Customer Churn Analysis Dashboard

37
(Months)

$16.06M
Yearly Charges

1.6
Annual Cha

Subscribed Services

Subscription Time

1699
Phone Service

814
Streaming
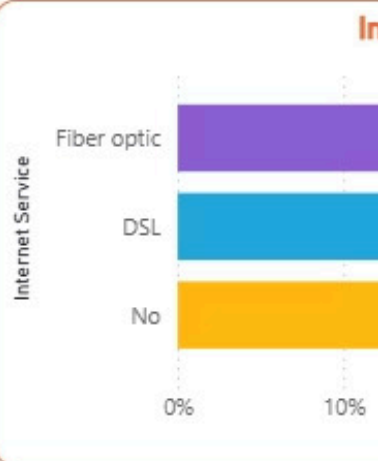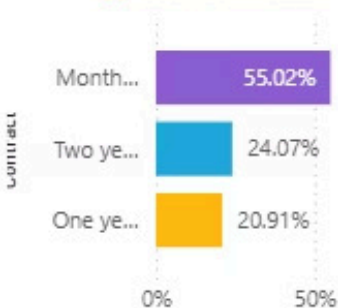
523
Online Backup

295
Online Sec

Types of Contracts

Fiber optic

DSL

No

Telco Customer Churn Analysis

Uncovering the key drivers behind customer churn and proposing data-driven retention strategies using Power BI

The Challenge

Customer Churn Crisis

Customer churn is one of the most pressing challenges in the telecom industry, directly impacting revenue and customer lifetime value.

This analysis examines the Telco Customer Churn dataset from Kaggle to identify patterns and propose actionable retention strategies.

$1.67M

Annual Revenue Lost

1,869

Customers at Risk

Dashboard Architecture

Customer Overview

Who is churning and why? Demographics, tenure, payment methods, and contract types.

Deep-Dive Analysis

Services, behaviors, and revenue patterns that influence churn the most.

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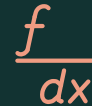
Tools & Technologies

Power BI Desktop

Interactive dashboards with advanced visualizations including cards, donut charts, bar charts, and waterfall charts.

Power Query

Data cleaning and transformation to prepare the Kaggle dataset for analysis.

DAX Expressions

Custom measures and calculations to derive meaningful business insights.

Critical KPIs

1,869

Total customers at risk of churning

32.37 months

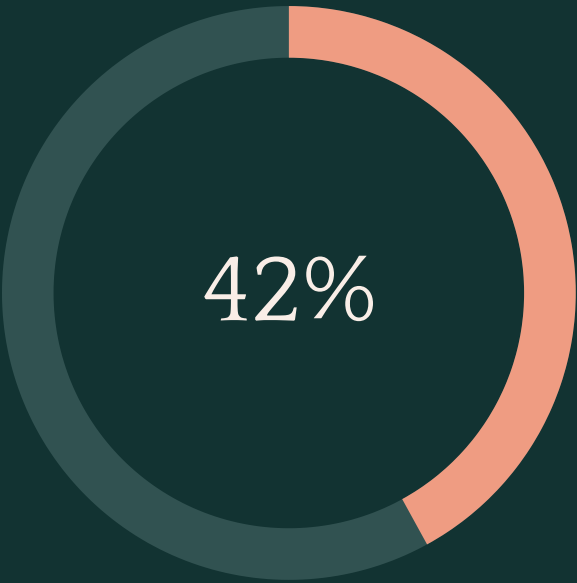Average customer tenure (~2.7 years)

$16.06M
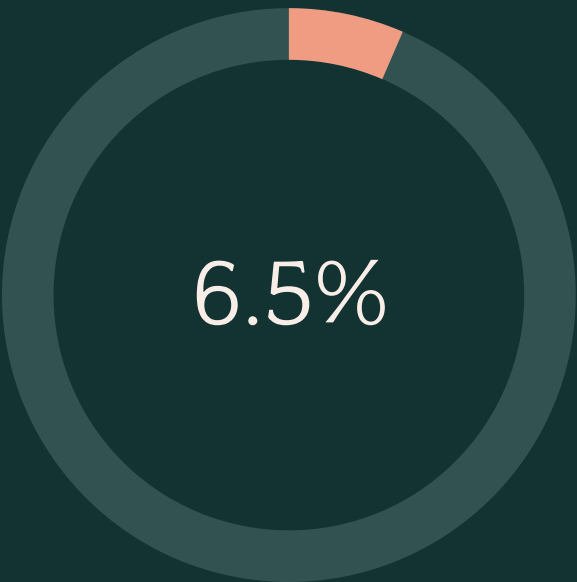
Total yearly charges

$0.14M

Direct revenue loss from churn

Who's Churning?

High-Risk Demographics

42%

Senior Citizens

Most vulnerable group

6.5%

With Dependents

Family plans reduce churn

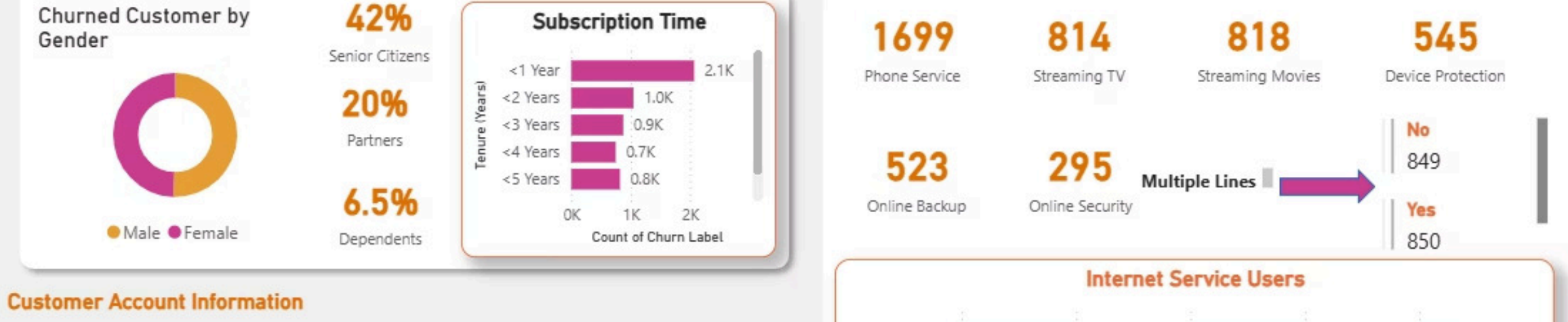## Tenure Insights

Majority of churn happens within the **first year**. Churn steadily decreases as tenure increases.

Internet Service Type

- **Fiber Optic:** 43.9% churn rate
- **DSL:** 34.3% churn rate
- **No Internet:** 21.6% churn rate

Contract & Payment Patterns

- **55% churn** from month-to-month contracts
- **33.6%** use electronic checks (highest risk)
- **59%** have paperless billing

Churned Customer by Gender

42% Senior Citizens

20% Partners

6.5% Dependents

● Male ● Female

Subscription Time

Tenure (Years)
- <1 Year: 2.1K
- <2 Years: 1.0K
- <3 Years: 0.9K
- <4 Years: 0.7K
- <5 Years: 0.8K

Count of Churn Label

Customer Account Information

1699 Phone Service

814 Streaming TV

818 Streaming Movies

545 Device Protection

523 Online Backup

295 Online Security

Multiple Lines

No 849

Yes 850

Internet Service Users

Customer Overview Dashboard

01

Early Churn Crisis

Most customers leave within the first year

02

Senior Citizen Risk

42% of churned customers are seniors

03

Payment Method Impact

Electronic check users dominate churn

04

Contract Commitment

Month-to-month contracts show 55% churn
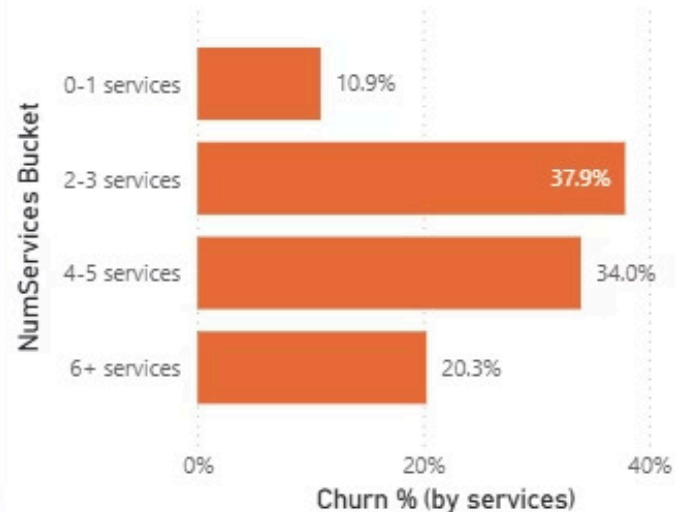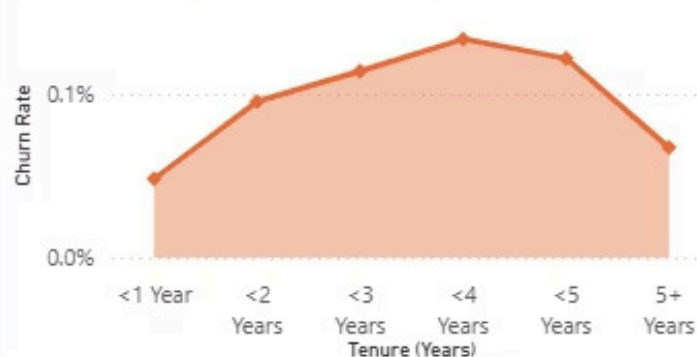
Deep-Dive Insights

Service Engagement

Customers with **2–3 services (38%)** churn the most, while those with **6+ services (20%)** show highest retention.

Customers without **Online Security or Backup** churn more frequently.

Revenue & Risk Patterns

Electronic check causes largest revenue loss (~$84K). Churn peaks around **2–3 years** tenure.

Medium-risk customers represent the highest churn count—an overlooked retention opportunity.

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Strategic Recommendations

1	**Enhance Onboarding**
	Create loyalty programs for customers in their first 6-12 months with personalized engagement.

2	**Target Senior Citizens**
	Offer simplified plans and priority support for the most vulnerable demographic.

3	**Payment Incentives**
	Encourage auto-pay and secure digital payments instead of electronic checks.

4	**Contract Optimization**
	Provide discounts for customers switching from month-to-month to yearly contracts.

5	**Cross-Sell Add-Ons**
	Bundle Online Security and Backup services to improve retention and engagement.

6	**Mid-Term Engagement**
	Focus on 2-3 year customers with renewal rewards and personalized upgrade offers.

Conclusion & Impact

The Telco Customer Churn Dashboard reveals that **contract type, tenure, payment method, and service engagement** are the strongest predictors of churn.

By implementing targeted strategies based on these insights, telecom companies can significantly reduce churn and protect an estimated **$1.67M in annual revenue**.

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