



# Customer Retention Analysis Dashboard



## Project Overview

The telecom industry faces high customer attrition rates, impacting revenue and growth. This project utilizes **Microsoft Power BI** to analyze customer behavior, identify key churn drivers, and recommend data-driven retention strategies.

The analysis focuses on a dataset of **7,043 customers**, transformed into a multi-page interactive dashboard providing insights into tenure, demographics, and service performance.



## Key Business Insights

- **High Churn Rate:** The overall churn rate is **26.5%**, indicating a critical need for intervention.
- **Risk by Contract:** Customers on **Month-to-Month contracts** are the most volatile, with a **42.7% churn rate**.
- **Payment Friction:** **Electronic Check** users show a significantly higher churn rate (**45.3%**) compared to auto-pay users.
- **Pricing Sensitivity:** Churn spikes noticeably when monthly charges exceed **\$80**.



## Tools & Technologies

- **Power BI Desktop:** Multi-page Dashboarding, Page Navigation, Bookmarks.

- **Power Query:** Data transformation and cleaning (ETL).
- **DAX (Data Analysis Expressions):** Calculated measures for Churn Rate and conditional logic.
- **Data Modeling:** Created 'Tenure Groups' for drill-down analysis.

## Project Structure

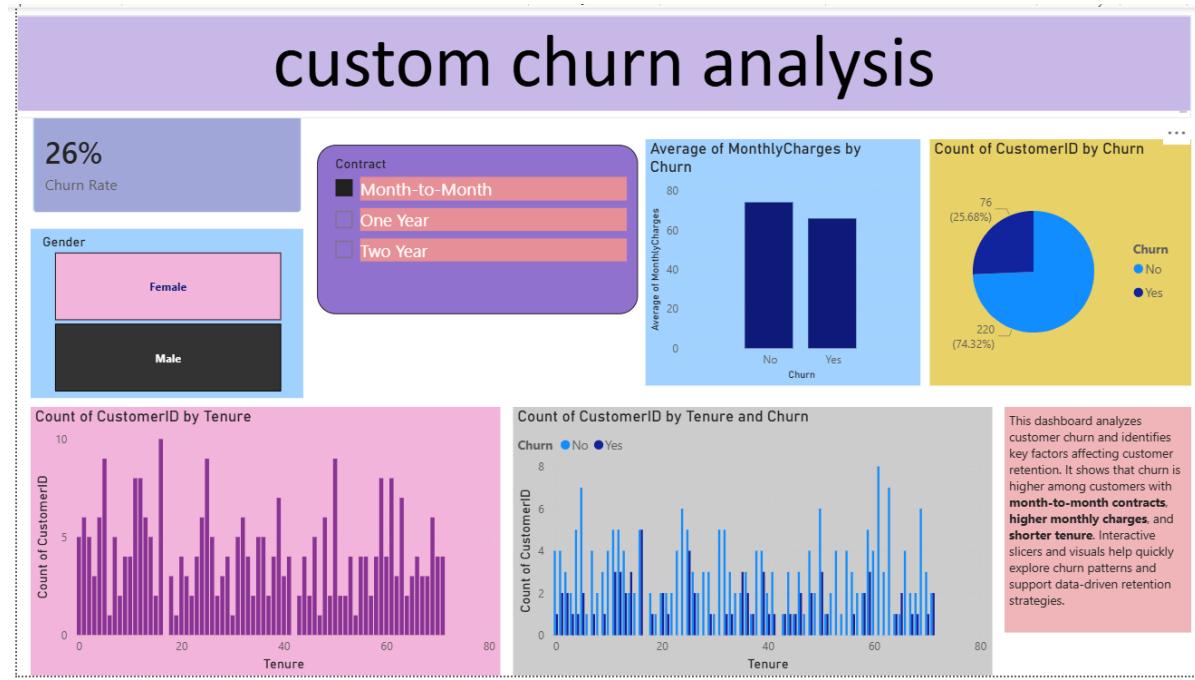
- Customer Retention Analysis.pbix: The source Power BI file containing the 3-page report, data models, and drill-down features.
- Project Report.pdf: A detailed executive summary and strategic recommendations.
- Dataset: IBM Telco Customer Churn Data.

## Dashboard Screenshots

### 1. Executive Summary

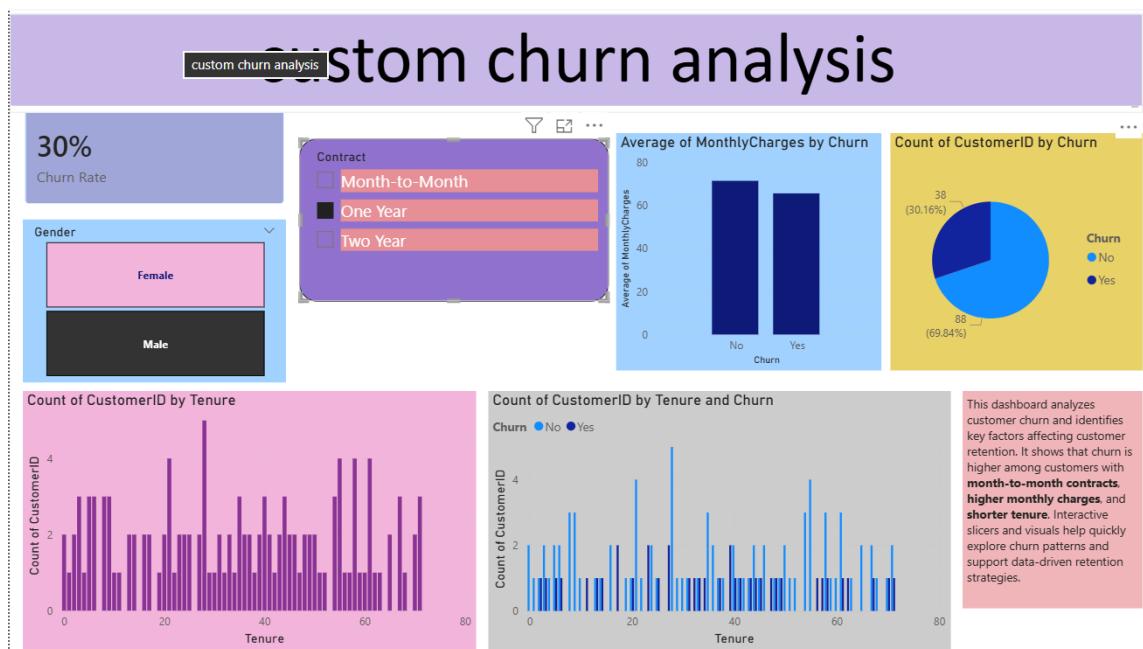
*A high-level overview for management, highlighting key KPIs and the primary drivers of*

*churn.*



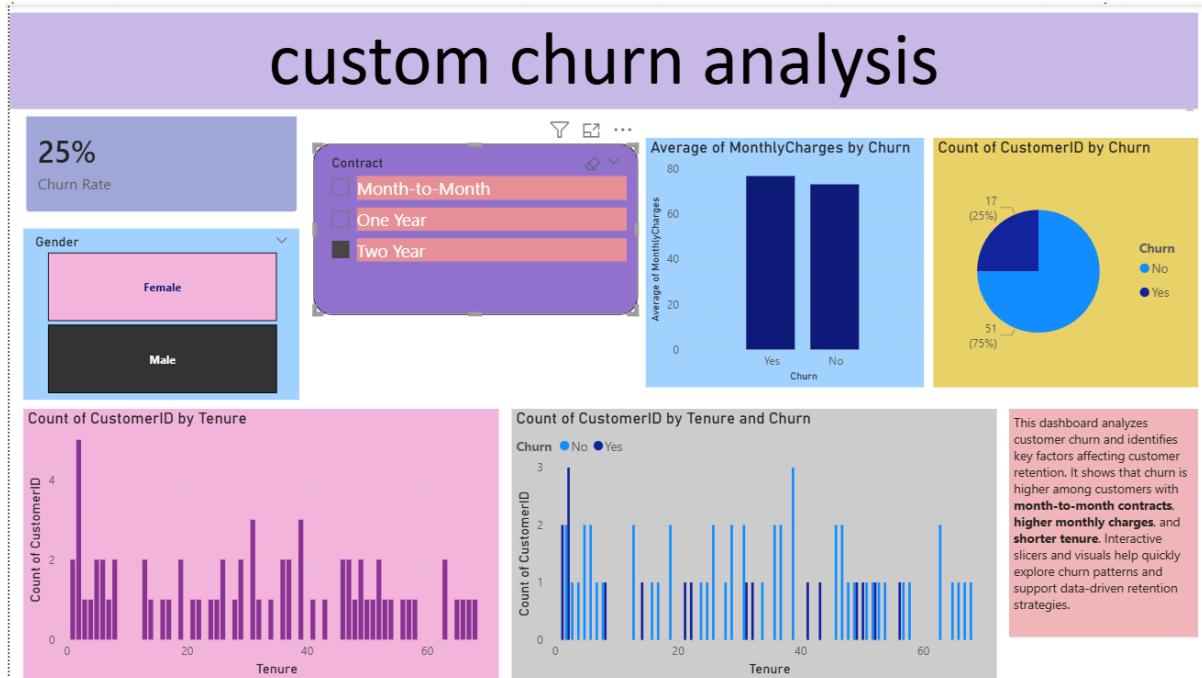
## 2. Demographics & Drill-Down

*Detailed analysis of customer profiles (Gender, Seniority, Partners). Includes a drill-down feature to analyze tenure groups vs. individual months.*



### 3. Services & Account Analysis

*Investigation into how specific products (Internet, Tech Support, Streaming) and billing preferences impact retention.*



### 💡 Recommendations

Based on the analysis, the following actions are proposed:

- 1. Targeted Migration:** Offer a 15% discount to move Month-to-Month users to 1-Year contracts.
- 2. Incentivize Auto-Pay:** Provide a one-time bill credit for switching from Electronic Check to Credit Card Auto-Pay.
- 3. High-Value Retention:** Implement a "Price Lock" guarantee for loyal customers paying >\$80/month.

4. **Service Intervention:** Target Fiber Optic users with satisfaction surveys, as they show disproportionately high churn.
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