

### **Table of Contents**

Introduction	1
Data Preparation	2
Dashboard Design and Features	
Key Visualizations	
Key Insights	
Recommendations	
Conclusion	

## Introduction

Customer churn poses a significant challenge to telecom companies, directly impacting revenue and market position. This report presents an analysis of customer churn trends for **Vertex Mobile Net** using Power BI. The goal is to identify critical drivers of churn, recommend strategies for customer retention, and align insights with key performance indicators (KPIs).

## **Data Preparation**

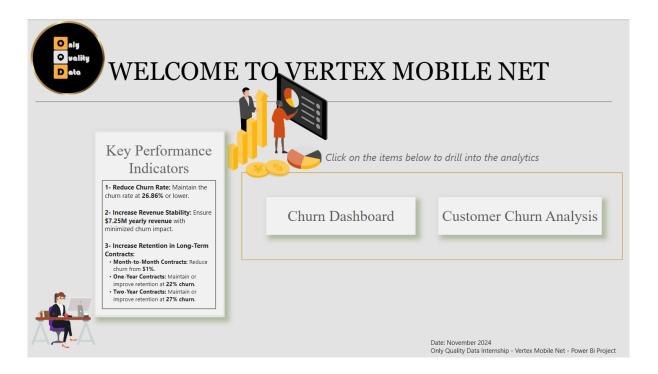
The dataset provided by Vertex Mobile Net consisted of customer demographics, account details, service usage, and payment information. Key steps in data preparation included:

- Data Cleaning: Addressing missing values and inconsistencies.
- Data Transformation: Using Power Query to restructure raw data for analysis.
- Feature Engineering: Deriving new metrics such as churn risk scores and Senior percentage, Total Churns, Total Customers, Average Customer Service Call and State, USA.

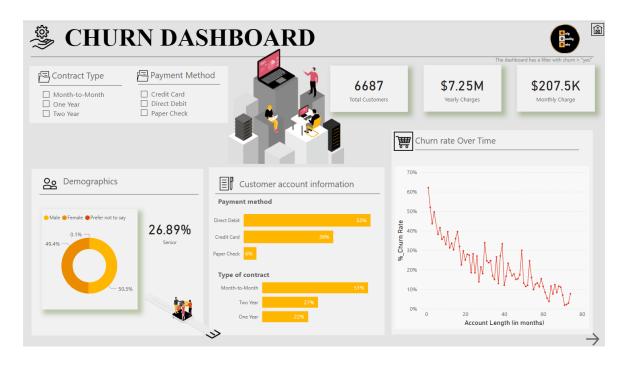
## **Dashboard Design and Features**

The dashboard is organized into the following main sections:

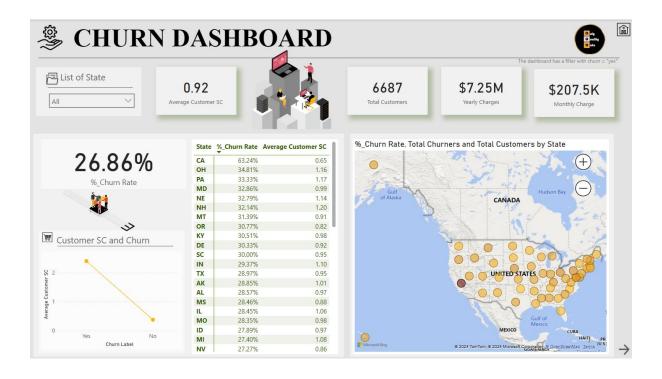
#### 1. Welcome



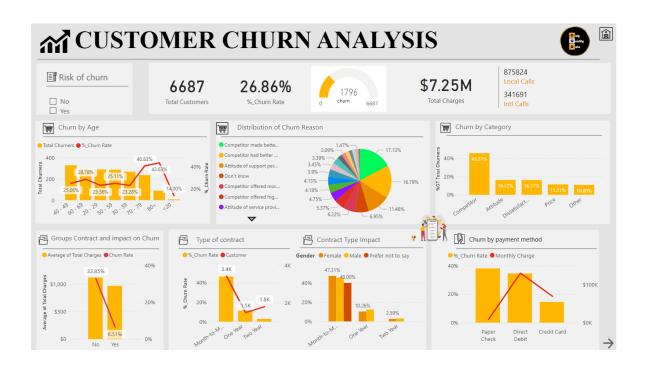
#### 2. Customer insight 1

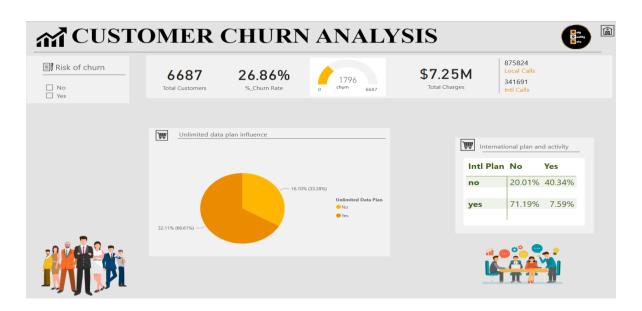


### 1. Customer insight\_Cont'd



#### 2. Customer Churn Analysis





The churn analytics dashboard was designed with user interactivity and actionable insights in mind. Key features include:

Filters and Drilldowns: Interactive filters by contract type, payment method, and customer demographics.

Dynamic Visuals: Interactive charts and maps to explore churn by geography, customer type, and behavior.

KPI Tracking: Indicators for churn rate (26.86%) and annual revenue (\$7.25M

## **Key Visualizations**

The dashboards included impactful visualizations:

- Churn Over Time: A line chart showing churn rates against account length.
- **Geographic Heatmap**: States with the highest churn, highlighting California (63.24%) as the top concern.
- Contract Type Comparison: Bar charts illustrating higher retention in two-year contracts compared to month-to-month contracts.
- Customer Service Impact: Scatter plots correlating service call frequency with churn rates.

# **Key Insights**

- Contract Type Influence: Customers with month-to-month contracts had a 51% churn rate, compared to 27% for two-year contracts.
- **Group Plans are Effective**: Group plan customers exhibited a significantly lower churn rate (6.51%).
- **Onboarding is Critical**: A churn rate of 62.10% in the first month underscores the importance of initial customer experiences.
- Customer Service Calls: High call volumes correlate with increased churn, suggesting unresolved complaints or dissatisfaction.

### Recommendations

Based on the analysis, the following strategies are recommended:

- 1. **Promote Long-Term Contracts:** Offer incentives for transitioning from month-to-month to one- or two-year contracts.
- 2. **Enhance Onboarding Programs:** Improve the first-month experience with targeted support and engagement strategies.
- 3. **Revise Unlimited Data Plans:** Investigate customer perceptions of pricing and value for unlimited plans, as they exhibit higher churn rates (15.42%).
- 4. **Optimize Customer Service:** Address the root causes of frequent service calls to improve satisfaction and reduce churn.

### **Conclusion**

This project successfully identified critical factors influencing customer churn and proposed actionable recommendations for **Vertex Mobile Net**. By addressing these insights, Vertex Mobile Net can achieve its KPIs, reduce churn, and ensure stable revenue growth. The analysis underscores the value of data-driven decision-making in fostering customer loyalty and sustaining business success.