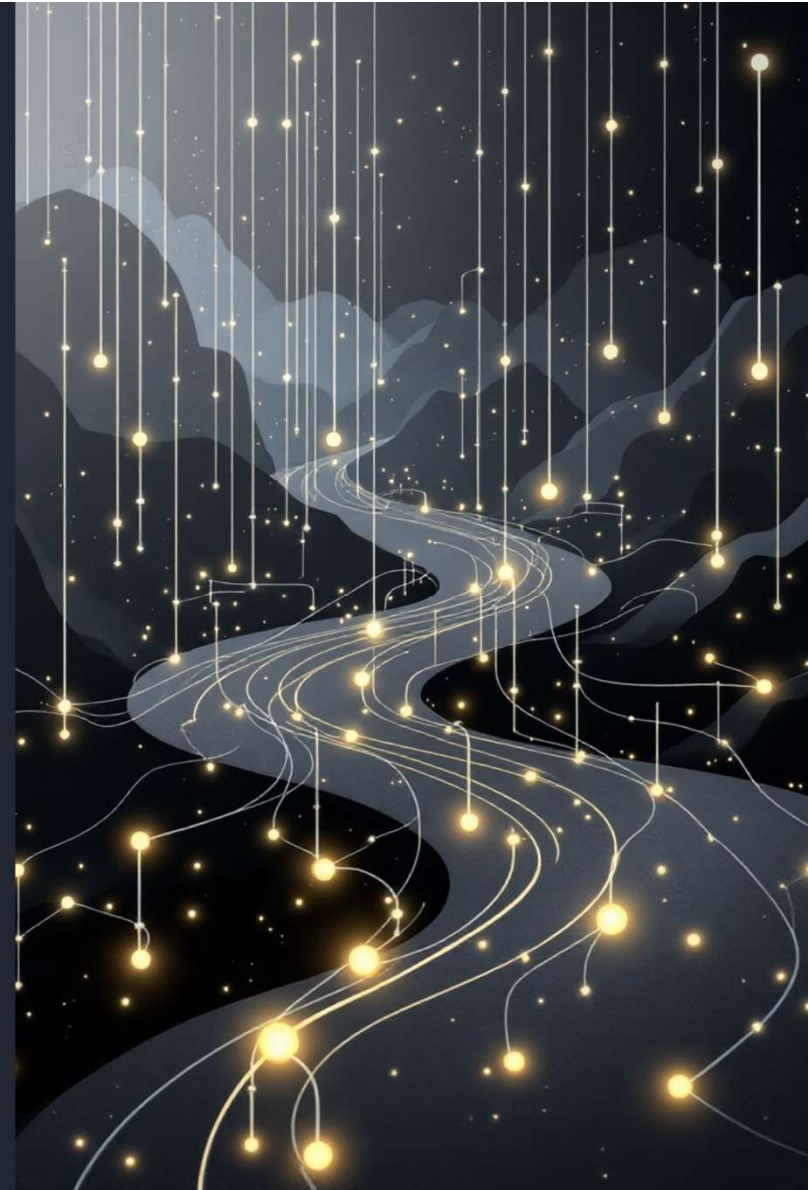


Vodafone Churn Analysis

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



DATA PREPARATION

Ensuring Data Quality

01

Initial Inspection

Reviewed dataset structure and content across all 23 columns

03

Handling Blanks

Categorized unknown values, treated blanks as non-usage

02

Standardization

Cleaned categorical text columns, removed leading/trailing spaces

04

Feature Engineering

Created churn_flag and tenure_group for enhanced analysis

KEY FINDING

Overall Churn Landscape

6,441

Total Customers

Complete dataset
analyzed

4,730

Retained

Customers staying with
Vodafone

1,711

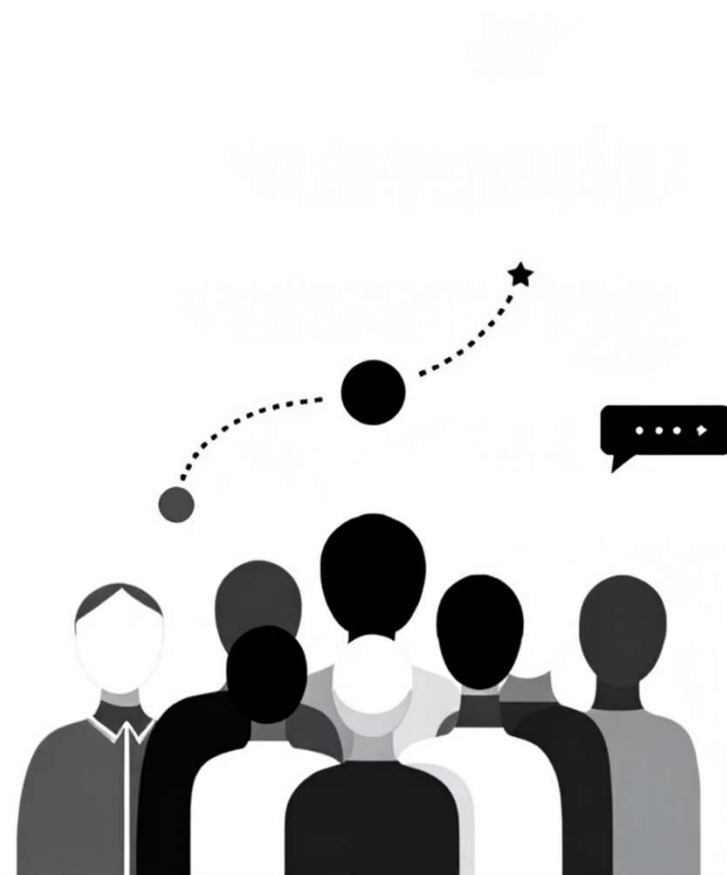
Churned

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

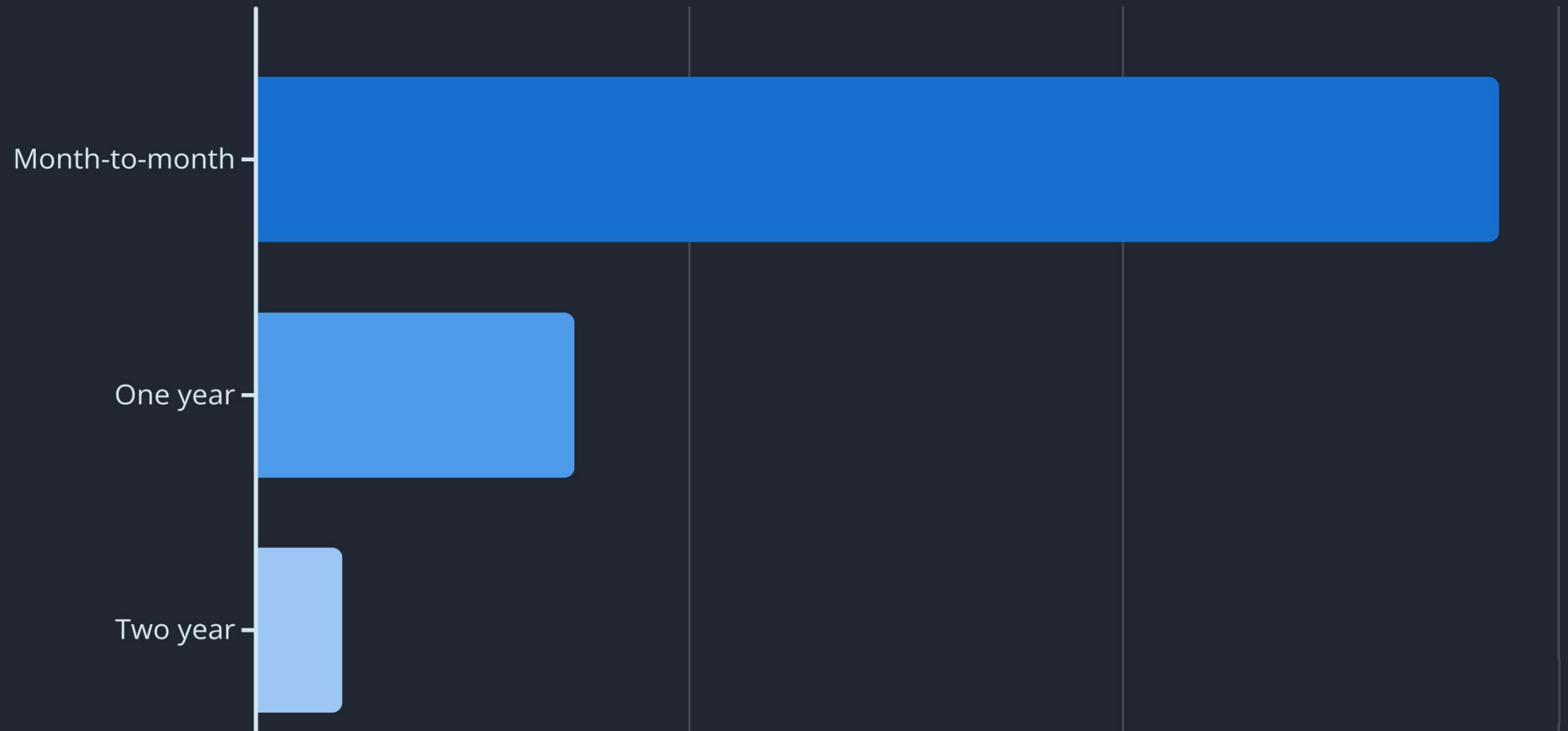
Significantly higher churn than customers with dependents

Family Households

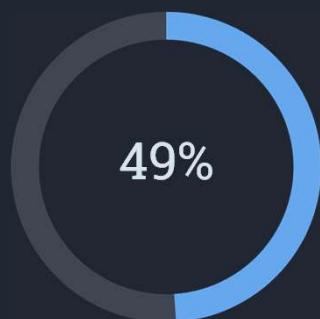
Stronger retention among family-oriented customers



Contract Type Impact

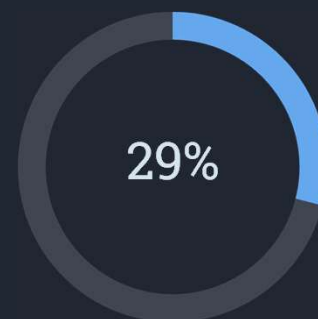


Tenure Matters



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

