

## CUSTOMER CHURN ANALYSIS FOR A TELECOMMUNICATION COMPANY

### ✓ **Task 1: Data Connection:**

The provided csv file has been successfully loaded in Power BI.

### ✓ **Task 2: Data Transformation:**

- The Datatypes for the specified columns have been adjusted and corrected.
- Values of few Binary variables have been converted from Yes/No to 1/0.
- Bins created to facilitate creation of histogram for Tenure and Monthly Charges.

### ✓ **Task 3: Creating Dashboard Components:**

#### **a. Creating KPI for Churn Rate**

#### **b. Customer Demographics:**

- i) Pie chart to show the share of Customers by Gender
- ii) Matrix to show the impact of Gender, Partner and Dependents on Churn Rate
- iii) Bar chart showing count of dependent and independent customers

#### **c. Customer Tenure Analysis:**

Distribution of Customer Tenure in months is visualized using Histogram

#### **d. Churn Analysis:**

- i) Clustered Column Chart created to visualize Churn Rate by Monthly Charges
- ii) Stacked Column Chart created to display the percentage of churned – not churned customers based on the contract type
- iii) A Column Chart has been created to know the Churn Rate among customers choosing different types of Internet Service
- iv) A Matrix shows the Churn Rate by Internet Service and Contract.

### **Insights from the Visuals:**

- The split between males and females appears relatively even, with slightly more females than males.
- When "Male" is selected in the "Share of Customers by gender" pie chart, the churn rate drops to 26.16%. When "Female" is selected, the churn rate increases to 26.92%.
  - The male customers have a slightly lower and female customers have a slightly higher churn rate than the overall average.
- When "DSL" is selected in "Count of Churn Rate by Internet Service" the churn rate jumps significantly to 41.89%, suggesting that customers with DSL internet service have a much

higher propensity to churn. Similarly, “Fiber Optic” customers are significantly less likely to churn.

- The "No Dependents" group consistently shows lower churn across both genders.
- A significant peak is observed for customers between 0-6month tenure, indicating a large number of new customers, and the count of customers generally decreases as tenure increases.
- The churn rate generally increases with higher monthly charges and this trend is observed regardless of the gender.
- Customers with Fiber Optic internet service have the highest churn rate.
- Month-to-Month contracts have a substantially higher churn rate across all internet service types.



### **Focus:**

- The quality of service must be upgraded for Fiber Optics, to retain more customers- it appears that the customers are not getting adequate service at the ongoing rate for this particular category.
- Encourage customers to sign up for one-year or two-year contracts, perhaps through discounts or bundled offers, as this significantly reduces churn likelihood.
- Given the high count of 0-6month tenure customers, optimize the onboarding process to ensure new customers are satisfied and retained beyond the initial month.
- Review the pricing strategies, especially for higher monthly charge tiers, as these customers are more prone to churn.