CUSTOMER CHURN RATE ANALYSIS USING POWER BI

STEP 1) The first step is to check the data. We will accomplish this by establishing two measures.

Count of customer IDs - Number of Customers = `COUNT('Databel - Data'[Customer ID])`
Count of unique customer IDs - `Number of Unique Customers = DISTINCTCOUNT('Databel - Data'[Customer ID])`

This check will assist us ensure that there are no duplicate entries, which will impair our analysis. Both measures will be displayed using a card representation.

STEP 2) The most relevant metric for this dataset is churn rate. Let us construct this measure using the dataset's churn label column and depict it with a card. However, you'll see that the churn column contains string values. Let us convert them to binomial for easier processing.

Binomial conversion - `Churned = IF('Databel - Data'[Churn Label] = "Yes",1,0)`

Number of churned customers = `Number of churned customers = CALCULATE(COUNTROWS('Databel - Data'),'Databel - Data'[Churned]=1)`

Churn rate - `Churn rate = ([Number of churned customers]/[Number of unique customers])`

From here, we will begin exploring relationship of different attributes of dataset with churn rate.

STEP 3) First, let's look at the many causes of client churn. Use a bar chart to visualize churners by displaying the number of customers and the reason for churn.

STEP 4) Next, we will visualize state wise churn rate using map visualization.

STEP 4) For analyzing demographics related information. We have created a new “Demographics” column to classify group population in three categories.

Demographics - `Demographics = SWITCH(TRUE(), 'Databel - Data'[Under 30]="Yes","Under 30",'Databel - Data'[Senior]="Yes","Senior","Other")`

STEP 5) The customer age in dataset varies from over a large range. For better visualization, we will create age bins and analyze churn rate variations based on age groups.

Age bins - `Age Bin =`

```
SWITCH (
    TRUE (),
    'Databel - Data'[Age] <= 20, "Under 20",
    'Databel - Data'[Age] <= 30, "20-30",
    'Databel - Data'[Age] <= 40, "31-40",
    'Databel - Data'[Age] <= 50, "41-50",
    'Databel - Data'[Age] <= 60, "51-60",
    "Over 60"
)
```

STEP 6) Databel also offers group discount. It will be interesting to discover how the group size and offered discount impacts churn rate.

STEP 7) Next, we will try to draw insights based on how customer's contract type and gender distribution looks like for churn rate.

STEP 8) Majority of customers have subscribed to unlimited data plan. We will explore usage of customers to find out if the plan is working out for customers and its relation to churn rate.

STEP 9) The dataset also has information about customer's international plan. We will analyze behavior of customers who call internationally and how it influences their loyalty.

STEP 10) Lastly, we analyzed impact of customer's account length, payment method and contract type in relation to churn rate.

The overview file contains final insights for different significant attributes contributing to customer's churn rate.