Customer Retention and Churn Analysis Report

A. Project Overview

Customer churn is one of the most critical challenges faced by subscription-based businesses. Retaining existing customers is more cost-effective than acquiring new ones. This project focuses on analyzing customer retention and churn patterns using the Telco Customer Churn dataset and Power BI.

B. Objectives
- Analyze churn rates and retention trends
- Identify key retention drivers and churn reasons
- Study customer cohorts using tenure groups
- Analyze customer lifetime value patterns
- Provide actionable recommendations to reduce churn

C. Dataset Description

The dataset contains approximately 7,000 customer records with demographic information, service usage, contract details, payment methods, charges, and churn status.

D. Tools & Technologies
- Power BI Desktop
- Power Query
- DAX

E. Data Cleaning & Preprocessing

Data was cleaned using Power Query by fixing headers, handling missing values, correcting data types, and creating new columns such as tenure groups and senior citizen categories.

F. Key Measures
- Total Customers
- Churned Customers
- Retained Customers
- Churn Rate (%)
- Average Monthly Charges
- Total Revenue

G. Dashboard Insights
- New customers show higher churn compared to long-term customers
- Month-to-month contracts have the highest churn

- Customers without tech support are more likely to churn
- Electronic check payment method shows higher churn
- Long-tenure customers generate higher lifetime value

H. Recommendations
- Promote long-term contracts with incentives
- Improve onboarding for new customers
- Bundle tech support with services
- Encourage automatic payment methods
- Target high-risk customers with retention campaigns

I. Conclusion
This project demonstrates how Power BI can be used to analyze customer churn and provide actionable business insights to improve retention.