

Customer Behaviour Analysis & Churn Prediction

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Introduction

This presentation explores customer behavior and churn prediction by analyzing data from 7,043 customers. It highlights the challenge of high churn rates and the importance of focusing on retention strategies to boost profitability through data-driven insights.



01

Customer Churn Analysis



Problem Statement and Objectives

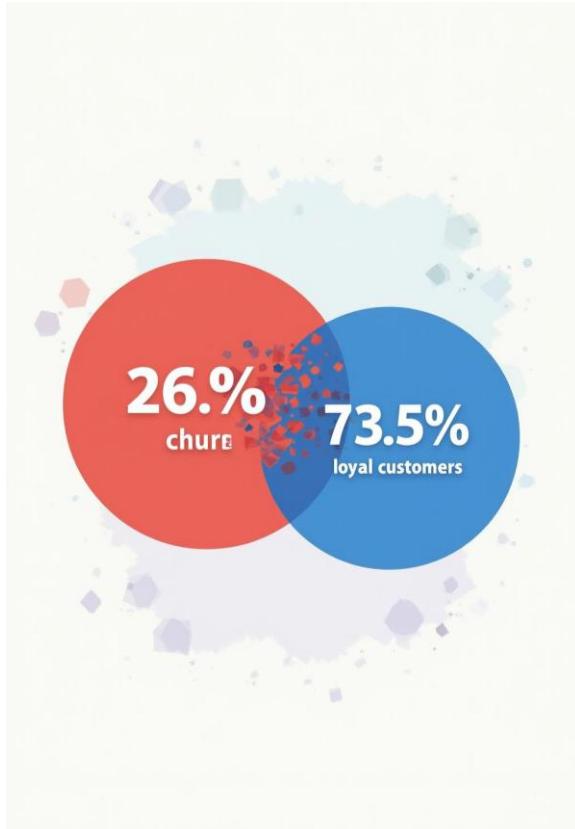
Acquiring new customers costs five times more than retaining existing ones, making high churn rates a critical business concern. This project analyzes customer behavior and service choices to predict churn and improve retention using Python tools like Pandas and visualization libraries.



Exploratory Data Analysis

The overall churn rate stands at **26.5%**, with **73.5%** of customers remaining loyal. This identifies a substantial opportunity to recover revenue. Understanding customer segments and behaviors related to churn is key to developing effective retention strategies.





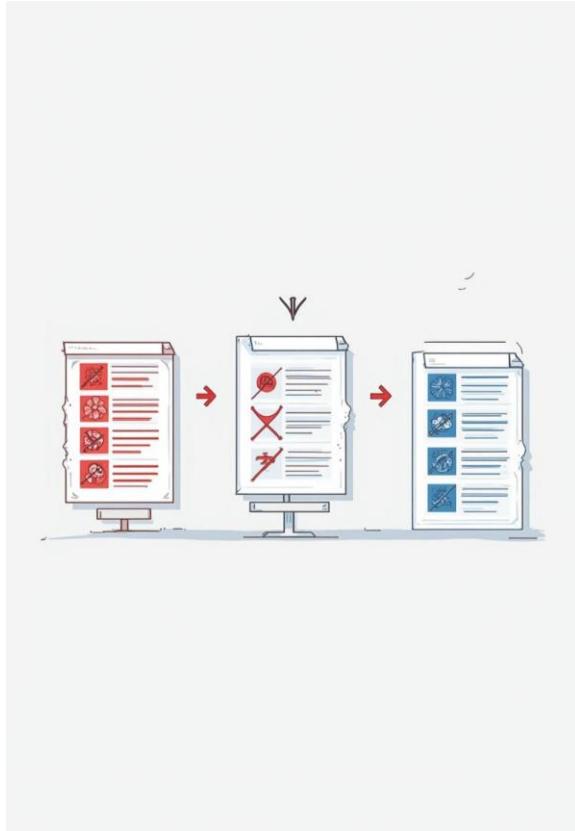
Key Churn Statistics

The overall churn rate is **26.5%**, indicating a significant challenge in customer retention. Meanwhile, **73.5%** of customers remain loyal, highlighting the value of targeted retention efforts. This churn level underscores the need for strategic interventions to reduce revenue loss and strengthen customer relationships through data-driven decision making.

02

Key Insights and Recommendations





Impact of Contract Types on Churn

Customers with *month-to-month* contracts exhibit a significantly higher churn rate compared to those on annual or biannual contracts. This suggests that longer-term commitments increase loyalty. To reduce churn, businesses should incentivize customers to switch to longer contracts by offering discounts or loyalty rewards.

Role of Technical Support Issues

A high volume of technical support tickets correlates strongly with increased churn risk. Customers facing repeated service issues or poor onboarding experiences often become dissatisfied. Proactive customer support and efficient troubleshooting processes are essential to retain high-risk customers.



Influence of Service and Internet Type

Fiber optic users show a higher churn rate than DSL customers, possibly due to price sensitivity or competitive pressures. This insight suggests the need for competitive pricing audits and tailored retention benefits for fiber optic customers, especially those with high usage, to improve loyalty.



Conclusions

Reducing churn requires a multifaceted approach: encouraging long-term contracts, enhancing proactive technical support, and addressing pricing competitiveness in service types. These targeted strategies improve retention, reduce costs related to customer acquisition, and strengthen overall profitability in a competitive market environment.

