Customer Retention Analysis

Problem statement

Customers in the telecom industry are hard-earned:Telecom company don't want to lose them

- The retention department is here to **get customers back in case of termination.**
- **To know in advance who is at risk.**
- **To know more about customers**

Project Goal

- Create a dashboard using KPIs that reflect customer demographics and insights.
- Explain findings from dashboard and suggest ways to avoid churning in future.
- Create a dashboard for the call centre manager about customer retention.

Inputs

- Customers who left within the last month.
- Services each customer has signed up for: phone, multiple lines, internet, online security, online backup, device protection, tech support, and streaming TV and movies
- Customer account information: how long as a customer, contract, payment method, paperless billing, monthly charges, total charges and number of tickets opened in the categories administrative and technical.
- Demographic info about customers-gender, age range, and if they have partners and dependents.
- Churn-Whether they stopped using the product or service or remained active.

    1. **Yes**-stopped using the service
    2. **No**- still a customer.

- **numAdminTickets** → The number of **administrative tickets** a customer has opened. These could relate to billing issues, account modifications, contract changes, or other non-technical inquiries.
- **numTechTickets** → The number of **technical support tickets** a customer has raised. These are likely related to service disruptions, troubleshooting, or other technical issues.

Customer Retention Analysis

- **tenure** → The length of time a customer has been with the company. This is usually measured in **months** and helps determine customer loyalty or the likelihood of churn.
- Indicators of **dissatisfaction** and **potential churn**,
    - higher number of tickets
    - shorter tenure

SQL QUEIRING

1.churned customers:

```
select count(*) as Churned_Customers
from churndata
where churn="YES"
```

churned_customers
1869

2.Active customers

```
select count(*) as Active_customers
from churndata
where churn="No"
```

Active_customers
5163

3.churned custoemers vs number of admin tickets

```
select sum(numAdminTickets) as Tot_AdminTicktsof_churned_customers
from churndata
where churn="Yes"
```

Tot_AdminTicktsof_churned_customers
885

4.churned customers vs number of tech tickets

Customer Retention Analysis

```
select sum(numTechTickets) as Tot_TechTicketsof_churned_customers
from churndata
where churn="Yes"
```

	Tot_TechTicketsof_churned_customers
▶	2173

- Active customers has ,

	Tot_TechTicketsof_Active_customers
▶	782

	Tot_TechTicketsof_Active_customers
▶	2736

	senior_citizens_who_churned
▶	476

- 25.64% of churned customers are Senior citizens.so most of the ***churned customers*** are ***Not senior citizens***.

- <u>Number of admin tickets raised by the churned senior citizens</u> ,

	sum(numAdminTickets)	count(SeniorCitizen)
▶	193	476

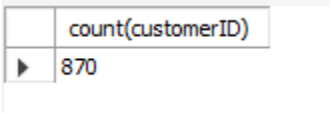
- <u>Number of Tech tickets raised by the churned senior citizens</u> ,

```
select sum(numTechTickets),count(SeniorCitizen)
from churndata
where churn="Yes" and SeniorCitizen=1
group by churn
```

	sum(numTechTickets)	count(SeniorCitizen)
▶	658	476

Customer Retention Analysis

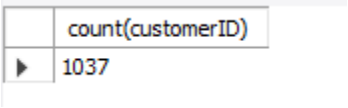
- Tenure:
  Churned customers who have more than 1year [12 month] tenure:



	count(customerID)
▶	870

Churned customers who has been customer less than 1 year:

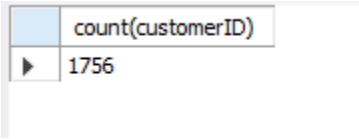
```
select count(customerID)
from churndata
where churn="Yes" and tenure<=12
```



	count(customerID)
▶	1037

- Churned customers who has internet service

```
select count(customerID)
from churndata
where churn="Yes" and InternetService<>"No"
```



	count(customerID)
▶	1756

Data Visualization and Analysis using Power BI

Total calls = COUNT(Table1[Call Id])
Calls Answered = CALCULATE(COUNTROWS(Table1),Table1[Answered (Y/N)]="Y")
Calls Abandonded = CALCULATE(COUNTROWS(Table1),Table1[Answered (Y/N)]="N")
Calls Resolved = CALCULATE(COUNTROWS(Table1),Table1[Resolved]="Y")

Following are the key findings from the data analysis:

Out of the total customers, 1,869 have churned, while 5,174 remain active.
Churned customers have raised 3,058 support tickets in total.
The percentage of churned customers who raised tickets is 94.48% (1,766 out of 1,869).

Customer Retention Analysis

Technical issues are a major concern, as 2,173 of the tickets were tech-related, compared to 885 administrative tickets.
870 churned customers (46.55%) had a tenure of less than one year.
Among churned customers, 93.95% had internet service, 90.90% had phone service, and 80% had both.

Conclusions

Reduce Support Ticket Volume
The high ticket rate among churned customers indicates dissatisfaction. Addressing technical issues proactively and improving support efficiency may help in reducing churn.

Focus on New Customers
Since 55.55% of churned customers had a tenure of less than one year, improving the onboarding experience and providing better early-stage support could enhance customer retention.