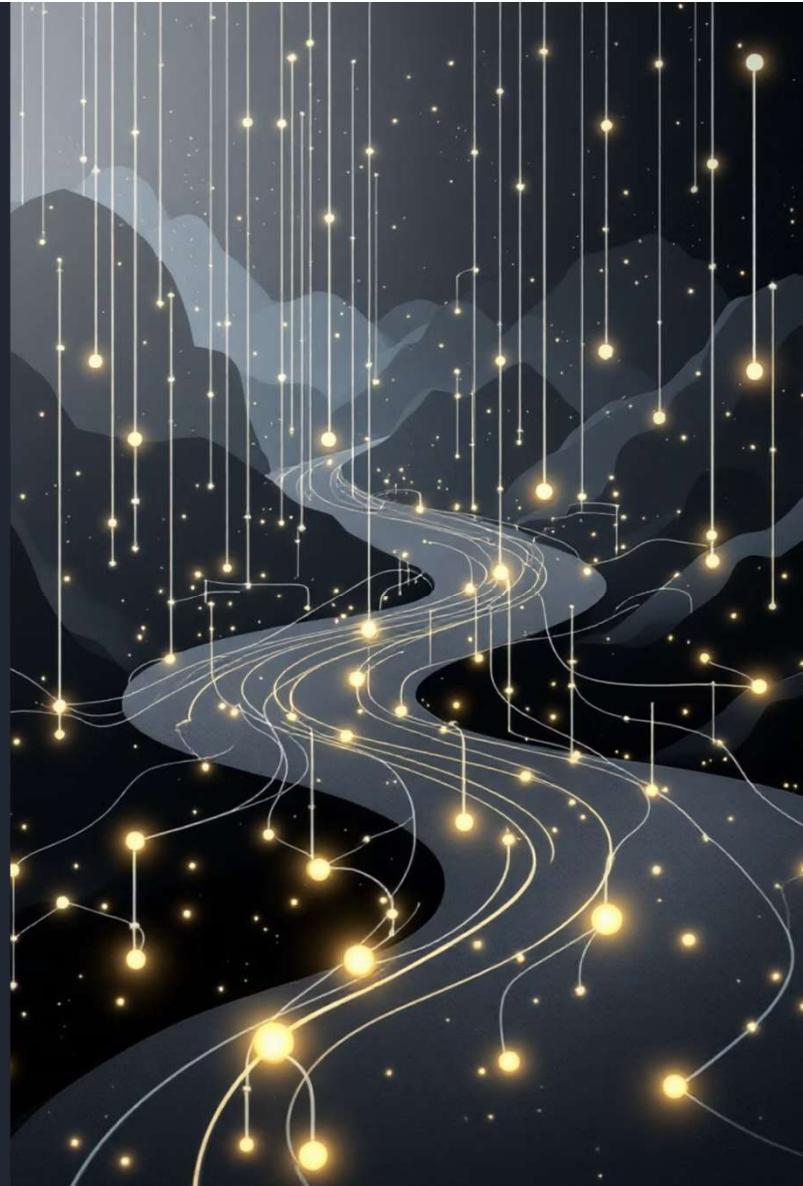


# Vodafone Churn Analysis

Understanding customer attrition patterns to drive data-driven retention strategies



PROJECT OVERVIEW

# Analyzing Customer Churn

## Objective

Identify churn patterns and high-risk customer segments to support retention strategies

## Dataset

6,441 customers across 23 features including demographics, services, billing, and support



# Ensuring Data Quality

01

## Initial Inspection

Reviewed dataset structure and content across all 23 columns

02

## Standardization

Cleaned categorical text columns, removed leading/trailing spaces

03

## Handling Blanks

Categorized unknown values, treated blanks as non-usage

04

## Feature Engineering

Created churn\_flag and tenure\_group for enhanced analysis

KEY FINDING

## Overall Churn Landscape

6,441    4,730    1,711

Total Customers

Retained

Churned

Complete dataset  
analyzed

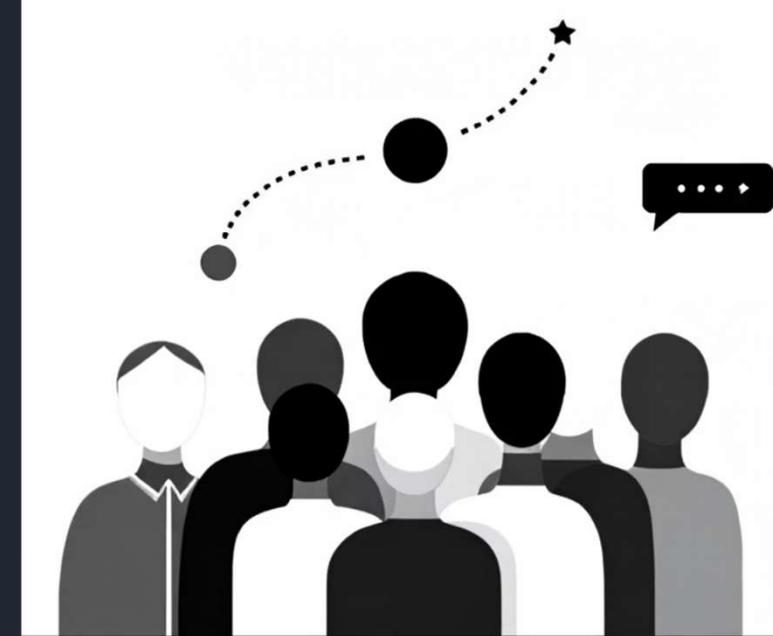
Customers staying with  
Vodafone

Customers who  
discontinued service

27%

Churn Rate

Overall attrition  
percentage



DEMOGRAPHICS

# Who's Leaving?

## Senior Citizens

Higher churn rate compared to non-senior customers

## No Dependents

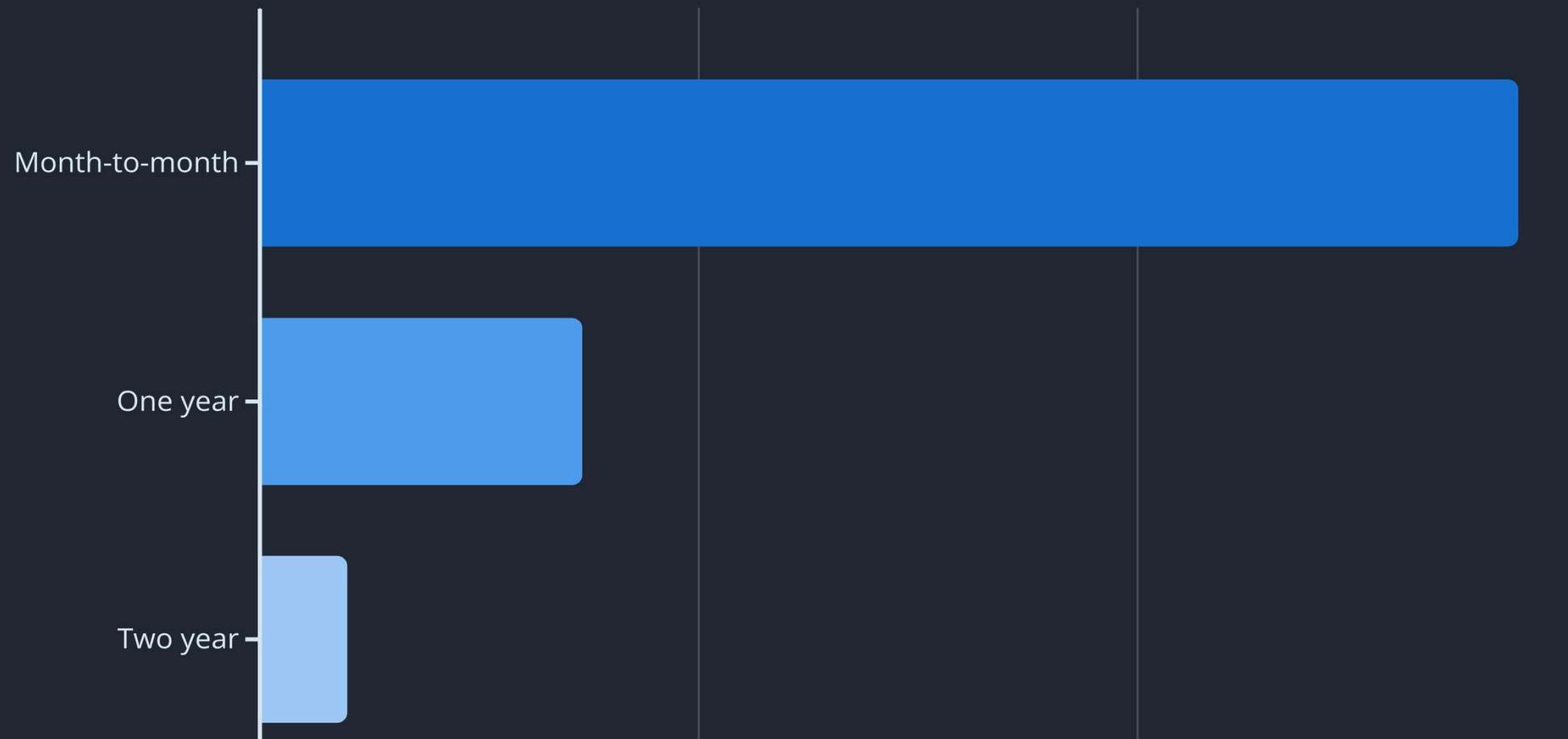
Significantly higher churn than customers with dependents

## Family Households

Stronger retention among family-oriented customers



## Contract Type Impact



## Tenure Matters



0-1 Year

Highest risk period



1-2 Years

Moderate churn



2-4 Years

Declining risk



4+ Years

Loyal customers

Early-stage customers are **5x more likely to churn** than long-term customers



#### BILLING INSIGHTS

## Payment & Pricing Patterns

### Monthly Charges

Churned: \$74.32

Retained: \$61.26

Higher monthly charges correlate with increased churn risk

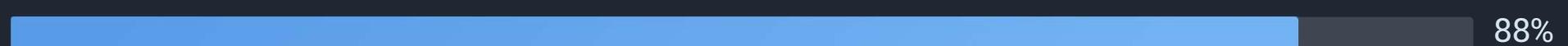
### Payment Method Risk

Electronic check users show significantly higher churn

Automatic payment methods improve retention

SUPPORT IMPACT

# Technical Issues Drive Churn



## Support Correlation

Churned customers raise 7x more technical tickets

### Churned Customers

Average: 1.15 technical tickets

### Retained Customers

Average: 0.15 technical tickets

Strong link between service issues and customer attrition

## ACTION PLAN

# Strategic Recommendations

1

## Onboarding Programs

Target first-year customers with engagement initiatives to reduce early churn

2

## Contract Incentives

Offer discounts and bundles to move customers to longer-term plans

3

## Pricing Optimization

Review high monthly charge plans to reduce price-sensitive churn

4

## Payment Migration

Promote automatic payment methods to electronic check users

5

## Support Excellence

Improve technical support quality and response times

# Dashboard

