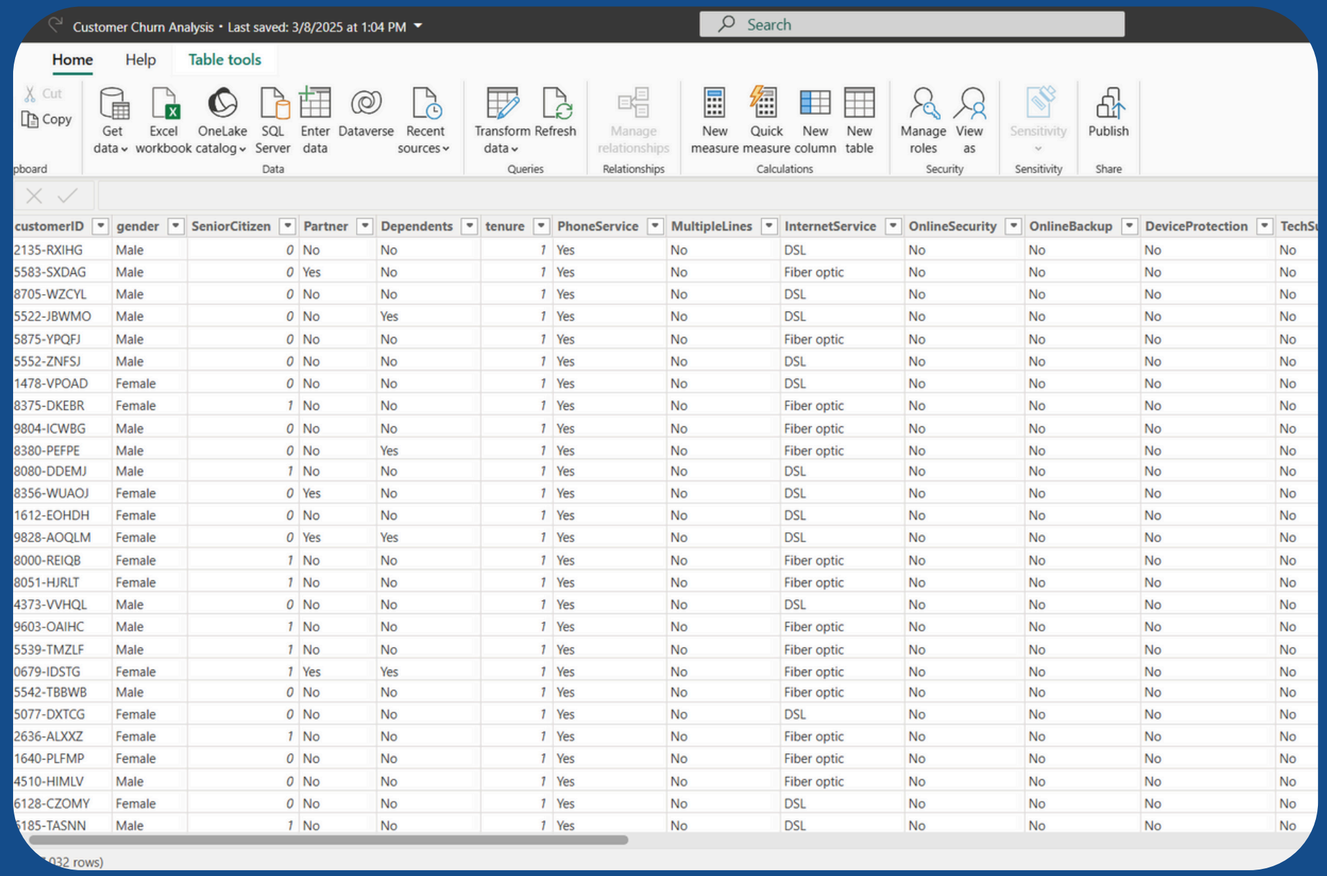
Forage Virtual Internship

PWC Churn Analysis Power BI Dashboard

Data Introduction

The dataset provide is a **telecommunications customer churn dataset** containing customer demographics, service details (tenure, internet, phone, extra services), contract/billing info (contract, payment, charges), support tickets, and the final churn status.



customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	OnlineBackup	DeviceProtection	TechS
2135-RXIHG	Male	0	No	No	1	Yes	No	DSL	No	No	No	No
5583-SXDAG	Male	0	Yes	No	1	Yes	No	Fiber optic	No	No	No	No
8705-WZCYL	Male	0	No	No	1	Yes	No	DSL	No	No	No	No
5522-JBWMO	Male	0	No	Yes	1	Yes	No	DSL	No	No	No	No
5875-YPQFJ	Male	0	No	No	1	Yes	No	Fiber optic	No	No	No	No
5552-ZNFSJ	Male	0	No	No	1	Yes	No	DSL	No	No	No	No
1478-VPOAD	Female	0	No	No	1	Yes	No	DSL	No	No	No	No
8375-DKEBR	Female	1	No	No	1	Yes	No	Fiber optic	No	No	No	No
9804-ICWBG	Male	0	No	No	1	Yes	No	Fiber optic	No	No	No	No
8380-PEFPE	Male	0	No	Yes	1	Yes	No	Fiber optic	No	No	No	No
8080-DDEMJ	Male	1	No	No	1	Yes	No	DSL	No	No	No	No
8356-WUAOJ	Female	0	Yes	No	1	Yes	No	DSL	No	No	No	No
1612-EOHDH	Female	0	No	No	1	Yes	No	DSL	No	No	No	No
9828-AOQLM	Female	0	Yes	Yes	1	Yes	No	DSL	No	No	No	No
8000-REIQB	Female	1	No	No	1	Yes	No	Fiber optic	No	No	No	No
8051-HJRLT	Female	1	No	No	1	Yes	No	Fiber optic	No	No	No	No
4373-VVHQL	Male	0	No	No	1	Yes	No	DSL	No	No	No	No
9603-OAIHC	Male	1	No	No	1	Yes	No	Fiber optic	No	No	No	No
5539-TMZLF	Male	1	No	No	1	Yes	No	Fiber optic	No	No	No	No
0679-IDSTG	Female	1	Yes	Yes	1	Yes	No	Fiber optic	No	No	No	No
5542-TBBWB	Male	0	No	No	1	Yes	No	Fiber optic	No	No	No	No
5077-DXTCG	Female	0	No	No	1	Yes	No	DSL	No	No	No	No
2636-ALXXZ	Female	1	No	No	1	Yes	No	Fiber optic	No	No	No	No
1640-PLFMP	Female	0	No	No	1	Yes	No	Fiber optic	No	No	No	No
4510-HIMLV	Male	0	No	No	1	Yes	No	Fiber optic	No	No	No	No
6128-CZOMY	Female	0	No	No	1	Yes	No	DSL	No	No	No	No
5185-TASNN	Male	1	No	No	1	Yes	No	DSL	No	No	No	No

Dashboard Objective

The objective of this dashboard is to **monitor and analyze customer churn** by providing detailed insights into customer profiles, contract and billing information, service usage, and support ticket activity. It is designed to help businesses understand churn behavior, measure financial impact, and develop data-driven strategies to enhance customer retention.

Dashboard Overview

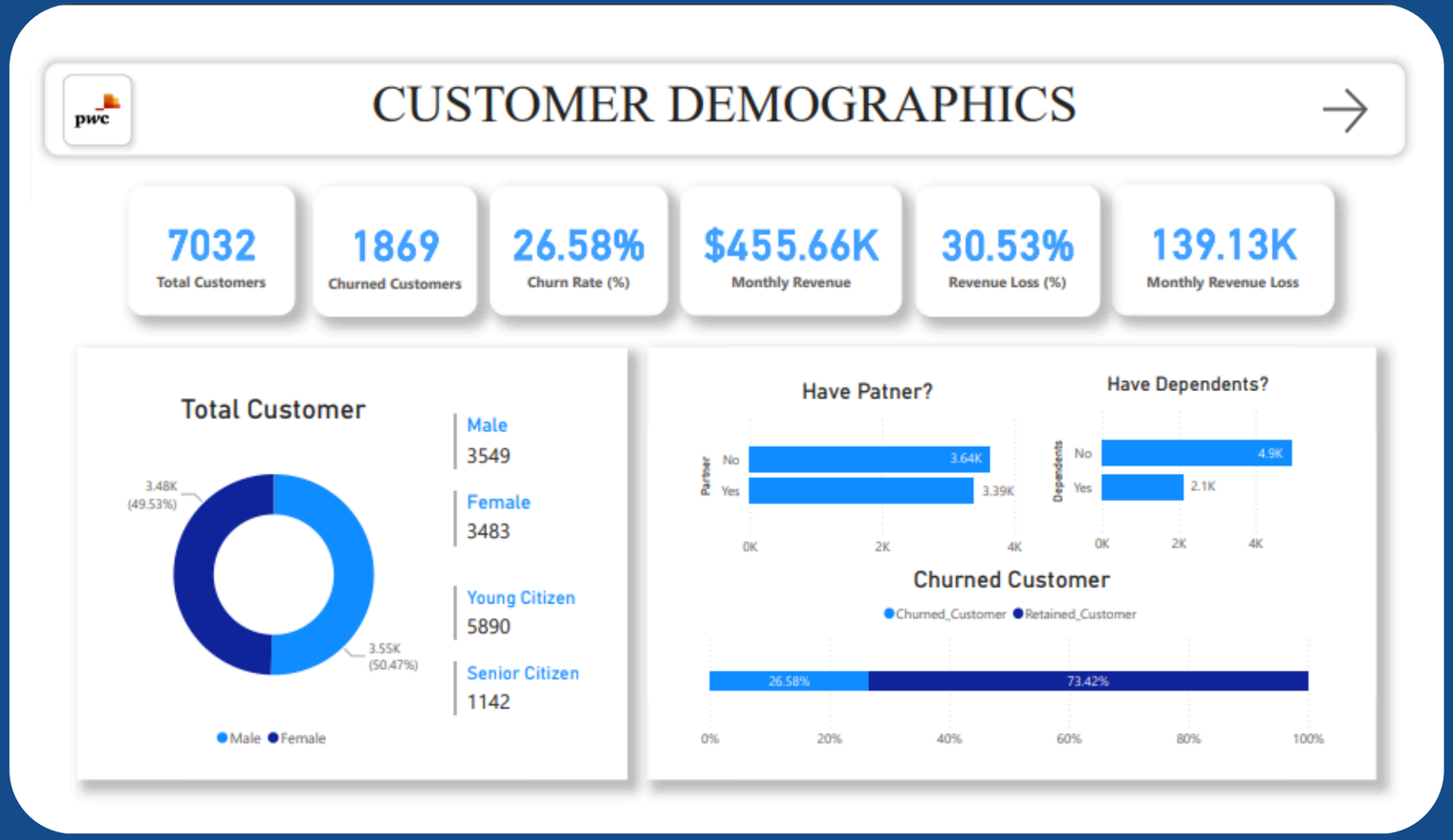
Customer Churn Analysis Dashboard

Explore customer behavior through three main sections:

- Customer Demographic
- Account Details
- Customer Subscriptions

Navigate easily to uncover key insights about churn patterns and customer retention strategies.

Dashboard Overview

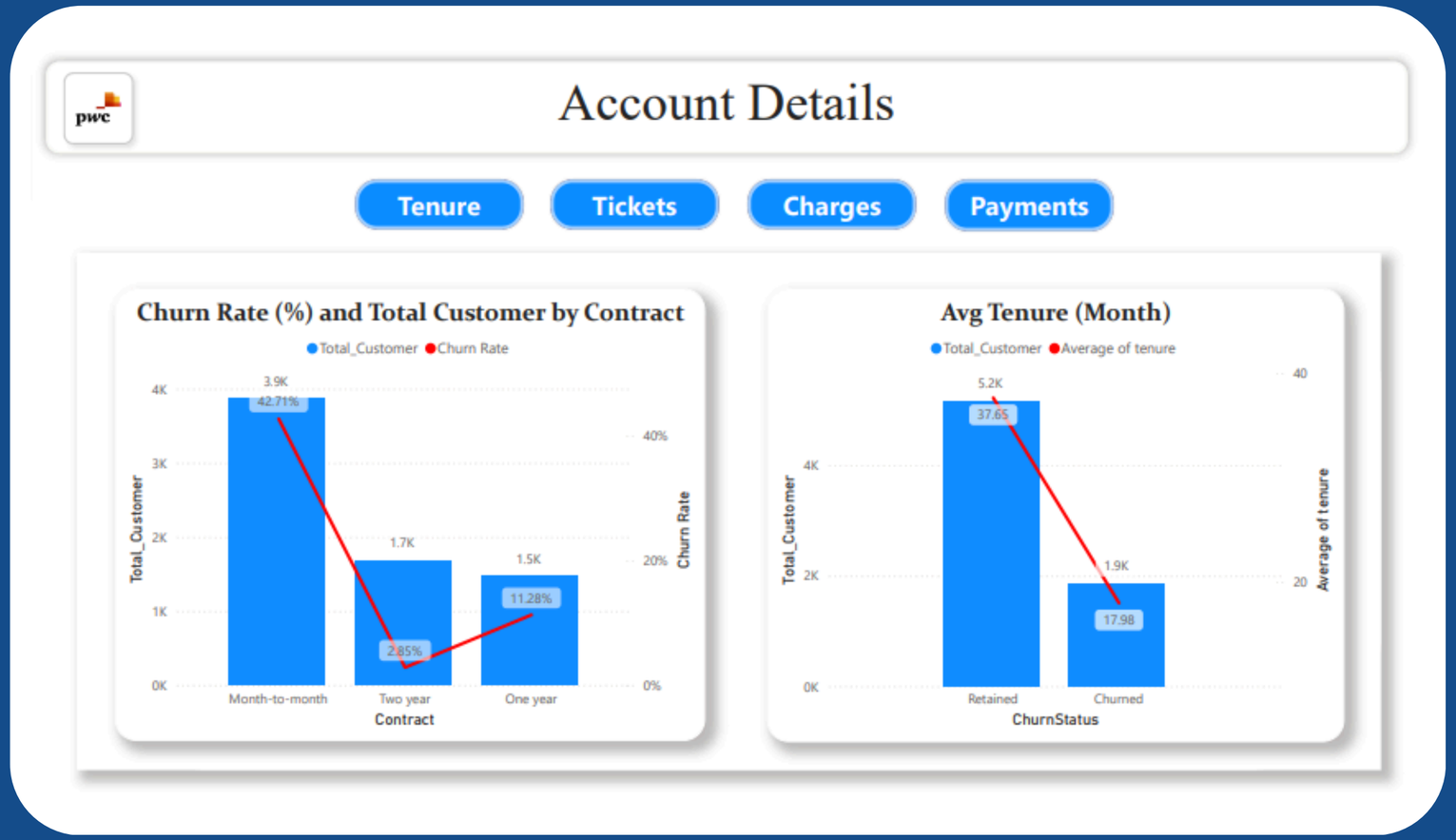


Customer Demographics Section

- A comprehensive view of churn metrics
- Total number of customers
- Churn rate analysis
- Monthly revenue and revenue loss monitoring
- Customer segmentation by gender and age
- Understanding customer profiles by analyzing churned vs retained customers based on
  - Gender
  - Partnership status
  - Dependent status

Revealing key demographic patterns that influence churn behavior

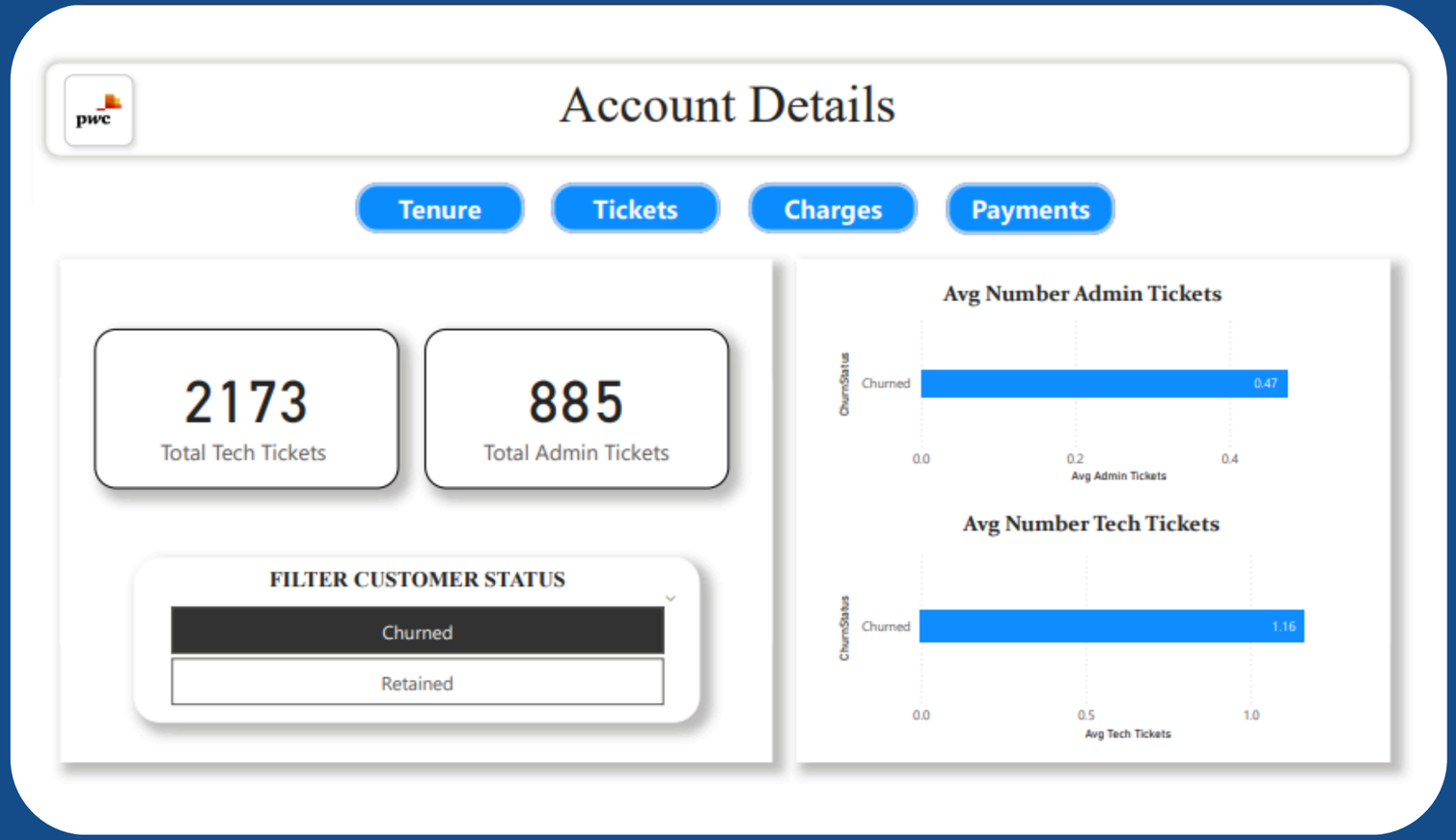
Dashboard Overview



Account Details :
Contract & Tenure Impact

- Contract & Tenure Impact
- Analyzes the relationship between contract types and customer tenure
- Customers with shorter contracts have higher churn rates
- Month-to-month contract holders are the most likely to churn
- Longer contracts are associated with better customer retention

Dashboard Overview



Account Details : Support Tickets

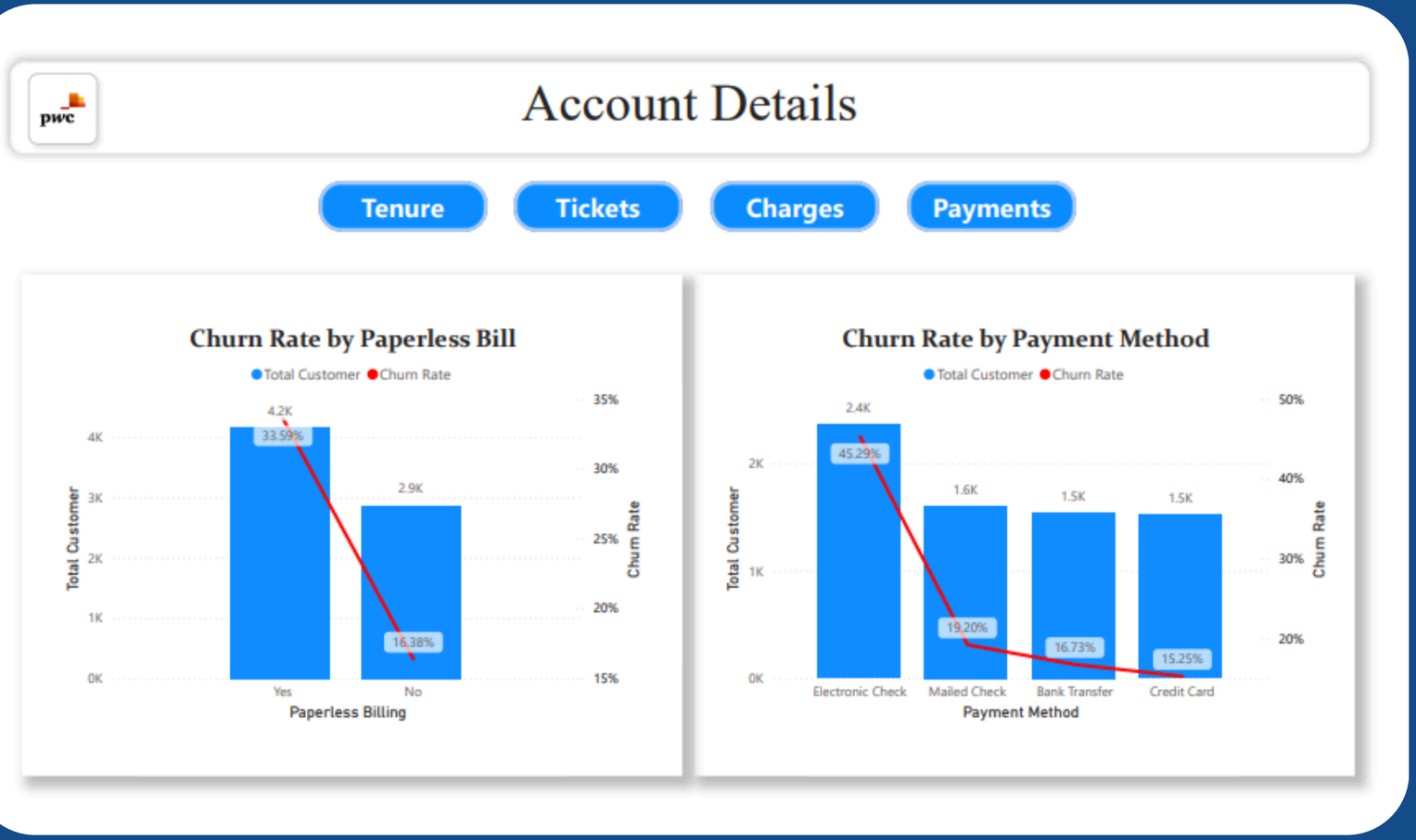
- Examines support activity between churned and retained customers
- Churned customers generate more technical, But retained Customer have more admin tickets
- Indicates a possible connection between service issues and churn
- Highlights the importance of effective customer support

Dashboard Overview

Account Details : Charges & Payments

- Compares billing behavior of churned vs retained customers
- Churned customers have higher monthly charges on average
- Their total charges tend to be lower, possibly due to shorter retention periods
- Suggests potential billing-related dissatisfaction

Dashboard Overview

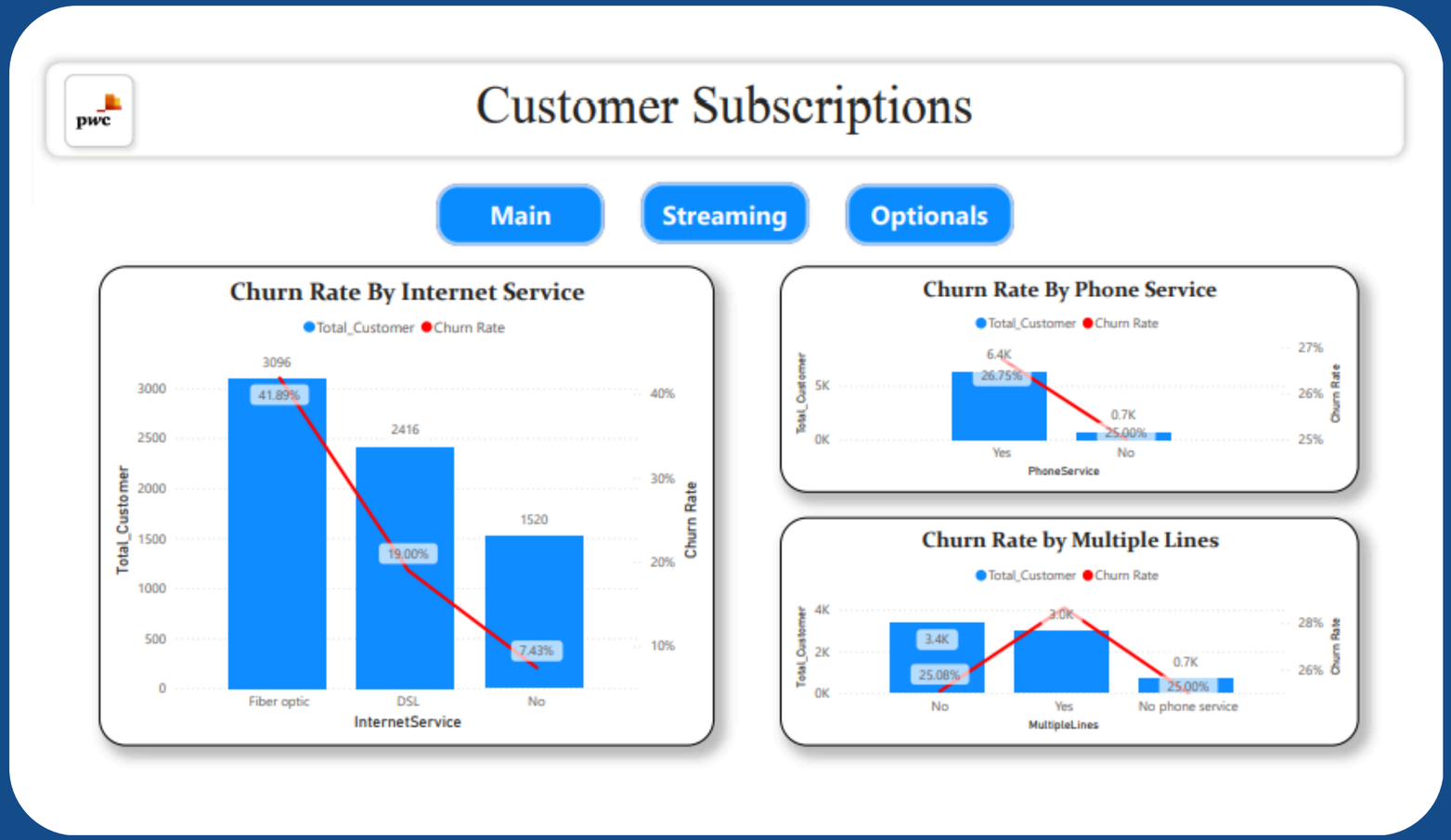


Account Details :

Payment Method & Paperless Billing

- Looks at churn patterns based on payment preferences
- Electronic check users show the highest churn rates
- Customers using paperless billing are more likely to churn
- Certain payment methods may indicate customer risk profiles

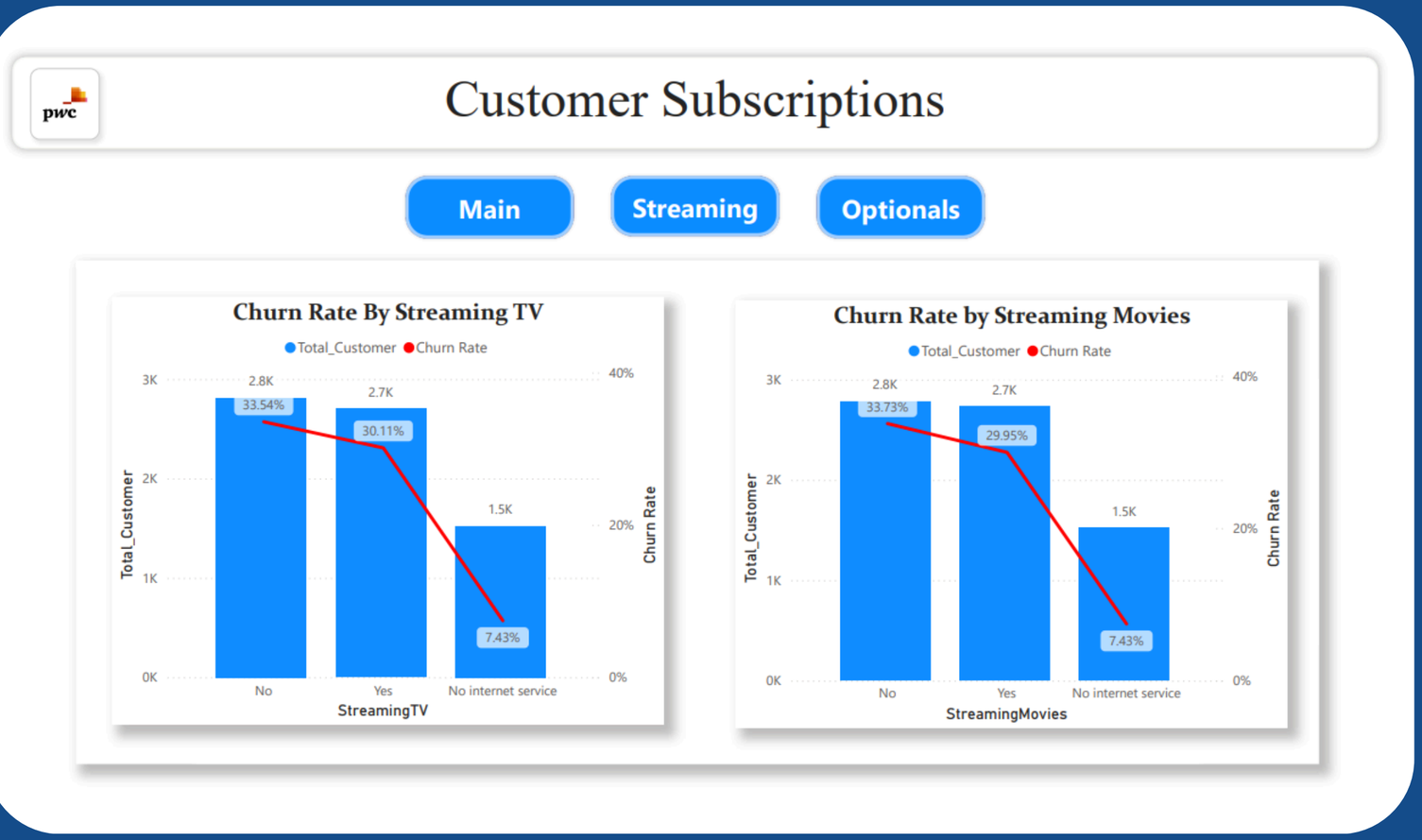
Dashboard Overview



Customer Subscriptions :
Internet, Phone & Multiple Lines

- Analyzes churn based on types of services used
- Fiber optic users show significantly higher churn rates than DSL users
- Minimal differences found in churn rates between phone and multiple line usage
- Service type may influence customer satisfaction and loyalty

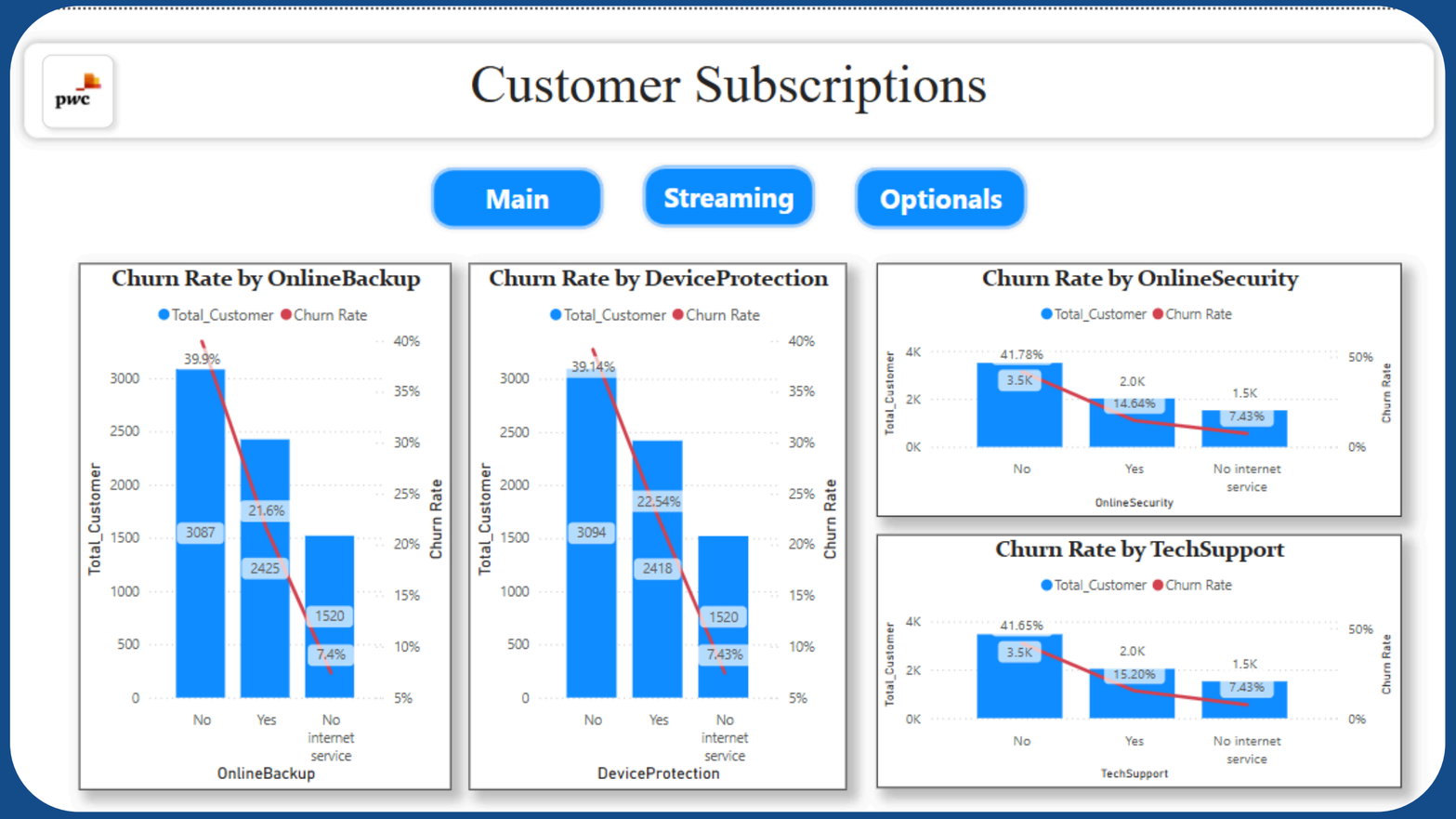
Dashboard Overview



Customer Subscriptions : Streaming Services

- Evaluating churn patterns based on streaming service usage
- Streaming TV and Movie users tend to churn less

Dashboard Overview



Customer Subscriptions : Backup and Service

- Churn rates are significantly higher for customers without backup services.
- Customers lacking device protection experience higher churn.
- The absence of online security leads to notably higher churn rates.
- Lack of tech support correlates with increased churn.

Curious? 🤔
Check out the Power BI file at the Github! 👉