Data Analyst Portfolio | 2025

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Customer Churn Analysis Dashboard (Excel)

Telecommunications Retention Study (2014-2017)

Overview

This Excel dashboard analyzes telecom customer churn to identify high-risk segments and the factors driving service discontinuation. The analysis evaluates demographics, tenure, payment methods, and service plans to uncover behavioral trends impacting retention.

Key Findings

- Overall churn: 27% of customers discontinued services, with short-tenure (<12 months) users most at risk.
- **Demographics:** Senior citizens (41.7%) churn nearly twice as often as non-seniors (23.6%).
- Payment method: Month-to-month contracts show the highest churn across all payment types; electronic check users churn 63.7%, while bank transfer and mailed check customers churn the least.
- Internet services: Fiber-optic plans exhibit the highest churn (~42%) vs. DSL (~19%), suggesting pricing or reliability issues.
- Add-ons: Customers lacking security, backup, or device protection churn up to 50% more.

Recommendations

- Incentivize multi-year or auto-pay contracts to reduce churn tied to manual billing and perceived payment friction.
- Implement **first-year loyalty discounts** and onboarding improvements to stabilize early-tenure customers.
- Review fiber-optic pricing and reliability to address dissatisfaction.
- Expand bundled add-on offerings (e.g., Fiber + Online Security or Streaming Add-Ons) to increase stickiness.
- Introduce senior-friendly billing and support for older demographics.

Skills Demonstrated

- Data Cleaning & Preparation (Excel)
- KPI Calculation & Visualization (Churn %, Tenure Distribution)
- Dashboard Design & Insight Communication
- Business Recommendations for Retention Strategy