

## CUSTOMER RETENTION

Find interactive Power BI dashboard here: [Dashboard](#)

**Problem:** The Telecom Retention Manager has arranged a meeting with the partner at PwC to address critical points related to customer retention. Currently, churning customers were contacted after they terminated the contract. The manager seeks a proactive strategy, wanting to identify customers at risk beforehand. Additionally, there is a desire for comprehensive insights into customers, presented visually for easy comprehension by management.

**Objectives:** The purpose of this analysis is to create a Customer Retention Dashboard in Power BI for the Customer Retention Manager that reflects relevant Key Performance Indicators (KPIs) and metrics to:

- Self-exploratory the customer demographics and insights.
- Actively approach who is at risk with the risk level of specific customer
- Contain metrics and plots related to a single area of business for discussing with higher managers and generating further analysis.
- Based on finding recommend improving customer retention.

### Dataset:

The tabulation below shows the metadata of Churn dataset:

File name	02 Churn-Dataset
Format	.xlsx
Size	772KB
Fields	23
Entities	7043

The tabulation below shows the Churn table with its field's names and their description:

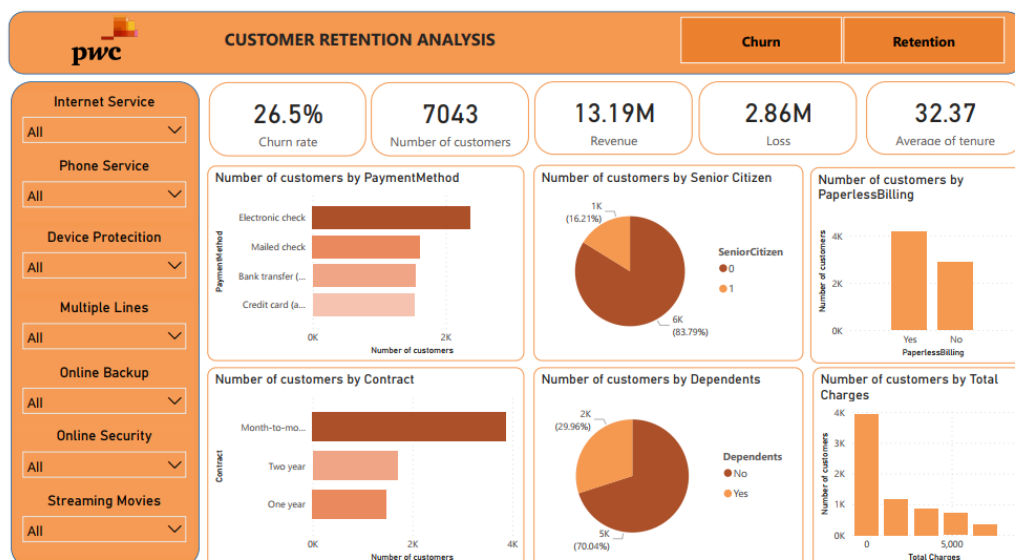
Field Name	Description	Data Type
customerID	Represents the unique number of the customer in the dataset	Text
gender	Describes the gender of the customer	Text
SeniorCitizen	Describes if the customer is a senior citizen	Text
Partner	Describes if the customer has a partner	Text

Field Name	Description	Data Type
Dependents	Describes if the customer has a dependent	Text
tenure	Describes how long as a customer	Whole number
PhoneService	Describes if the customer has registered a phone service	Text
MultipleLines	Describes if the customer has registered multiple lines	Text
InternetService	Describes if the customer has registered for Internet service	Text
OnlineSecurity	Describes if the customer has registered for online security	Text
OnlineBackup	Describes if the customer has registered for online backup	Text
DeviceProtection	Describes if the customer has registered for device protection	Text
TechSupport	Describes if the customer has registered for tech support	Text
StreamingTV	Describes if the customer has registered to stream tv	Text
StreamingMovies	Describes if the customer has registered to stream movies	Text
Contract	Describes the length of the contract of the customer	Text
PaperlessBilling	Describes if the customer has registered for paperless billing	Text
PaymentMethod	Describes the payment method of the customer	Text

Field Name	Description	Data Type
MonthlyCharges	Represents the monthly charge incurred by the customer	Decimal number
TotalCharges	Represents the total charge incurred by the customer	Decimal number
numAdminTickets	Represents the number of admin tickets opened by the customer	Whole number
numTechTickets	Represents the number of tech tickets opened by the customer	Whole number
Churn	Describes if the customer is at risk of churn	Text

- Relevant information about the Churn dataset:
  - 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

## Analysis and Insights

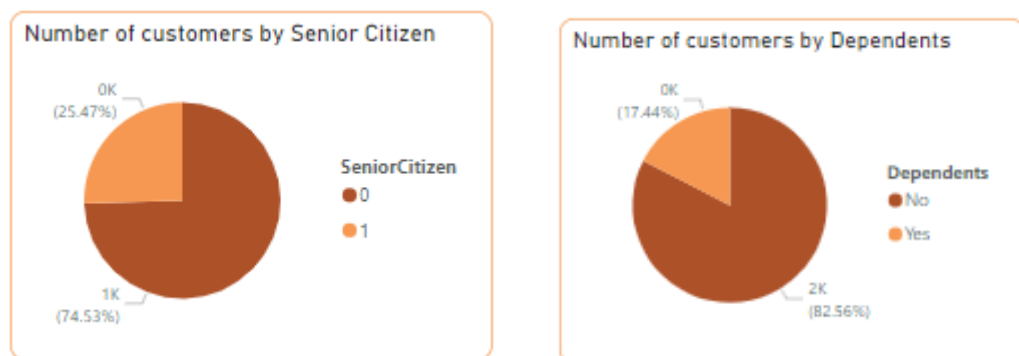


### Customer Churn Overview

- The total number of customers is 7043, 1869 of which churned (26,5%). *Revenue lost* due to churn is \$2.86M. The *churn rate* highlights the need for proactive measures to address customer concerns and improve retention strategies to mitigate further churn in the future.
- The *average tenure* for existing customers is around 38 months, but for those who have churned, the average period is only 18 months. This difference underscores the importance of prioritizing strategies aimed at retaining customers to extend their tenure.
- The *average monthly charges* for customers who have churned were significantly higher, amounting to approximately \$74.44, in contrast to the average monthly charges of \$61.31 for customers who have not churned. This suggests that pricing and value perception play crucial roles in customer retention efforts.

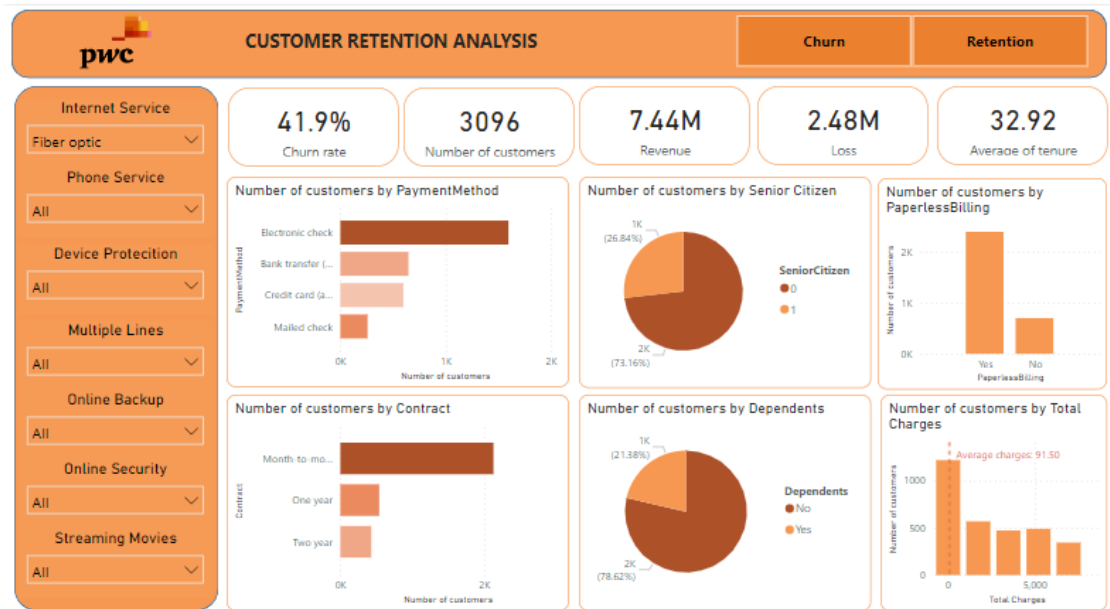
### Customer Demographic Information

- Gender is not the major factor of churning as churn rate of male and female is almost same.
- Among those who terminated the company services, 74.53% belonged to the younger age group, while 25.47% were classified as senior citizens. The majority of customers who discontinued services did not have dependents. This indicates a higher rate of churn among younger customers without dependents and the need to address their unique needs and preferences for enhancing customer retention.



### Service Subscriptions

- Among Internet services, there might be some issues with Fiber Optic (41.9% churn rate). Thus, the company should inspect the system, build strong technology & infrastructure to offer fast, quality, reliable digital experience. Another possible reason for high churn rate in Fiber Optic service could be high monthly charge (\$91.5 on average).



- Customers that do not subscribe to Online Security and Premium Tech Support are more likely to churn. I suggest company could provide 1-month free trial for Security and Tech Support subscription to existing customer to improve customer experience and increase retention rate

### Churn Customer Account Information

- Customers taking longer contracts tend to be more loyal and stay with the company. A significant number of customers with Month-to-Month contracts terminated the services (54,6%). In contrast, customers with Two Years contracts exhibited the lowest churn rate (7,2%). This indicates the potential benefits of longer contract terms in reducing customer churn. Company should come with more attractive long-term subscription plans rather than focusing on monthly plans
- There is high percentage of customers pay with Electronic check, but 45,3% of them churned. This means the company need to address any issues related to the Electronic check mode of payment. Other modes of payment seem to be working fine but the technical team still needs to look into them.