demographics, transaction history, and activity status, the goal is to analyze patterns and build predictive models capable of forecasting customer churn.

Boosting Customer Retention

Through comprehensive data analysis, feature engineering, and model development, the project seeks to empower businesses with actionable insights to implement targeted retention strategies and enhance customer loyalty

ANALYSIS OBJECTIVES

Identifying Key Churn Driver

Determine which factors contribute most significantly to customer churn within the banking and telecom industries, Analyze the correlation between different customer attributes and the likelihood of churn and Identify patterns or trends that distinguish churned customers from those who remain active

Segmentation of Customer Base

Segment customers based on their demographic characteristics, transactional behavior, and activity status,Explore distinct customer segments and their respective churn rates and Identify high-value segments that are more prone to churn and those that are more loyal

Retention Strategy Recommendation

Generate actionable insights and recommendations to improve customer retention based on analysis findings, Develop targeted retention campaigns tailored to specific customer segments and their churn risk levels .

ANALYSIS OBJECTIVES

Iterative Improvement

Establish mechanisms for ongoing monitoring of churn rates and customer behavior patterns, Implement feedback loops to continuously refine predictive models and retention strategies based on real-time data .

Enhance Customer Understanding

Gain a deeper understanding of customer behavior and preferences to improve overall service quality and customer satisfaction

Support Decision-Making

Provide data-driven insights to help management devise effective retention strategies and allocate resources efficiently

KEY FEATURES

CUSTOMER INFORMATION

Roe Number , Customer ID Credit score, Geography, GenderID, Age, Tenure, Balance,Number of Product, cardID, Is Active member, Salary existed and DOB

GEOGRAPHY AND GENDER

Geography _ID, Geography_Location
Gender_ID, Gender_category

CREDIT CARD

credit_card_ID and Category

CUSTOMER ACTIVE AND EXITS

Active_ID and Active_ category
Exit_ID and Exit_ category

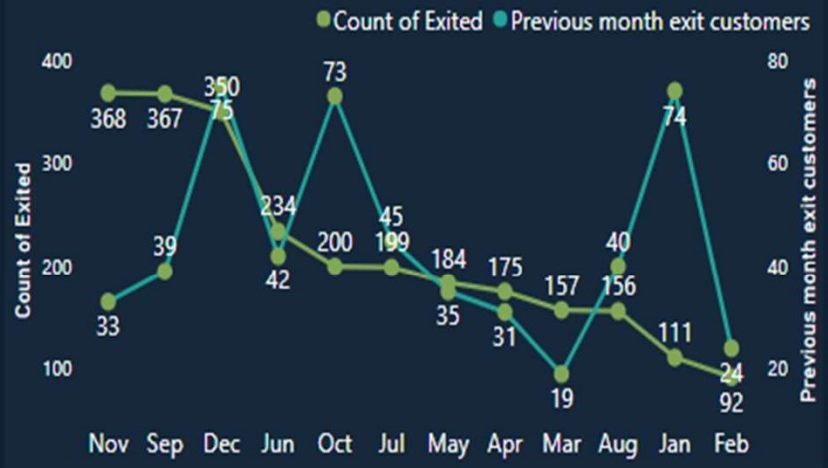
Customer Churn Analysis

2593	524	1827	2069
Total Customers	Exit Customers	Credit Card Holders	Retain customers
1344	1249	766	20.21%
ActiveMembers	Inactive members	Non credit card h...	Churn%

Female 1148

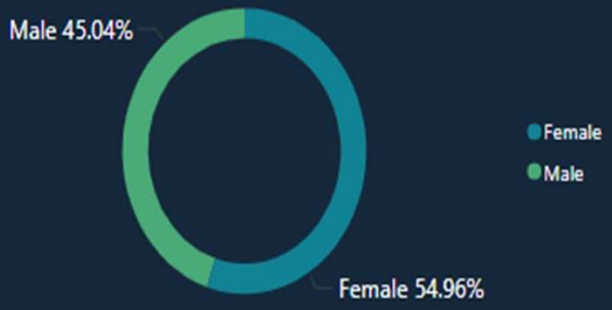
Male 1445

Exit Comparisons



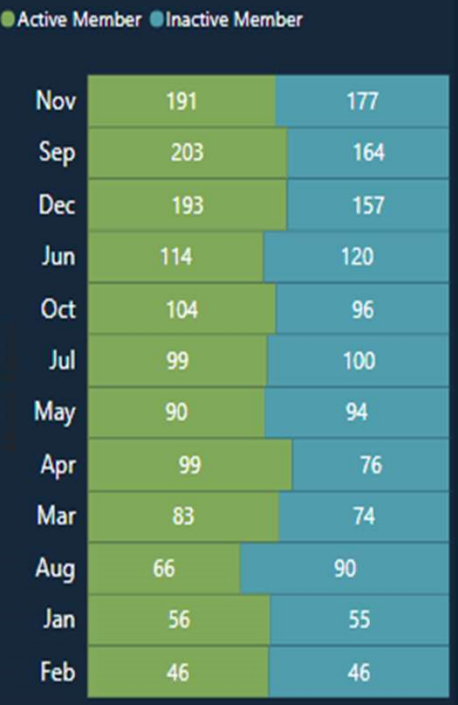
Exit Customers by credit type

Exit Customers by Gender Category



France	Germany	Spain
1337	629	627

Total Customers



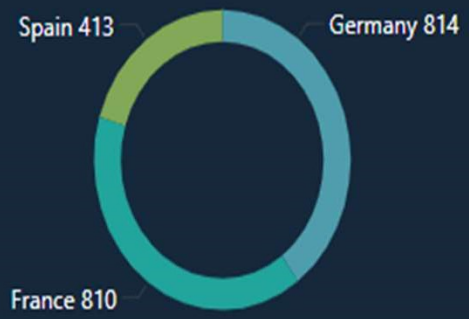
Customer Churn Analysis

10K	2037	7055	7963	5151	4849	2945	20.37%
Total Customers	Exit Customers	Credit Card Holders	Retain customers	ActiveMembers	Inactive members	Non credit card holders	Churn%

year	Apr	Aug	Dec	Feb	Jan	Jul	Jun	Mar	May	Nov	Oct	Sep
2016	16.30%	20.81%	19.22%	12.00%	20.73%	16.56%	23.48%	17.02%	23.02%	19.81%	17.75%	20.16%
2017	26.71%	16.78%	22.16%	14.06%	27.59%	19.46%	21.15%	25.95%	18.44%	23.78%	26.35%	21.45%
2018	20.00%	25.00%	19.43%	20.65%	21.62%	20.10%	19.23%	19.75%	22.83%	20.38%	16.50%	19.89%
2019	18.78%	17.26%	19.57%	20.34%	17.34%	16.22%	19.34%	21.33%	20.16%	21.60%	21.36%	21.24%

Exit Customers by month

Exit Customers by GeographyLocation



DASHBOARD ANALYSIS

1.Churn Rate

The churn rate, represented by "Exit Customers" as a percentage of "Total Customers", fluctuates throughout the year. It's generally higher in the first half of the year, reaching peaks in April (26.71% in 2017) and May (23.02% in 2016). December tends to have the lowest churn rates, with December 2019 having the lowest at 12.00%.

DASHBOARD ANALYSIS

2. Member

Active members churn less than inactive members. In December 2019, for example, the churn rate for inactive members was 21.60%, whereas it was only 16.22% for active members.

3. Card Holder

Customers who have credit cards tend to churn less than those who don't. For instance, in December 2019, the churn rate for non-credit card holders was 39.96%, whereas it was only 21.36% for credit card holders.

4. Overall

Overall, the dashboard suggests that the company is acquiring new customers at a faster rate than it is losing them. However, the number of exit customers is also increasing, so it is important to investigate the reasons for this churn

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THANK YOU

for your time and attention

Present by Narendra Singh