



CUSTOMER CHURN ANALYSIS

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GUVI Final Project



KEY METRICS ANALYSIS

01 - CHURN ANALYSIS OVERVIEW

04 - PROFILE ANALYSIS

**02 - CHURNED CUSTOMERS
ANALYSIS**

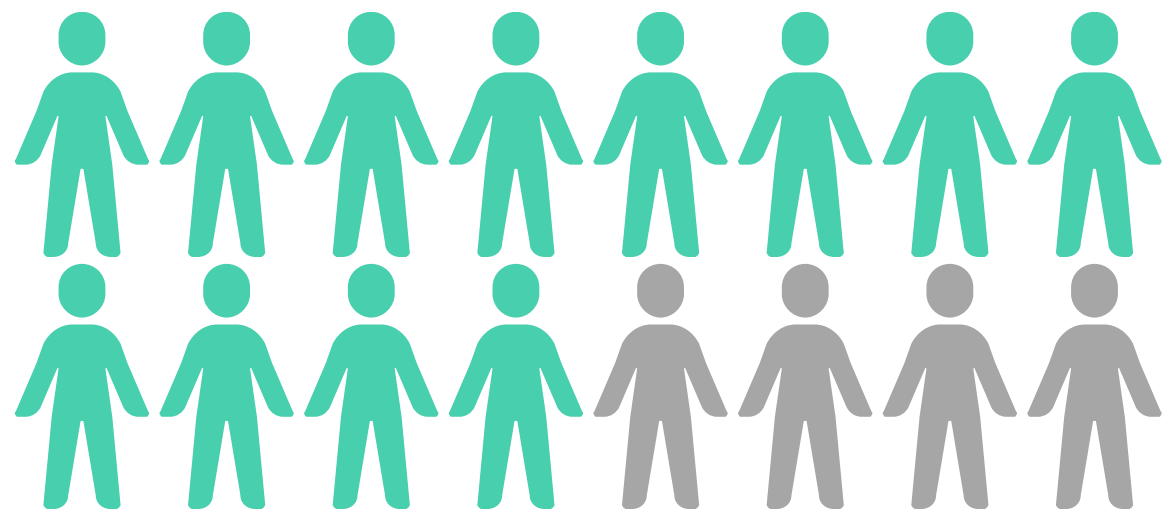
05 - TREE MAP & INSIGHTS

03 - CUSTOMER DASHBOARD

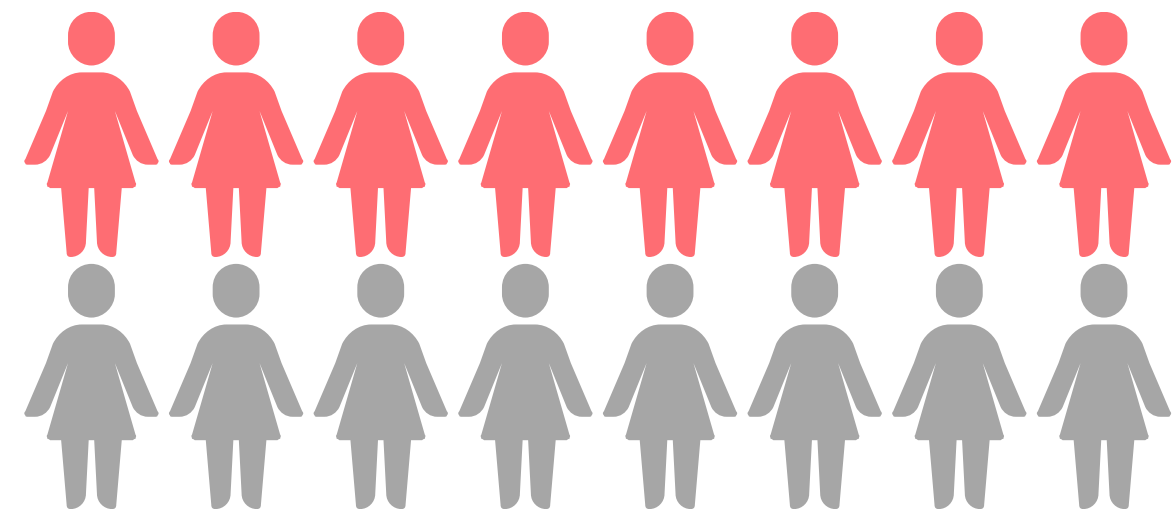
06 - AVOIDING CHURN



WHY DO CUSTOMERS CHURN?



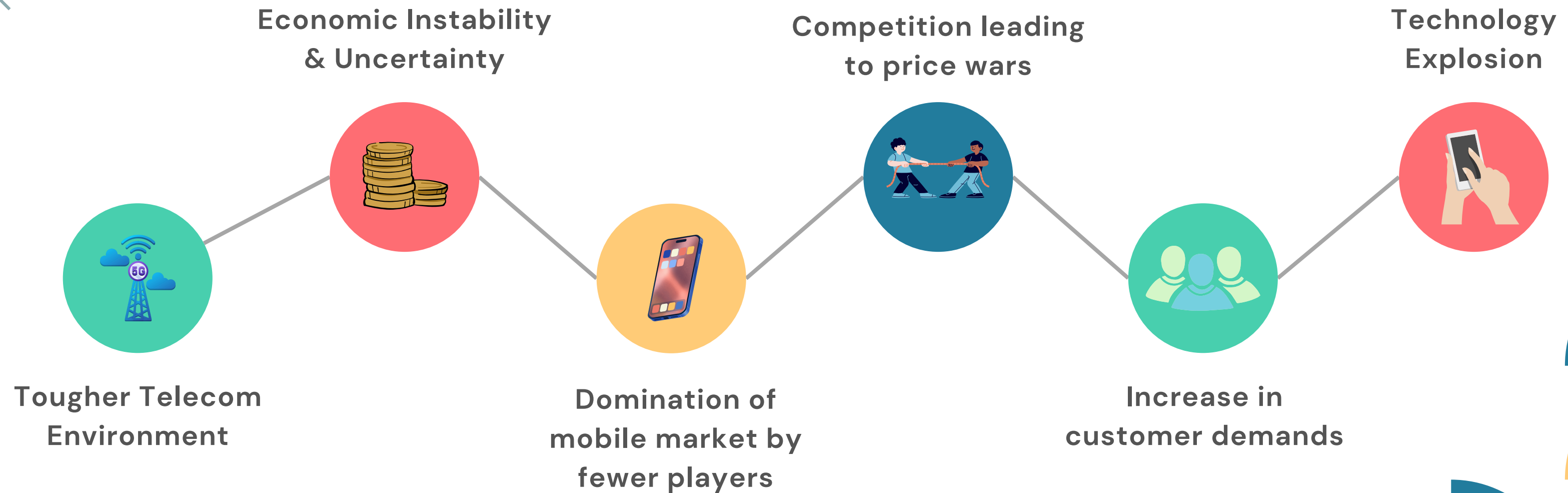
Operators are losing share in today's telecommunication market



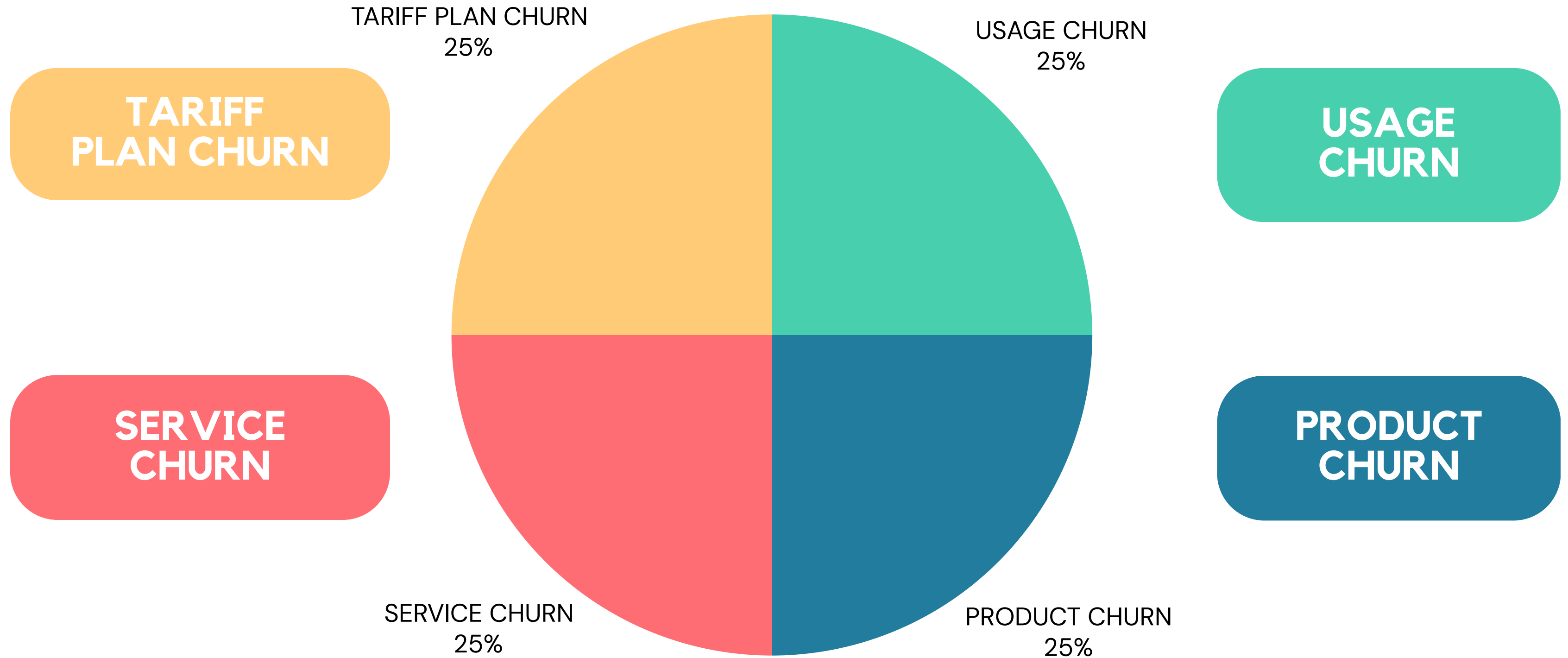
Portability is becoming a very common issue in India leading to higher rates of customer churn

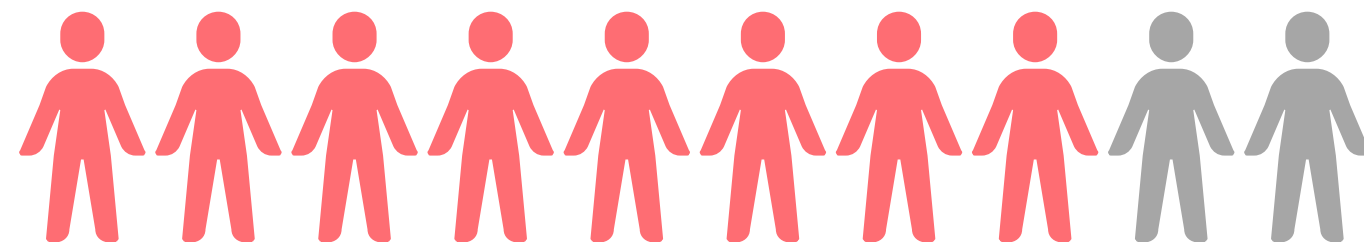


FACTORS CAUSING THE CHURN



TYPES OF SUBSCRIBER CHURN





WHY TO MANAGE CHURN?

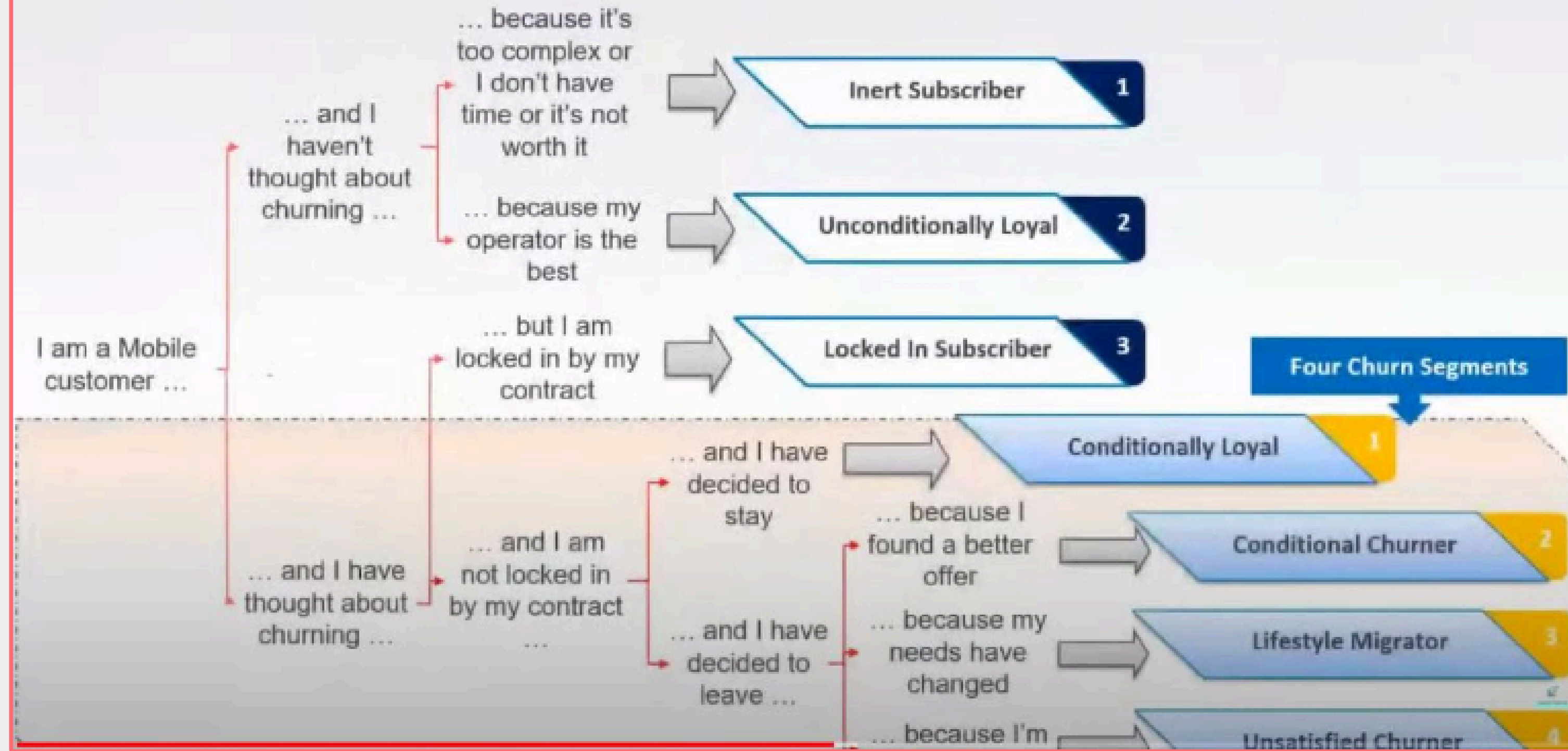


A churned customer provides less revenue or zero revenue and increases a competitor's market share



Increased acquisition cost for the service provider if the customer churns to a competitor brand. It costs upto 5times as much as for a service provider to acquire a new subscriber as to retain an existing one

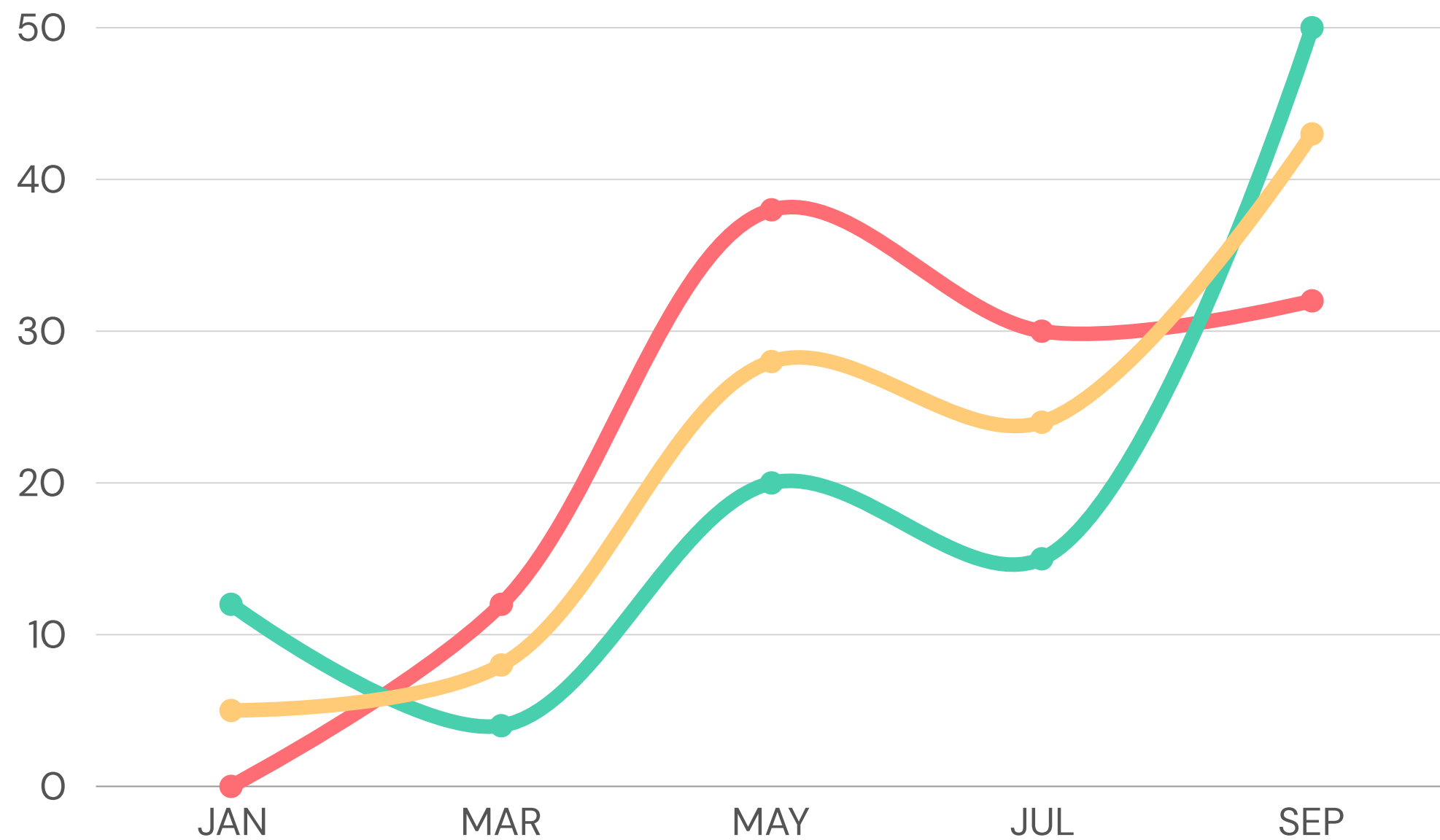
Decision Cycle of a Subscriber: Changes as per needs and/or experiences

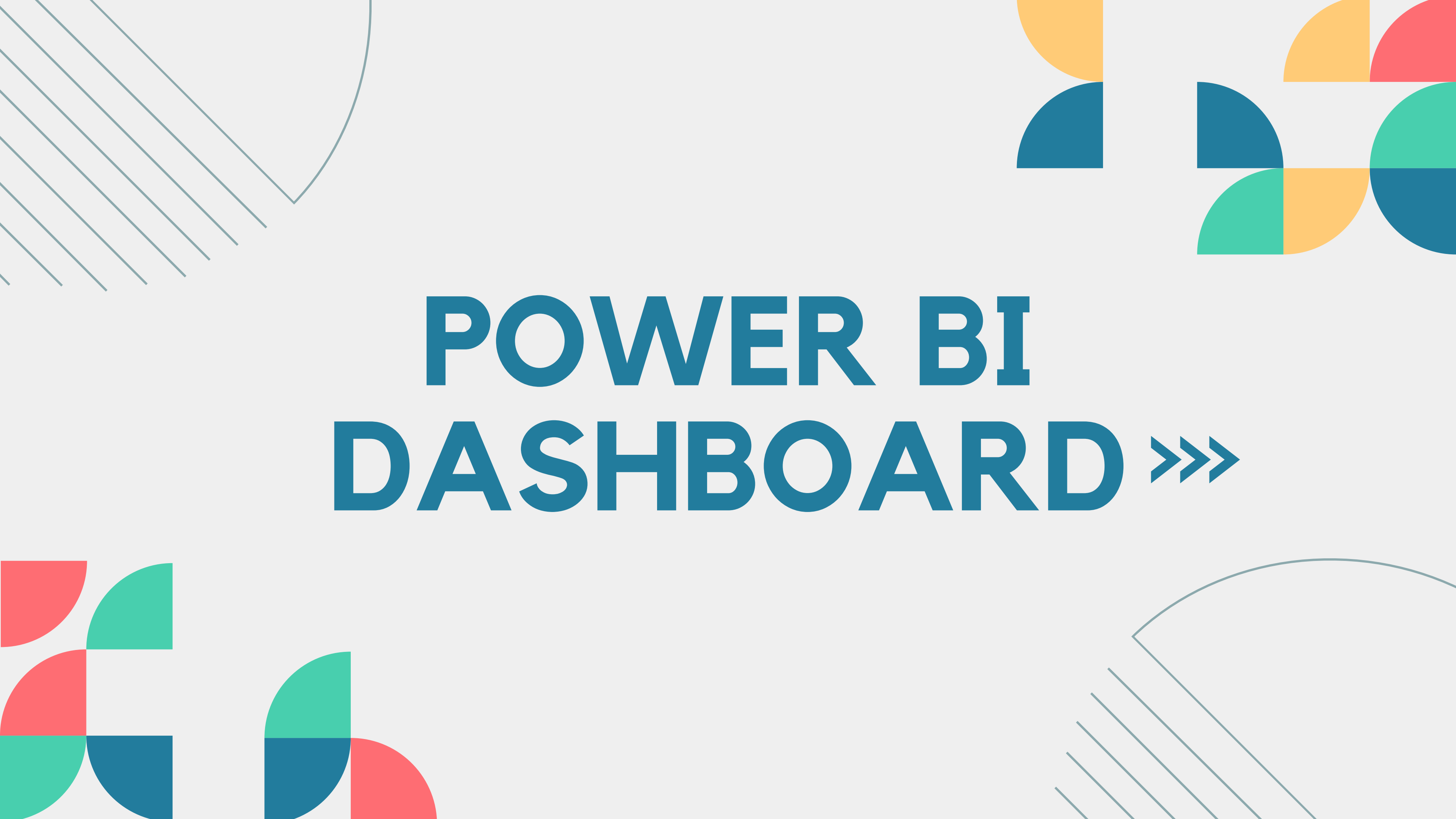


DECISION CYCLE OF A SUBSCRIBER

PROBLEM STATEMENT

Analyze customer churn for a telecommunications company and uncover insights that can help the company understand the drivers of churn and take proactive measures to retain customers.





POWER BI DASHBOARD >>>

Telecom Customer Churn Analysis

Total Customers

500

Churned Customers

105

Current Customers

395

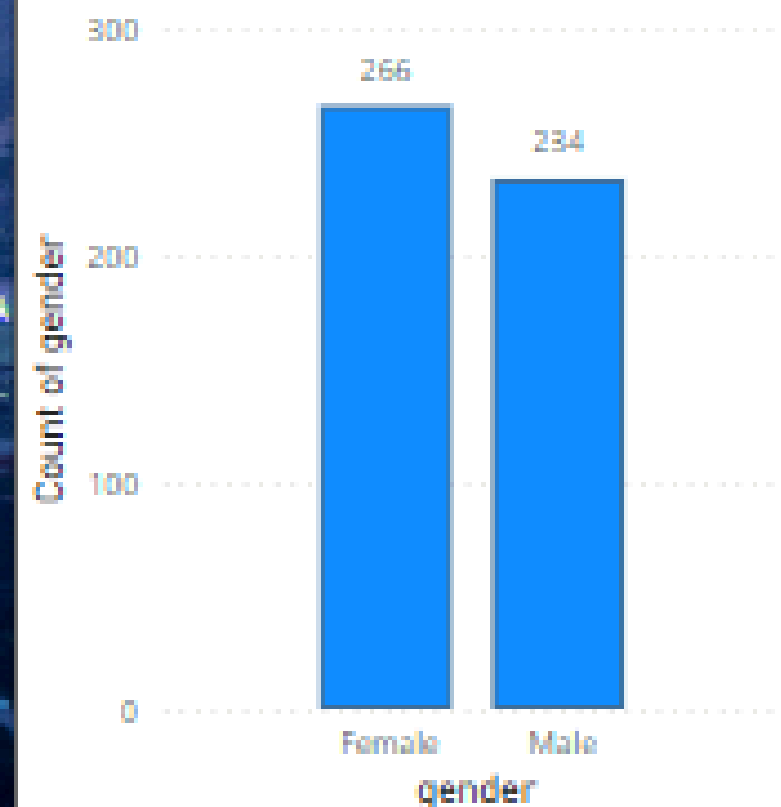
Churn Percentage

21.00

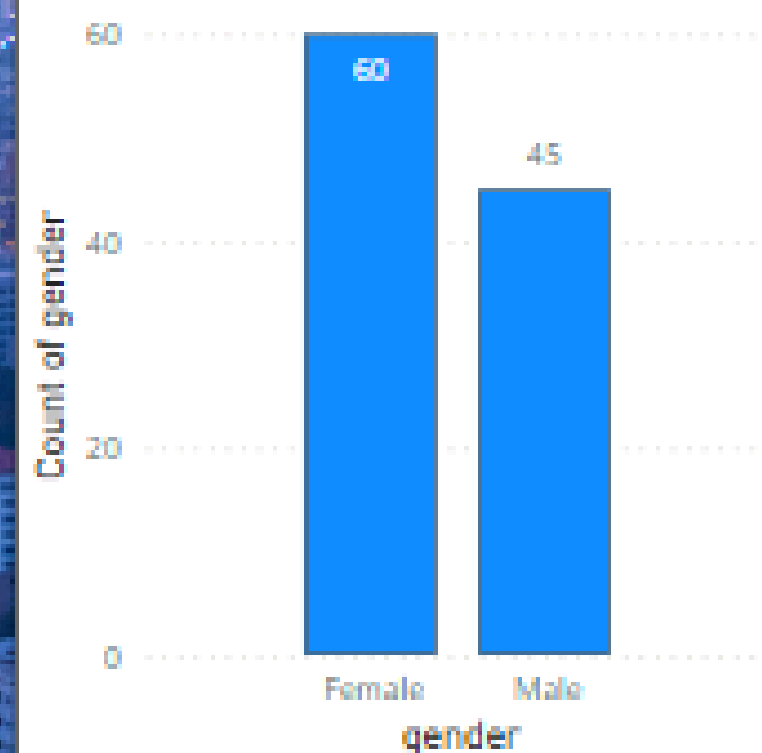
Total Monthly Charges

25.8K

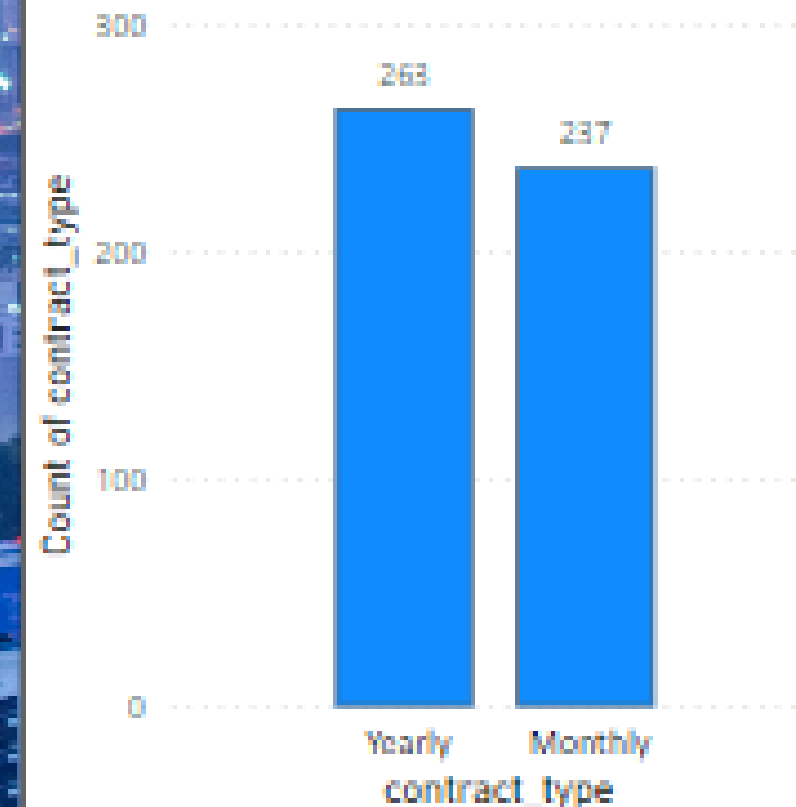
Female v/s Male Customers



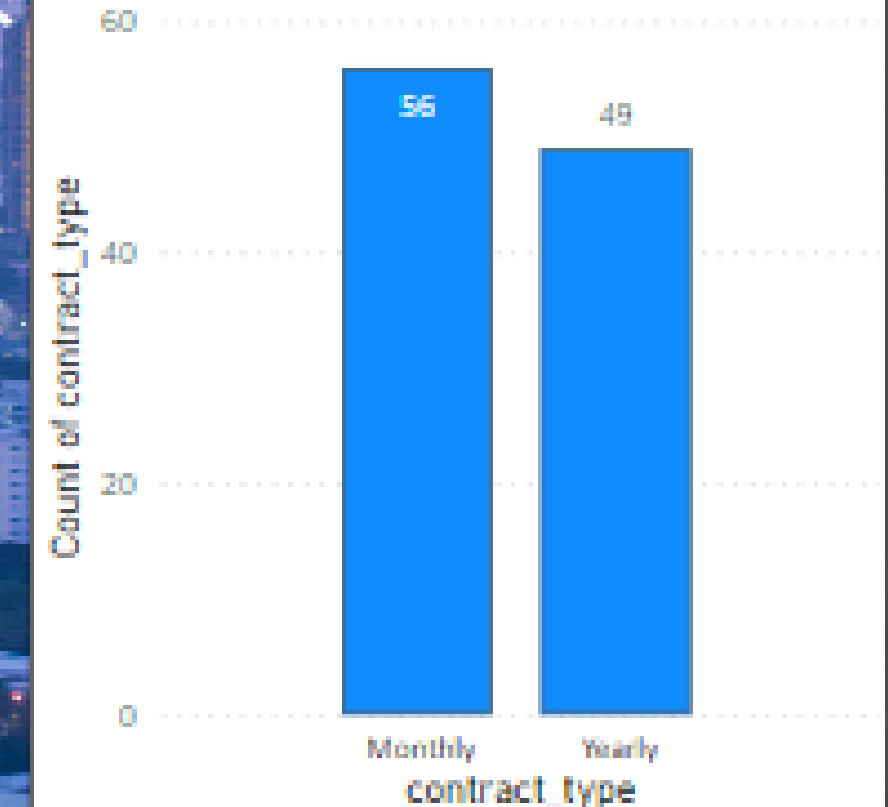
Churned Customers - Female v/s Male



Customers By Contract Type



Churned Customers By Contract Type



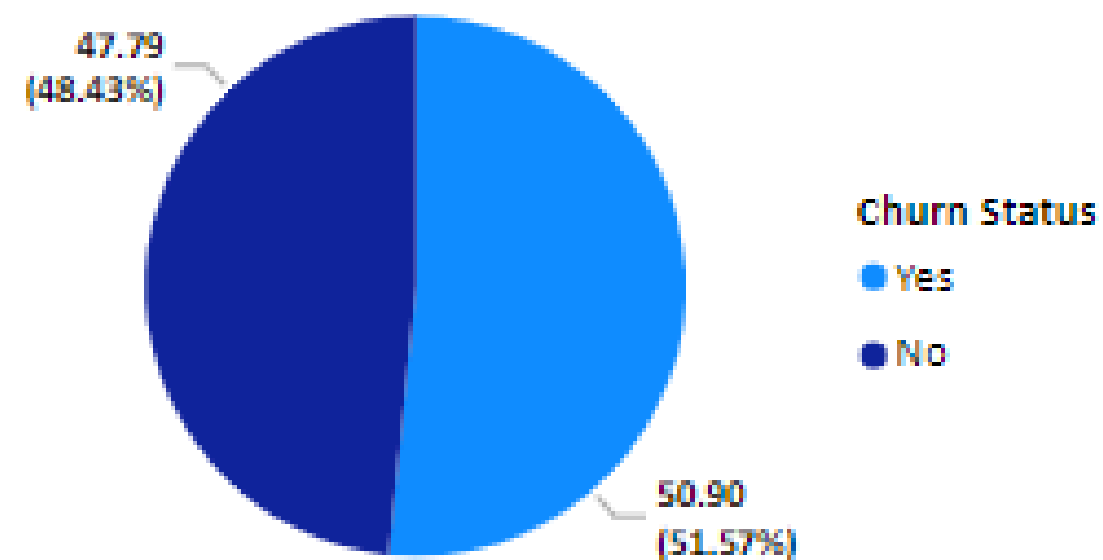
Churned Customer Demographics (Basis Gender & Age)

Gender

All

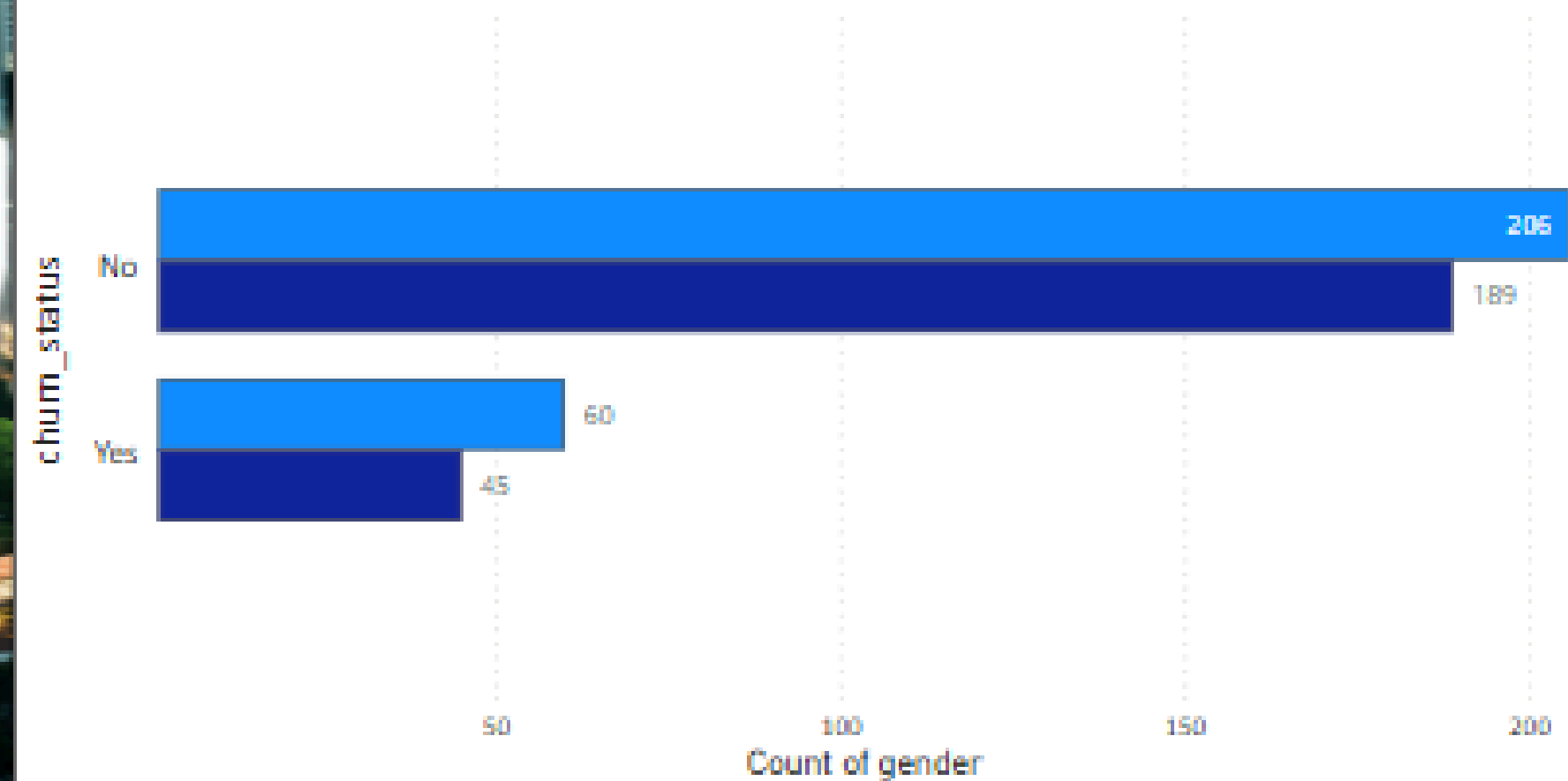
churn_status	Sum of dependents	gender	Average of age	marital_status
No	161	Female	49.68	Single
No	158	Female	44.79	Married
No	157	Male	49.44	Married
No	150	Male	47.39	Single
Yes	49	Female	52.38	Single
Yes	46	Female	53.94	Married
Yes	29	Male	49.70	Married
Total	772		48.44	

Average Age Of Churned Customers



Churned Customers By Gender

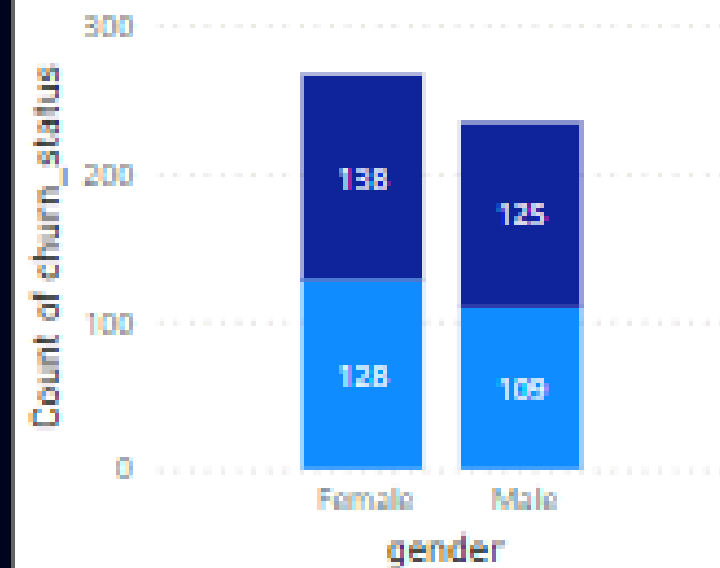
Gender ● Female ● Male



Churned Customers - Analysis Basis Contract Type & Call Duration

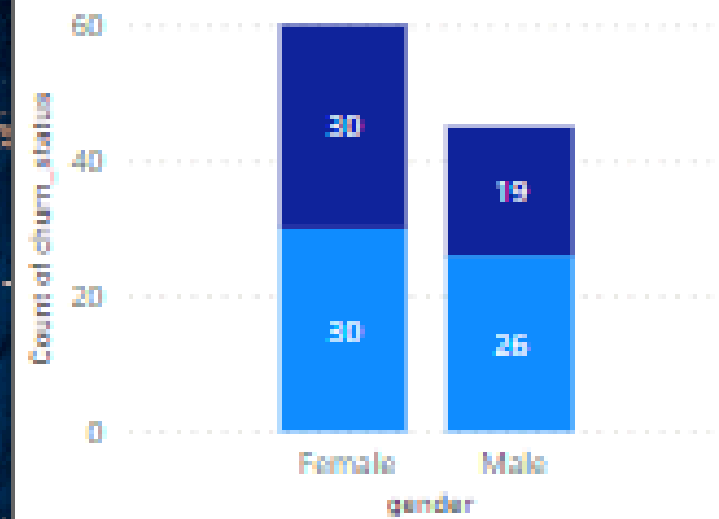
Bivariate Churn Analysis - Gender & Contract Type

contract... Monthly Yearly

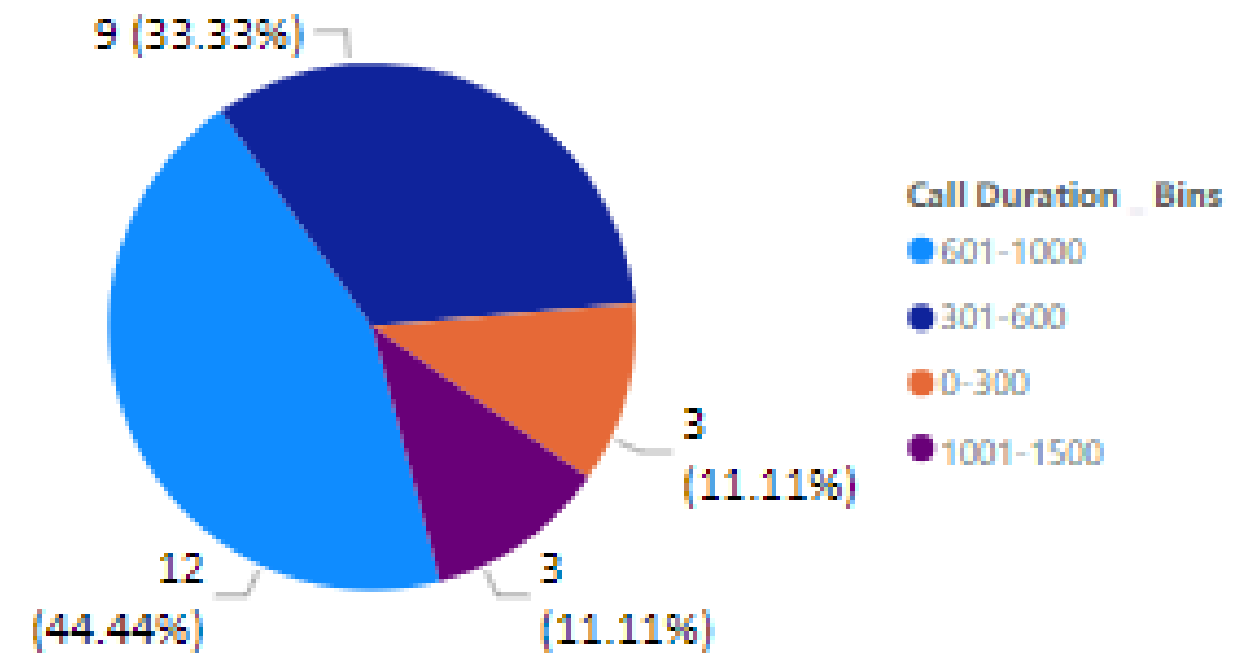


Bivariate Churn Analysis - Gender & Contract Type (For Churned Customers)

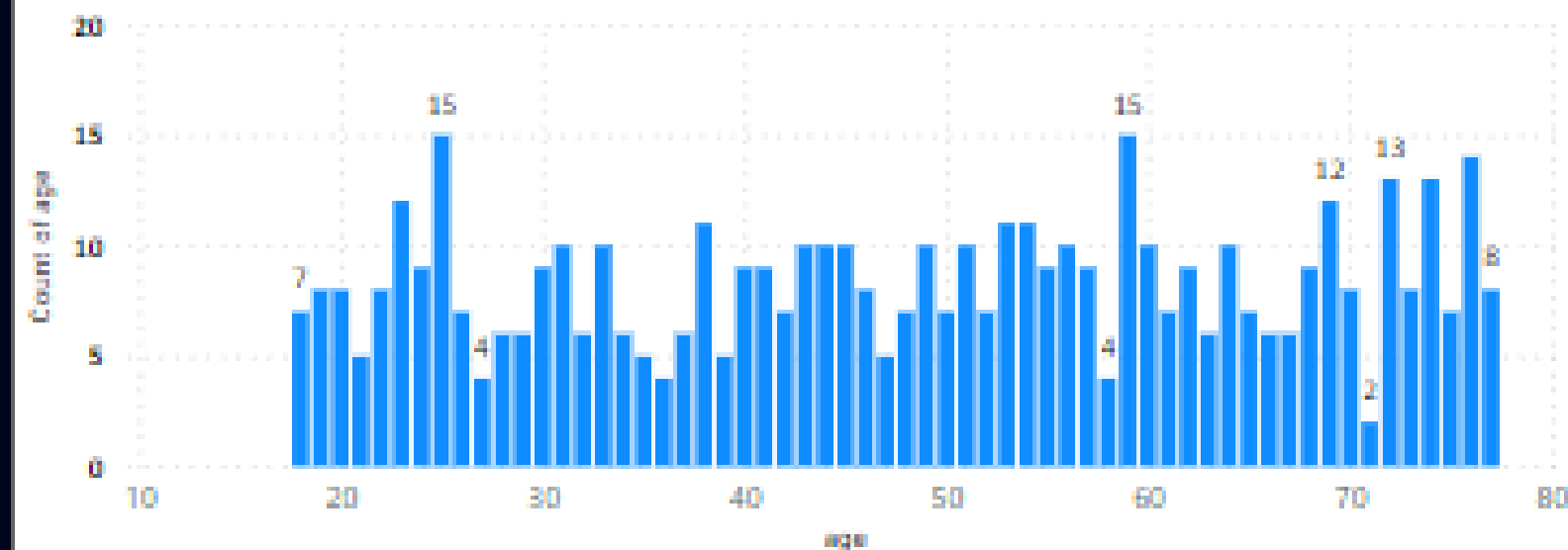
contract... Monthly Yearly



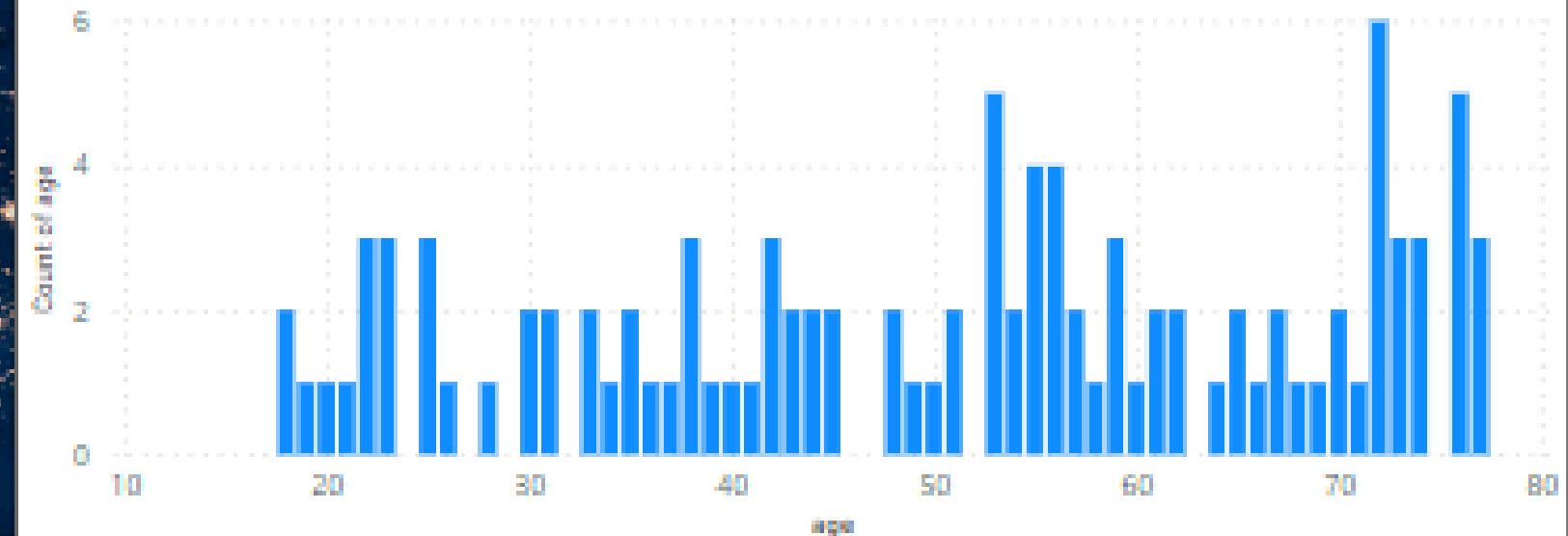
Churn Analysis By Call Duration



Churn Analysis By Age



Age of Churned Customers (With Churn Status Filter)



Customer Dashboard

Average Age

48.44

Married Customers

253

Single Customers

247

Sum Of Monthly
Charges

25.8K

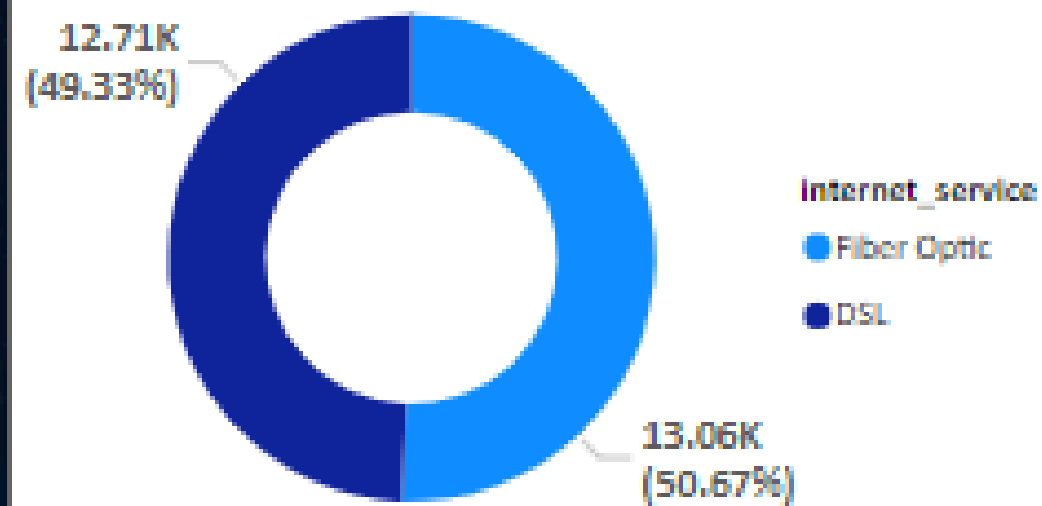
Avg of Monthly
Charges

51.5

Avg Age Of Churned
Customers

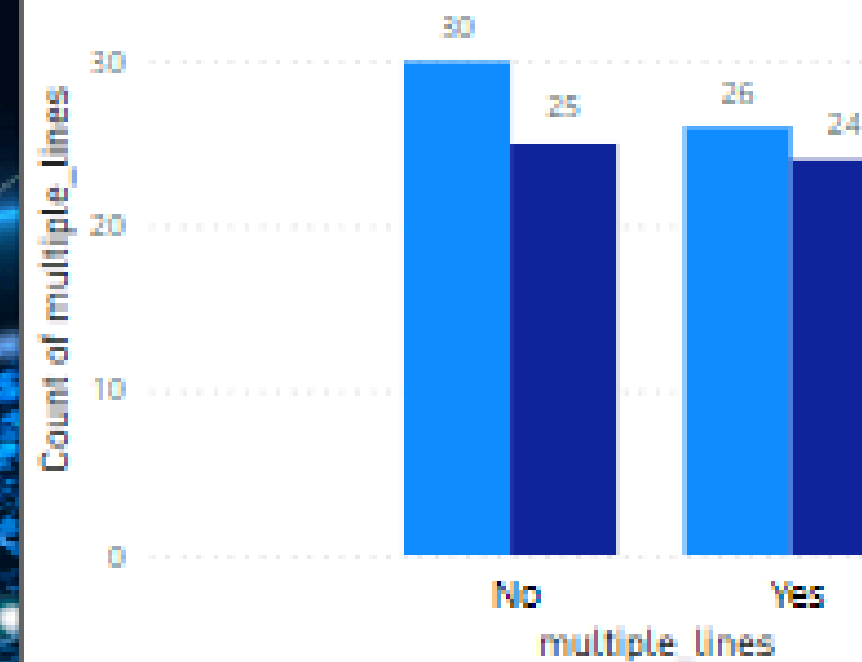
50.9

Monthly Charges By Internet Service Analysis

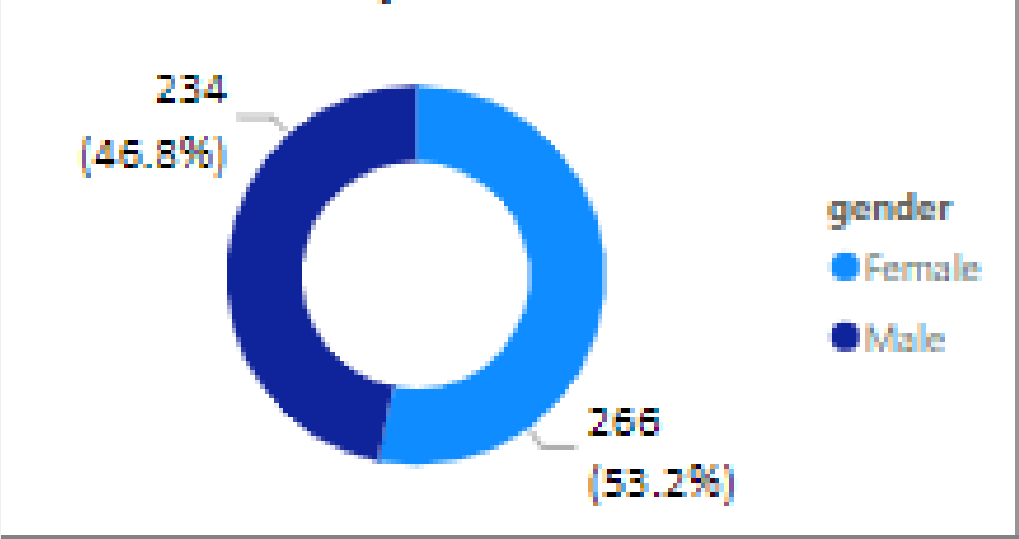


Count of Multiple Lines By Multiple Lines & Contract_Type

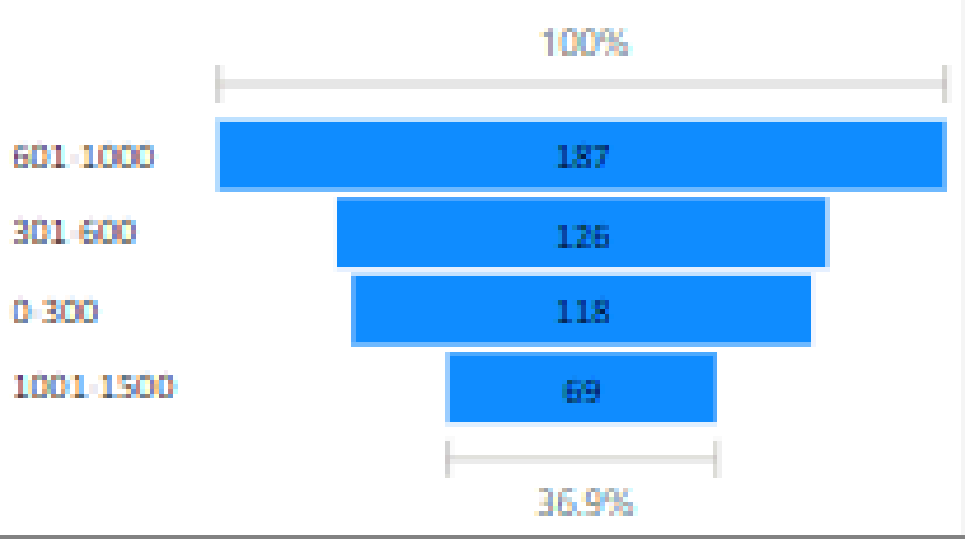
contract_type ● Monthly ● Yearly



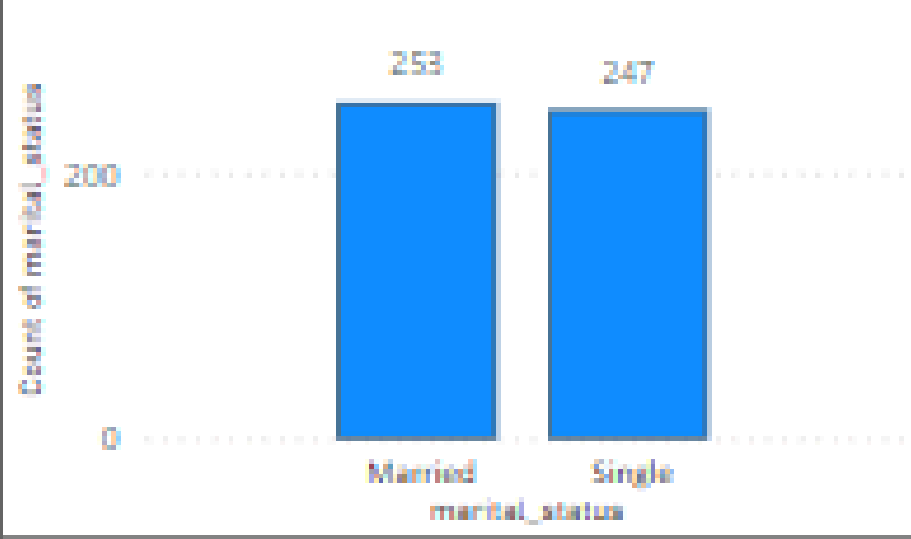
Gender Analysis For Customers



Tenure Analysis For Customers



Marital Status Of Customers



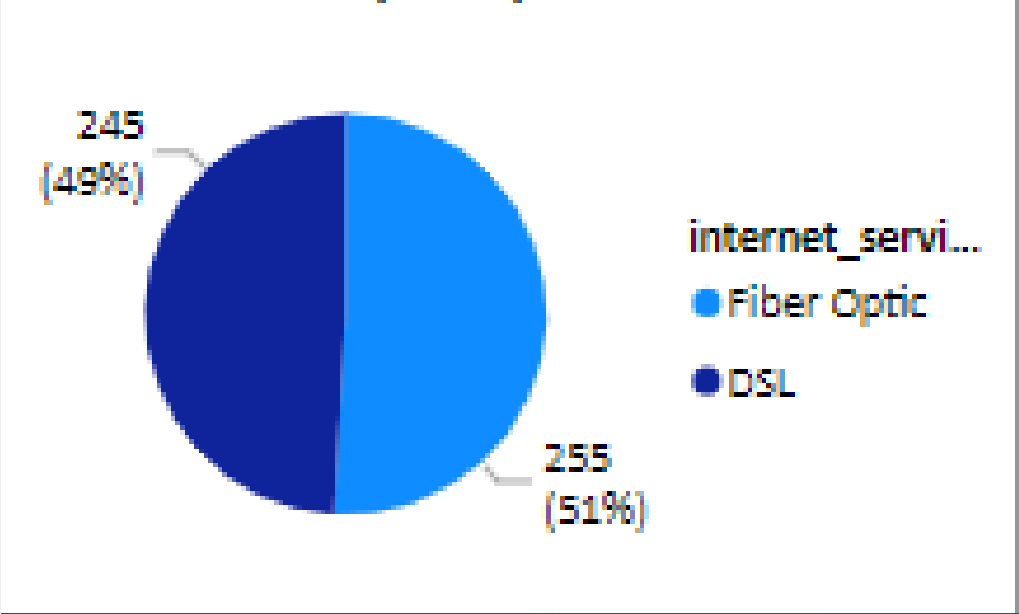
Total Customers

500

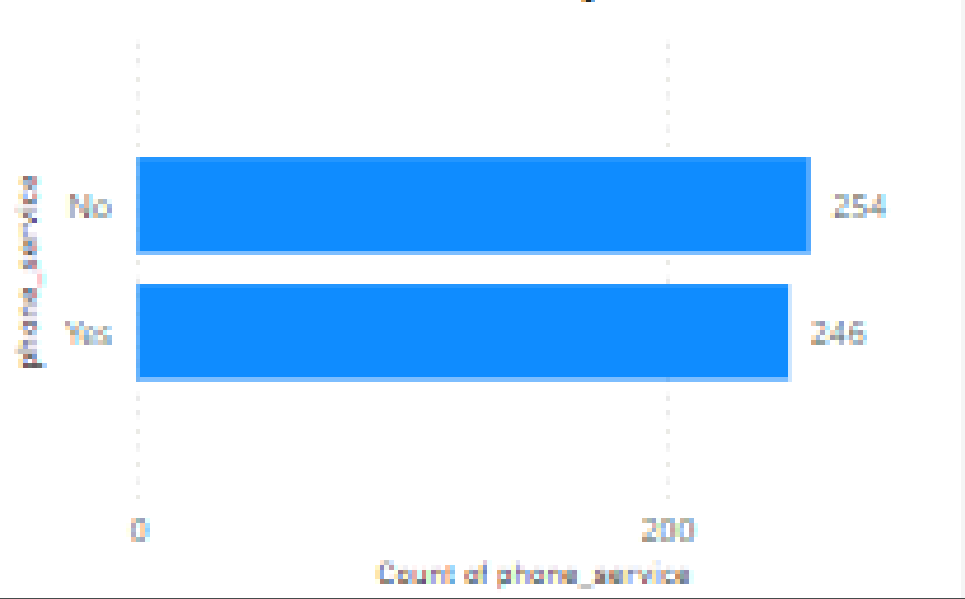
Sum Of Total Charges

261.6K

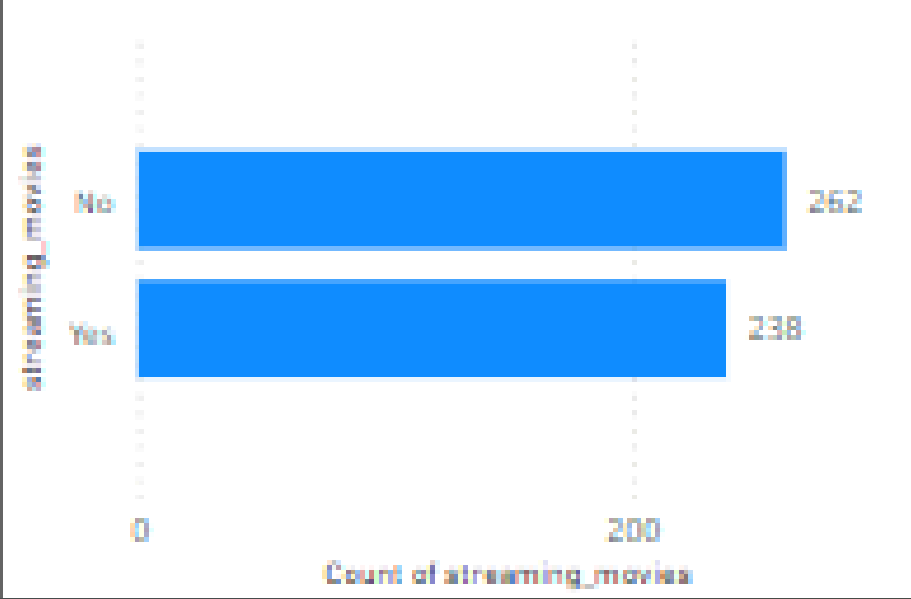
Customer Analysis By Internet Service



Phone Service Analysis



Streaming Movie Service Analysis



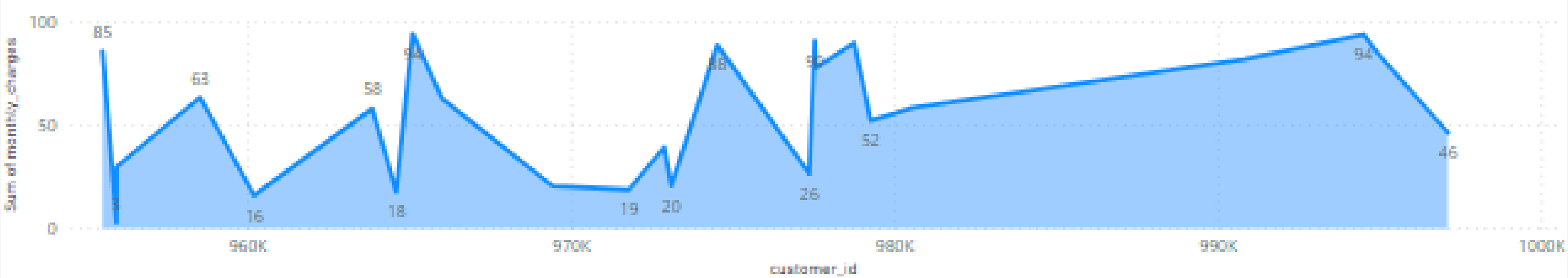
Avg Of Total Charges

523.2

Sum Of Monthly Charges

25.8K

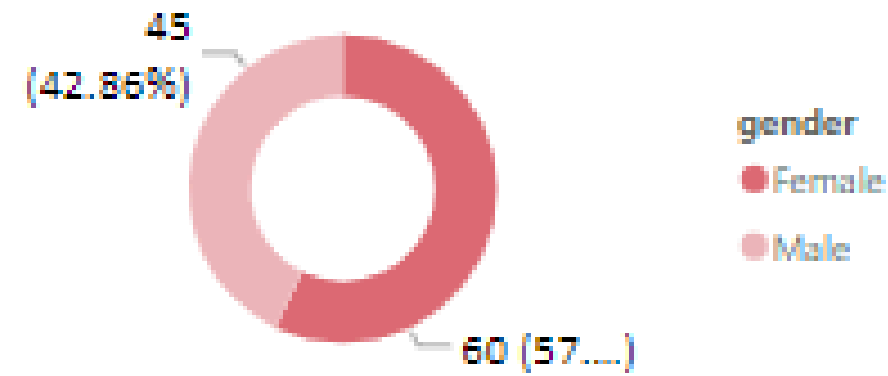
Monthly Charges For Top 25 Customers



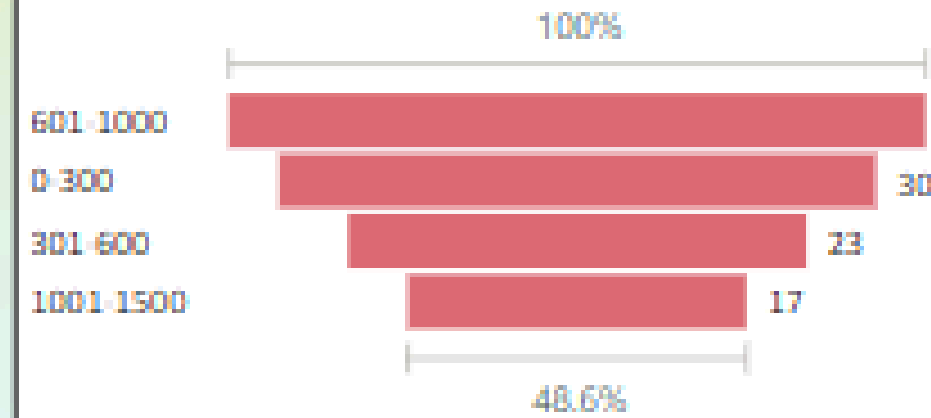
Avg of Monthly Charges

51.5

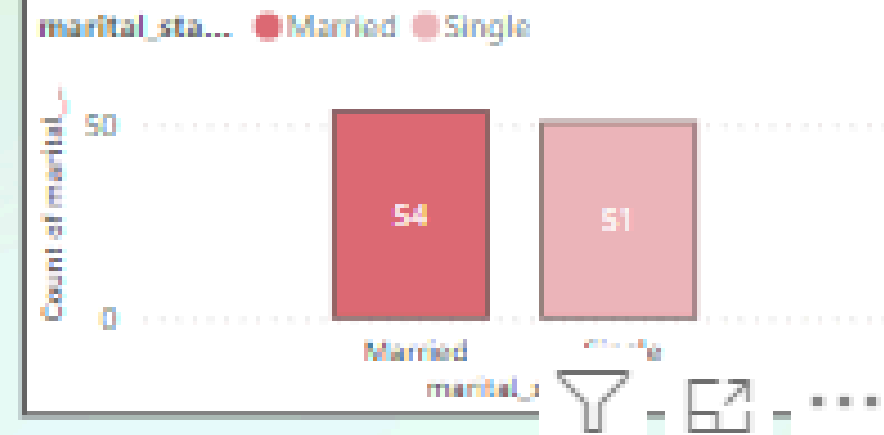
Gender Analysis For Churned Customers



Tenure Analysis For Churned Customers



Marital Status Of Churned Customers



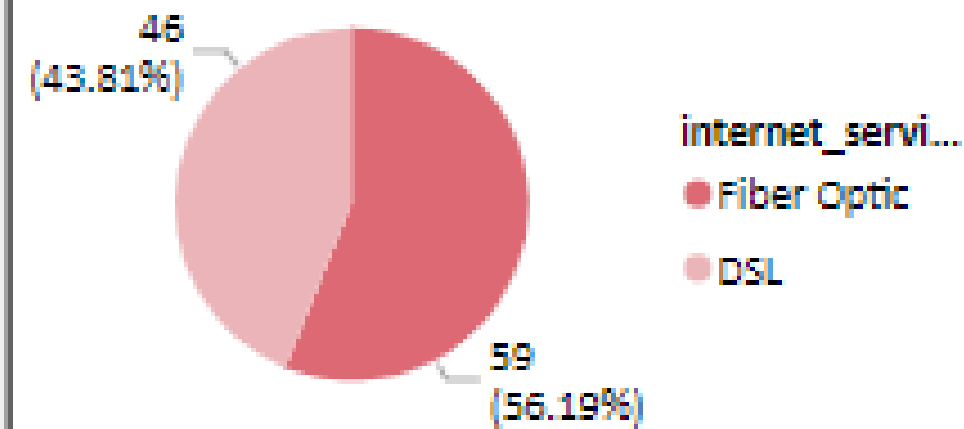
Churned Customers

105

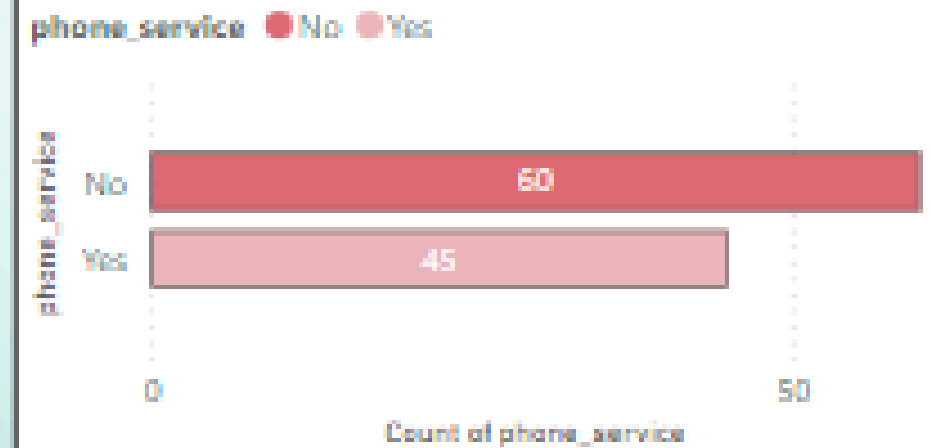
Sum Of Total Charges

56.8K

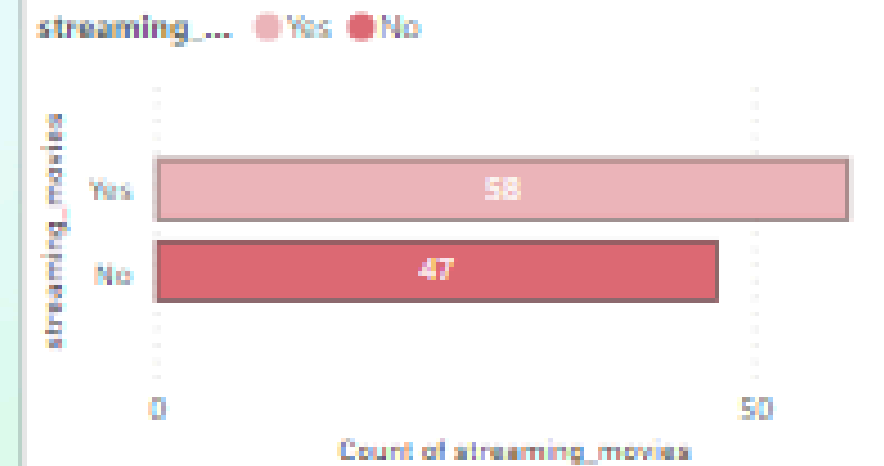
Customer Analysis By Internet Service (Churned Customers)



Phone Service Analysis (Churned Customers)



Streaming Movie Service Analysis (Churned Customers)



Avg Of Total Charges

540.8

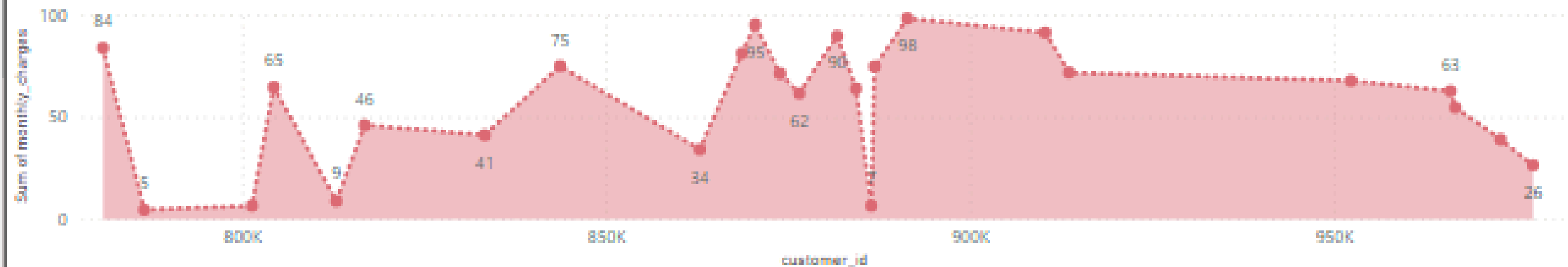
Sum Of Monthly Charges

5.5K

Avg Of Monthly Charges

52.5

Monthly Charges For Top 25 Churned Customers



Churned Customers Decomposition Tree Map



Unsubscribed Customers Services Breakdown

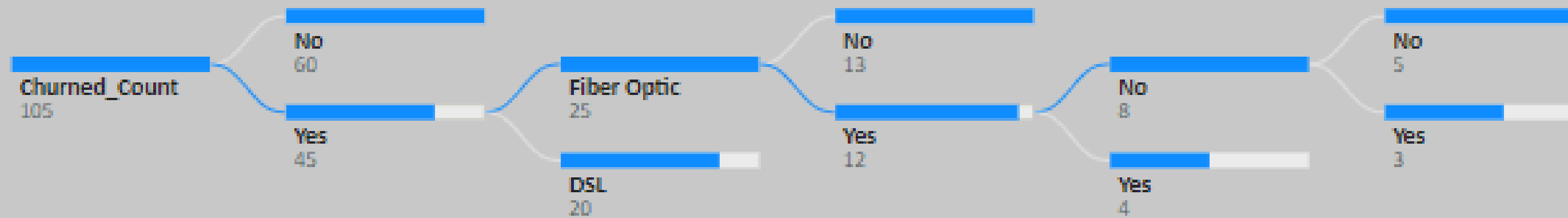
phone_service ×

internet_service ×

online_security ×

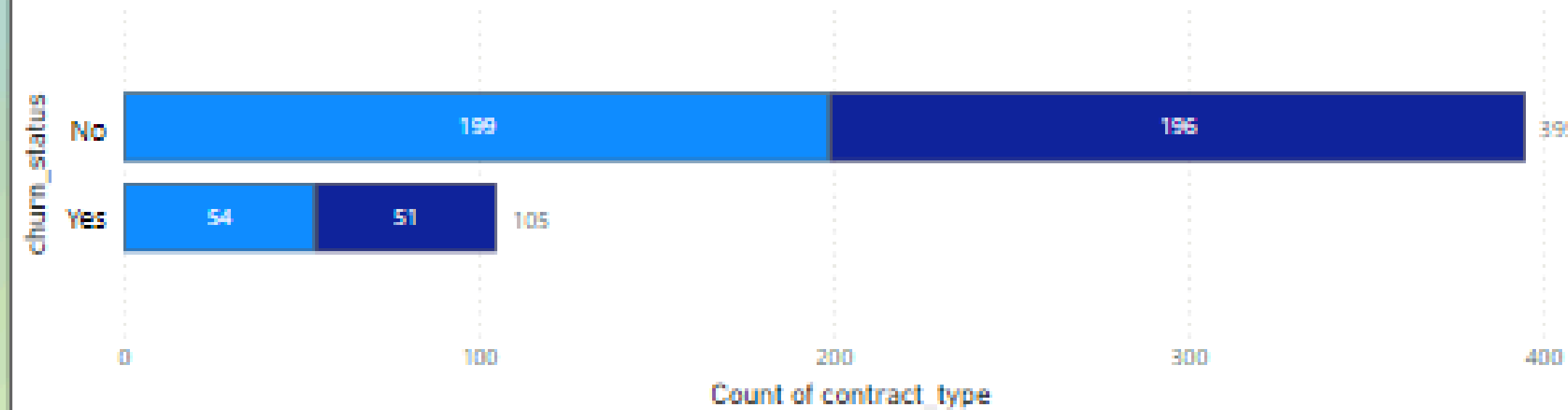
online_backup ×

streaming_tv ×



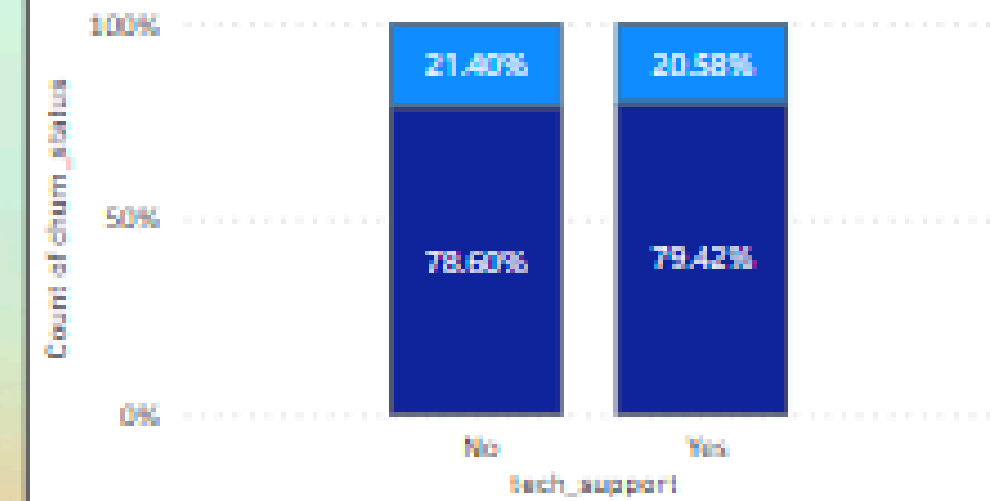
Churned Customers By Marital Status & Contract Type

marital_status ● Married ● Single



Churn Customers Basis Availability Of Tech Support

Churn Status ● No ● Yes




The background features four decorative geometric patterns in the corners. Top-left: A series of parallel diagonal lines in a light blue-grey color, with a curved line segment on the right. Top-right: A cluster of overlapping semi-circles in yellow, red, teal, and dark blue. Bottom-left: A cluster of overlapping semi-circles in red, teal, and dark blue. Bottom-right: A series of parallel diagonal lines in a light blue-grey color, with a curved line segment on the left.

INSIGHTS »»»

Insights

- Churn rate, also known as customer churn rate or attrition rate, is the percentage of customers or subscribers who stop using a product or service during a given time period. It is a key business metric for companies that operate on a subscription basis or have a recurring revenue model, as it directly impacts growth and profitability.
- A high churn rate indicates that a company is losing customers quickly, which can be a red flag, while a low churn rate suggests better customer retention and satisfaction.
- Out of the total customers, 21 percent have been churned out. Churn percentage of female customers is higher than male customer. Female churn percentage - 57.14% and Male churn percentage - 42.86%
- Customers who have monthly contract (23.6 %) with the company are showing higher churn rates compared to those with yearly contracts (18.6%). This indicates that customers prioritize long-term commitment over short-term connections.
- Average age of customers leaving the company is 51 years which shows that elderly citizens are dropping their loyalties towards the company over youth.
- Call duration of 44 percent of churned customers is between 600-1000 minutes cumulative indicating that customers are not comfortable with using our brand for longer duration calls; leading to higher churn rate.
- Married customers are contributing more to churn rate over single customers. Churn rate for married customers is 21.3 percent and for single customers is 20.6 percent.

- . 55 percent of churned customers have found a streaming service after churning. About 43 percent have found an alternative phone service after churning.
- . About 56 percent churned customers are using internet services and about 43 percent are using DSL services. This suggests that the company's fibre-optic services are proving problematic for customers.
- . Charges of churned customers touched almost 100 units per month leading to higher churn rates.
- . From the tree map analysis, both unsubscribed customers use both phone and internet services.
- . Those who do not have phone services used DSL and Fibre Optic Services as the medium of internet service. The marketing department needs to upsell other internet methods to those who are not willing to take phone services.
- . In short, churned customers are gaining better access to phone services, internet services, online security, online backup and streaming services which are the glaring reasons of churn for our company. It is important to offer value-additional services like streaming services to improve customer retention.
- . Almost 20 percent of churned customers have access to tech support too.
- . Dissatisfied customers are more likely to undergo churn due to unreasonable price hikes and could be an important factor influencing churn. Customers who are not gaining access to additional services like internet, phone services, streaming movie services are more likely to churn.



AVOIDING CUSTOMER CHURN >>>

Avoiding Customer Churn

...

Target female customers with specific communications and plan options:

The data shows significantly higher churn among female customers. Conduct surveys or targeted focus groups to understand their specific needs and pain points.

Based on the findings, tailor communication and plan options that resonate better with female customers. This could involve offering features or functionalities that address their specific needs, or creating communication channels where they feel comfortable asking questions.

Improve customer support for longer call durations and explore solutions for married couples:

A significant portion of churned customers made calls exceeding 600-1000 minutes. This suggests they might be facing issues that require longer support interactions.

Improve customer support for handling complex inquiries or longer calls. This could involve offering dedicated support lines, highly trained agents, or self-service options with detailed guides for extended calls.

While the data shows a slightly higher churn rate for married couples, explore if there's a specific need within this demographic. Consider offering family plans or features that cater to married couples, potentially reducing churn for both partners.

Analyze high usage patterns and offer solutions:

The churn data indicates customers with high monthly charges (around 100 units) churned at a higher rate. Understand what drives this high usage and if it's due to service limitations.

If high usage is due to service limitations, consider offering unlimited or tiered data plans to cater to these customers' needs.

Analyze call patterns and introduce features like international calling discounts or data rollover options to potentially reduce churn.

Avoiding Customer Churn

Improve Fibre Optic services and address customer concerns:

A significant portion of churned customers using Fibre Optics suggests potential service issues. Investigate the reasons behind churn specifically for Fibre Optic users.

Improve the reliability, speed, or ease of use of Fibre Optic services. Address common customer pain points through targeted communication or service upgrades.

Offer targeted upselling and cross-selling based on customer data:

The report indicates churned customers subscribed to phone and internet services elsewhere.

Analyze customer data to identify customers who only use one service (e.g., internet-only).

Develop targeted upselling campaigns offering phone service bundles to internet-only customers. Similarly, explore cross-selling streaming services or security solutions to existing customers.

Bundle services and offer competitive pricing:

The data shows churned customers are seeking bundled services including phone, internet, streaming, and potentially security/backup.

Develop attractive bundled packages that combine your core offerings (phone & internet) with streaming services, online security, or online backup at competitive prices.

The image features a light gray background with the text "THANK YOU" centered in a bold, blue, sans-serif font. The corners are decorated with abstract geometric patterns. The top-left corner has a series of parallel diagonal lines in a light blue-gray color. The top-right corner features a cluster of overlapping semi-circles in yellow, red, and teal. The bottom-left corner shows a similar cluster of overlapping semi-circles in red, teal, and blue. The bottom-right corner contains a large, light blue-gray arc with several parallel diagonal lines extending from its base.

THANK YOU