

Problems & Background

Problems: We are examining the reduction in our market share, and the amount of churn is increasing.

Background : Our business has observed a sharp drop in the quantity of customers utilizing our services, and this is having a big impact on our market share as well. examining the user's insights and pattern to locate this drop.

Solution

1. **Data Analysis :** Understand customer behavior to identify critical patterns and opportunities for improvement. Gather data on customer behavior, usage patterns, and order history.
 - Using **Excel** for **data cleaning** and for creating **Dashboard**.
2. **Data-Driven Insights :** By understanding customer behavior through data-driven insights, tailor strategies to boost revenue and drive business growth.
 - Using pattern identification to uncover common reasons for churn
 - predictive analysis to forecast and mitigate at-risk customers
 - customer segmentation to develop targeted retention strategies for different customer groups.
3. **Stakeholder Engagement :** Engage staff and management to gather insights and develop actionable strategies

Project Scope

Investigate Customer Churn and Market Share Decline:

- Examine **Four** key areas: Customer Behavior, Service Quality, Pricing, Communication.
 - **Customer Behavior:** Analyze customer usage patterns and preferences to identify trends and potential areas for improvement.
 - **Service Quality:** Improve service quality to reduce customer complaints and enhance overall customer experience.
 - **Pricing:** Offer competitive pricing and special deals, such as discounted or free services during specific times, to attract and retain customers.
 - **Communication:** Strengthen communication channels to ensure clear and effective interactions with customers.

Methodology

Data Sources:

- **Dataset:**

- Utilized a telecommunications dataset from Kaggle in CSV format.
- Formatting: Imported and formatted the data in Excel for further analysis.
- **Data Wrangling:**
 - Understanding the Data: Conducted an initial review of the dataset to understand its structure and content.
 - Enhancements: Added new data as needed to fill gaps and enhance the dataset.
- **Data Analysis:**
 - Exploratory Data Analysis (EDA): Identified trends and patterns within the data to gain insights.
- **Data Visualization:**
 - Created visual representations of key metrics using Excel charts and graphs to illustrate trends and patterns effectively

Goals & KPIs

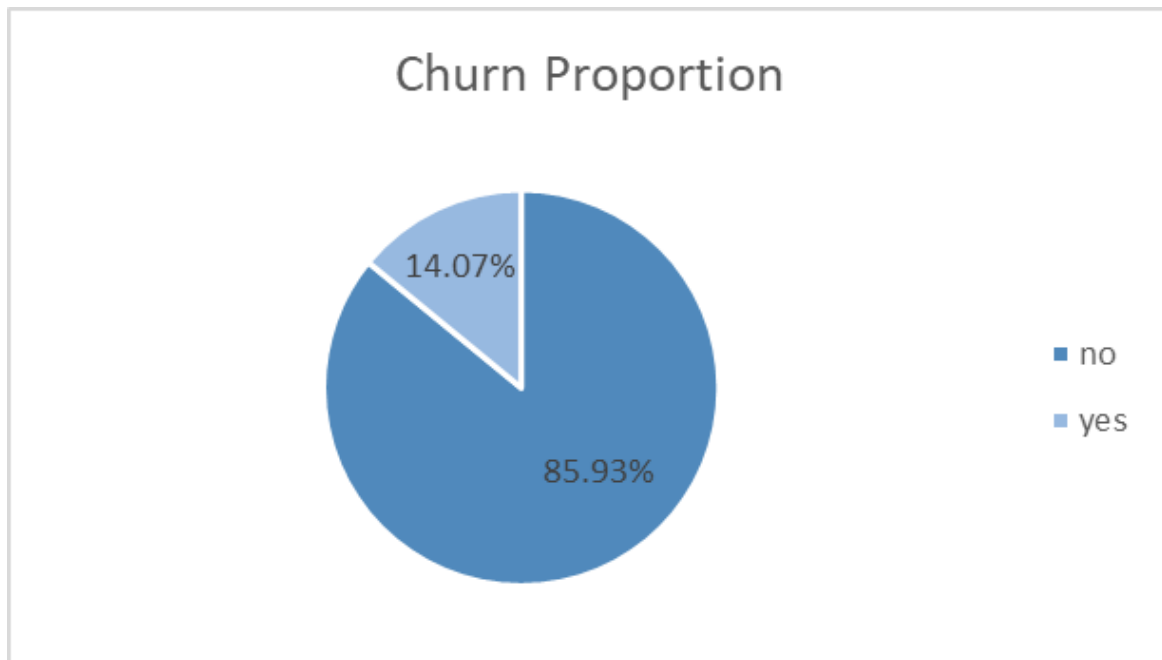
- **Goals**
 - Increase the number of new customers acquired monthly.
 - Improve the retention rate of existing customers.
 - Reduce the percentage of customers lost.
 - Increase the company's share of the total market.
- **KPIs**
 - New Customer Acquisition
 - Customer Retention Rate
 - Churn Rate

Technical Processes

- PivotTables
- Average
- Max
- Min
- Visualizations

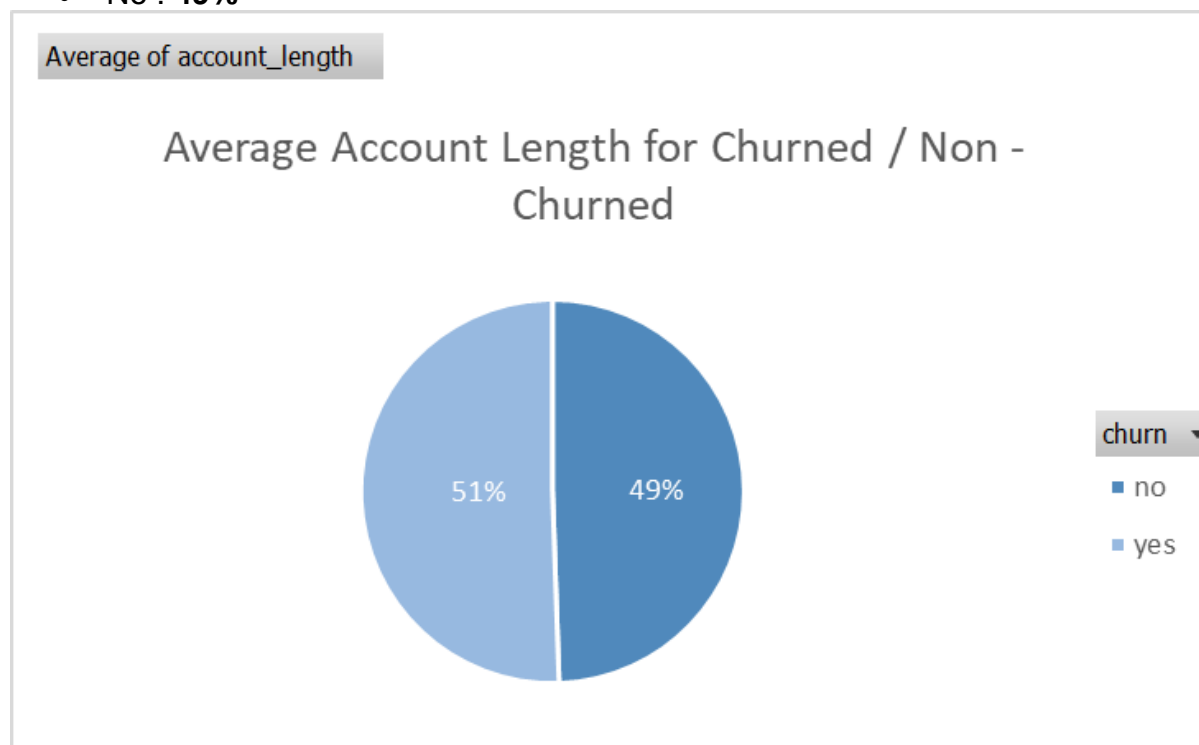
Recommended Analysis:

1. **How many customers have churned, and what is their proportion compared to the total customer base?**
 - It is the total churn proportion
 - It shows **14%** is **churn**
 - **86%** has **not churned**.



2 . What is the average account length for churned customers compared to non-churned customers? Does account tenure influence churn?

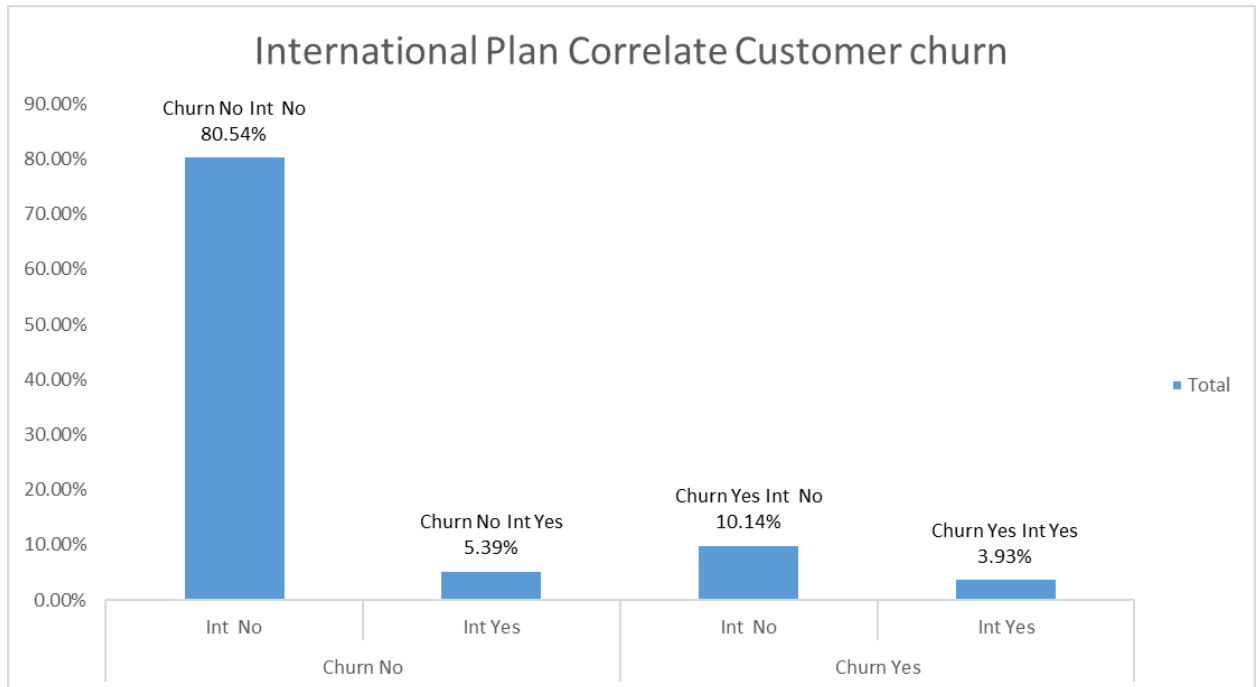
- Average account length : Yes : **51%**
- No : **49%**



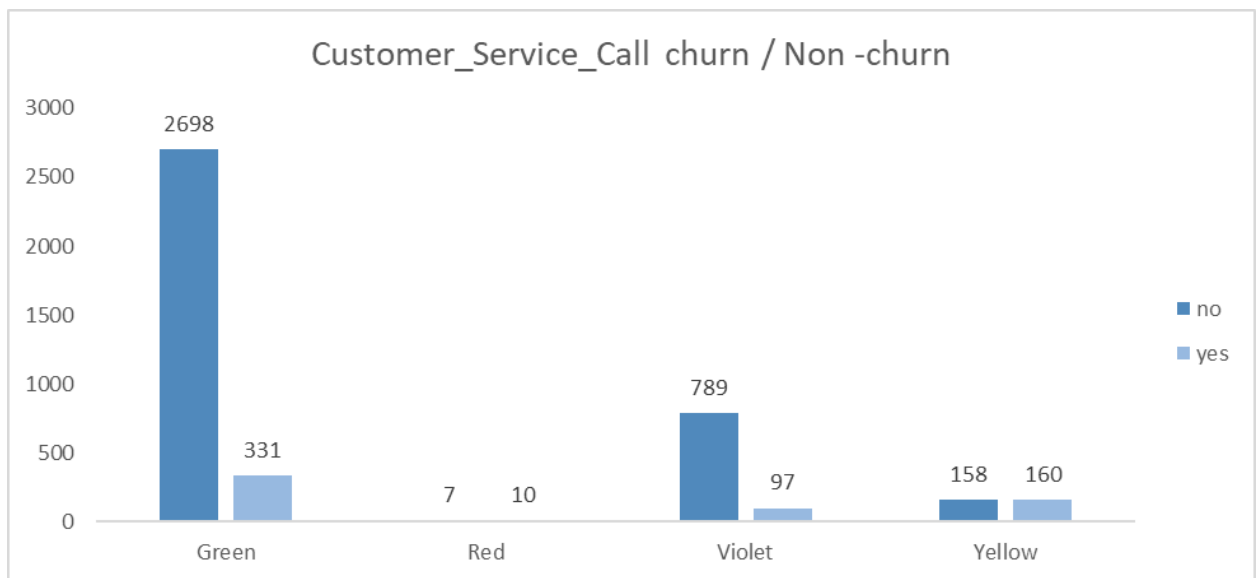
3. How does the subscription to international plans correlate with customer churn?

- Churn Yes :
 - Churn + International Plan : YES - **3.93%**

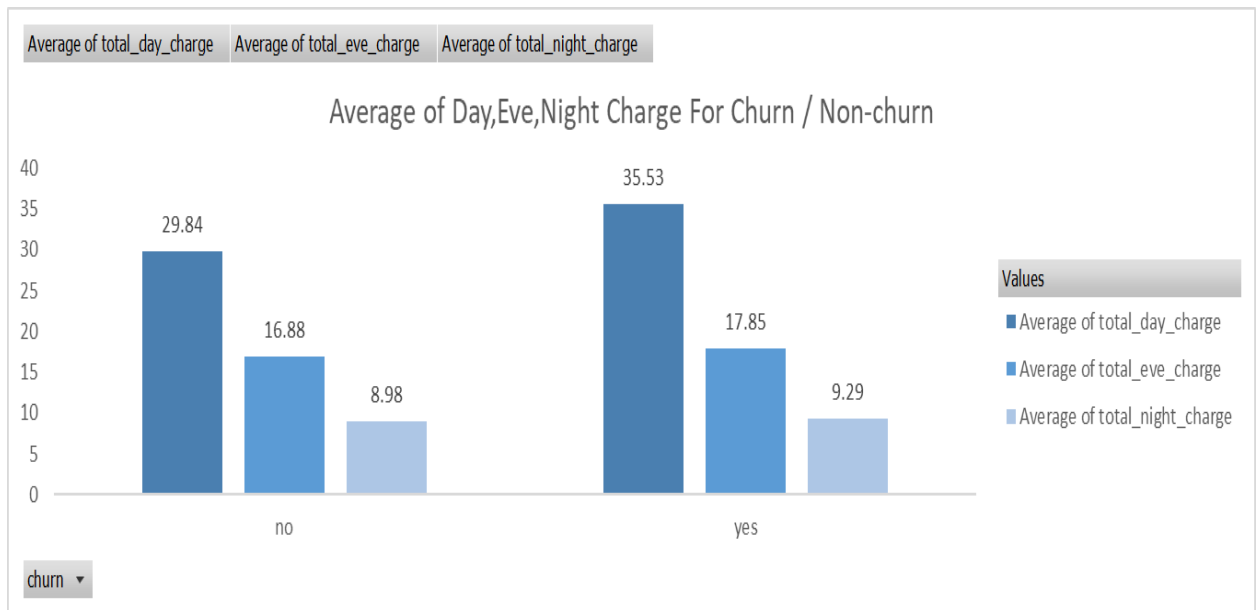
- Churn + International Plan : NO - **80.54%**
- Churn NO + International Plan YES - **5.39%**
- Churn YES + International Plan NO - **10.14%**



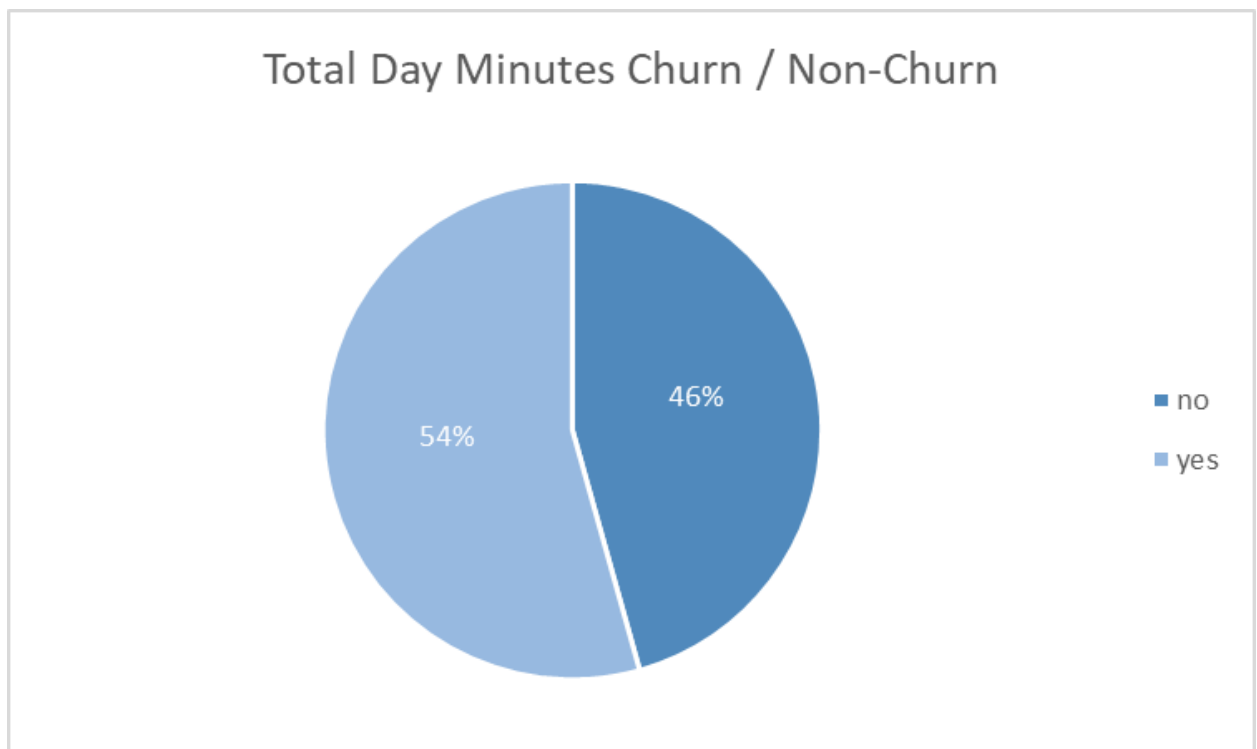
4. Is there a significant difference in the number of customer service calls between churned and non-churned customers?



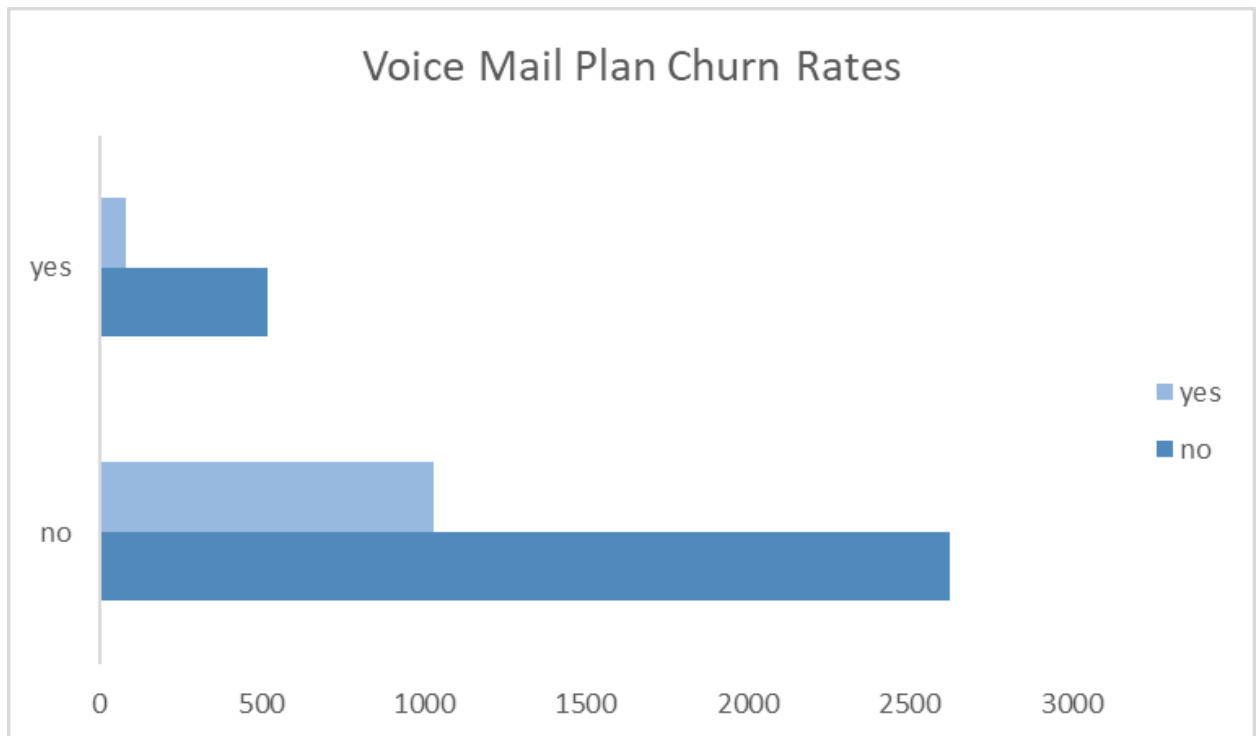
5. Do day, evening, and night call charges significantly differ between churned and non-churned customers?



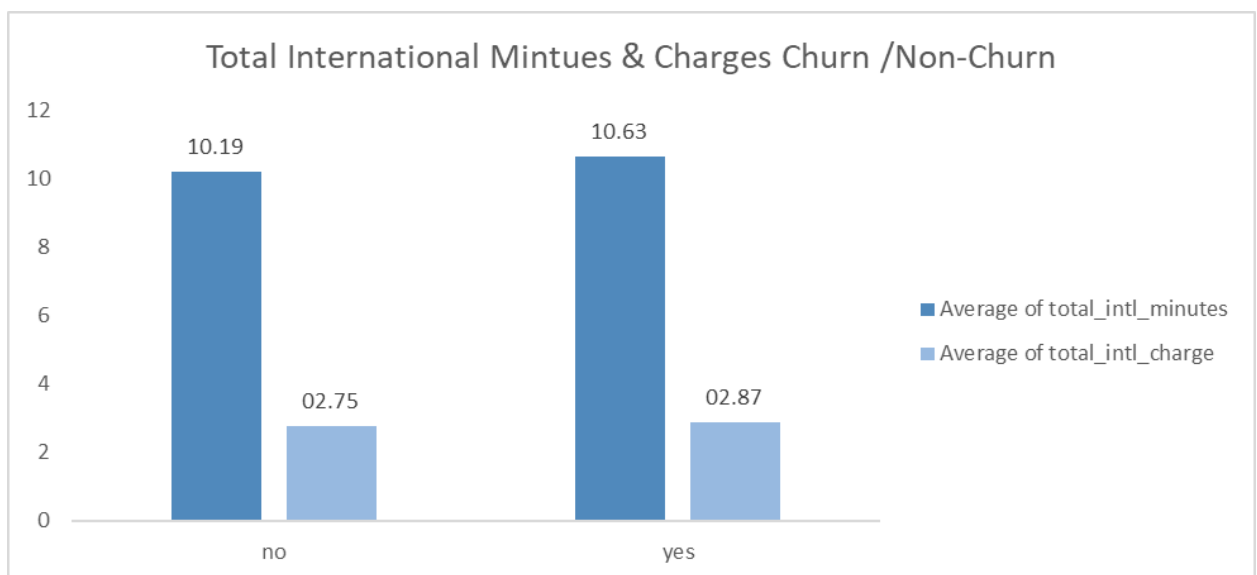
6. What is the relationship between total day minutes and churn?



7. How does having a voice mail plan affect churn rates?



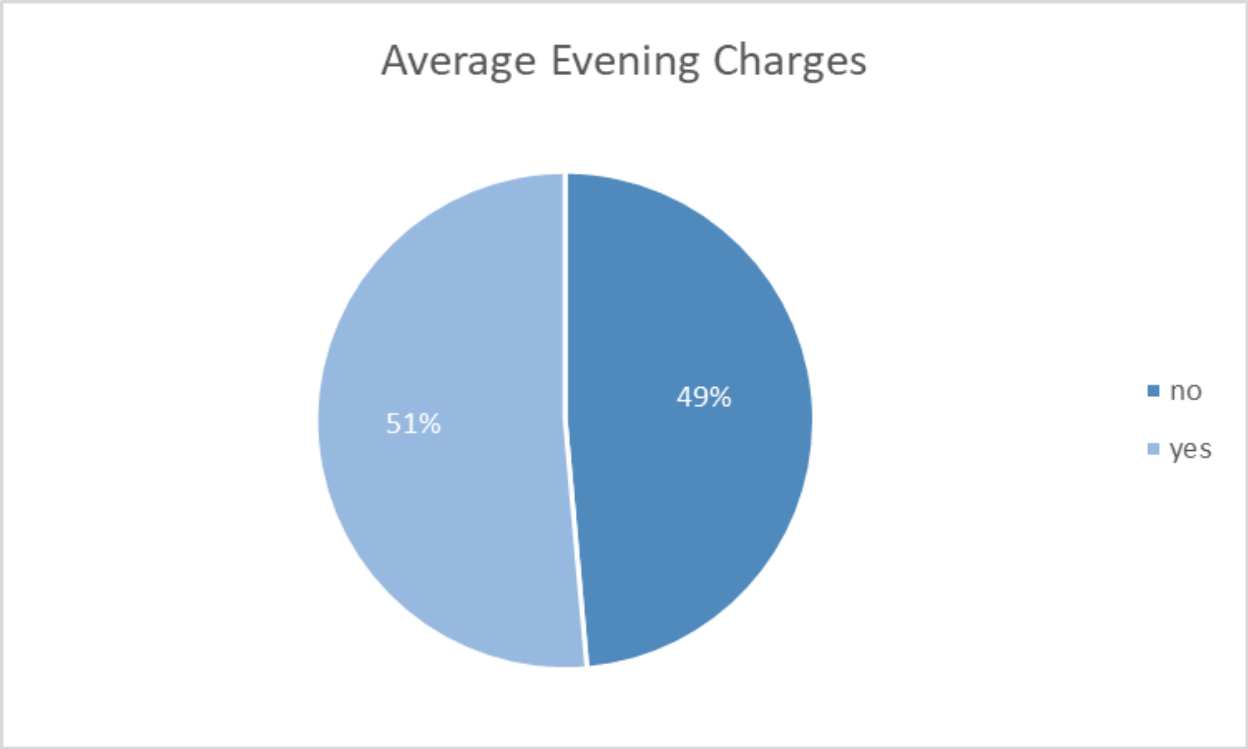
8. Analyze the total international minutes and charges for churned vs. non-churned customers. Are higher usage and charges associated with higher churn?



9. Is there a correlation between the number of total day calls and churn?

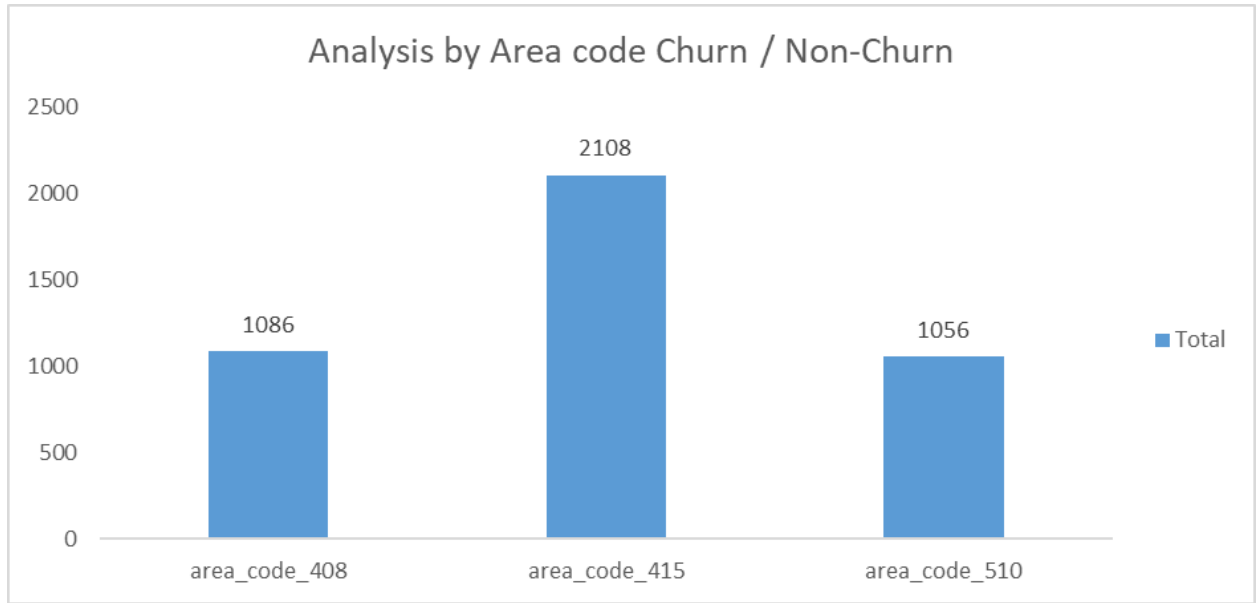
- A2:A4251 : **Total_Day_Calls**
- B2:B4251 : **Churn no :0 , yes:1**
- =CORREL(A2:A4251,B2:B4251) : **0.01164**
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10. Compare the average total evening charges for churned vs. non-churned customers. Is there a significant difference?



11.Perform a segmented analysis of churn by area code. Is there a particular area with a significantly higher churn rate?

Row Labels	Count of churn
area_code_408	25.55%
area_code_415	49.60%
area_code_510	24.85%
Grand Total	100.00%



Project owner

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