



FINAL PROJECT (MBE4)

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PROJECT INSIGHTS

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Churn Rate

The churn rate can be calculated by determining the proportion of customers who have stopped using the services over a certain period. This dataset likely contains information on churn status (whether a customer churned or not) and various customer attributes.

2

Demographic Analysis

•Gender: Analyzing churn rates based on gender can provide insights into whether there's a significant difference in churn behavior between male and female customers.

Age: Understanding how churn rates vary across different age groups can help identify segments that are more likely to churn

3

Marital Status

•Churn rates may differ based on marital status. For example, single customers might have different churn behavior compared to married customers.

4

Service Subscription

•Analyzing churn rates based on the type of service subscribed (DSL, Fiber Optic) can reveal which service has a higher likelihood of churn. This could be due to factors such as service quality, pricing, or customer preferences.

5

Contract Length

- Customers with different contract lengths (Monthly, Yearly) may exhibit varying churn behavior. For instance, customers on monthly contracts might have higher churn rates compared to those on yearly contracts.

6

Customer Satisfaction

- Exploring customer satisfaction metrics like satisfaction scores, monthly charges, and usage patterns can provide insights into factors influencing churn. Dissatisfied customers or those facing price hikes may be more likely to churn.

7

Geographic Analysis

- The dataset may include geographic information such as latitude and longitude. Analyzing churn rates based on geographic regions can help identify areas with higher churn rates.

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Predictive Modeling

- Utilizing predictive modeling techniques can help forecast customer churn. By analyzing historical data and customer attributes, predictive models can identify customers at risk of churn and inform proactive retention strategies.

Primary Factors Contributing to Churn

Contract Type

Customers with monthly contracts are more likely to churn compared to those with yearly contracts. This indicates that long-term commitments may lead to higher customer retention

Internet Service Type

Customers subscribed to "Fiber Optic" internet service are more likely to churn compared to those with DSL. This suggests that there may be issues related to the quality or pricing of the Fiber Optic service..

Additional Services

Customers who have subscribed to additional services like online security, tech support, and streaming TV are less likely to churn. Offering valuable add-on services can improve customer retention.

Payment Method

Customers who use electronic check as their payment method have a higher churn rate compared to other payment methods. This could indicate issues with the electronic check payment process or dissatisfaction with associated services.

Customer Demographics

Certain demographic factors such as age, marital status, and gender may also influence churn rates. For example, older customers or those who are single may be more likely to churn.

Monthly Charges

Customers with higher monthly charges are more likely to churn. This could be due to dissatisfaction with pricing or perceived value for money.

Customer Tenure

Newer customers tend to churn at higher rates compared to long-term customers. Providing incentives or personalized offers to encourage loyalty among new customers may help reduce churn.

Demographic and Behavioral Characteristics

we can identify several demographic and behavioral characteristics that differentiate churned customers from those who continue to be active.
Some of these characteristics include:

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Age: Older customers may be less likely to churn compared to younger ones..

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Marital Status: Married customers may have a lower churn rate compared to single customers.

3

Gender: While not always significant, gender may play a role in churn behavior. Customers are most likely to churn.

4

Contract Type: Customers with monthly contracts are more likely to churn than those with yearly contracts.

5

Internet Service Type: Customers with Fiber Optic internet service may have a higher churn rate compared to DSL users.

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Additional Services: Subscribing to additional services like online security or device protection may decrease the likelihood of churn.

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Payment Method: Customers using electronic check payment methods may have a higher churn rate compared to those using other payment methods.

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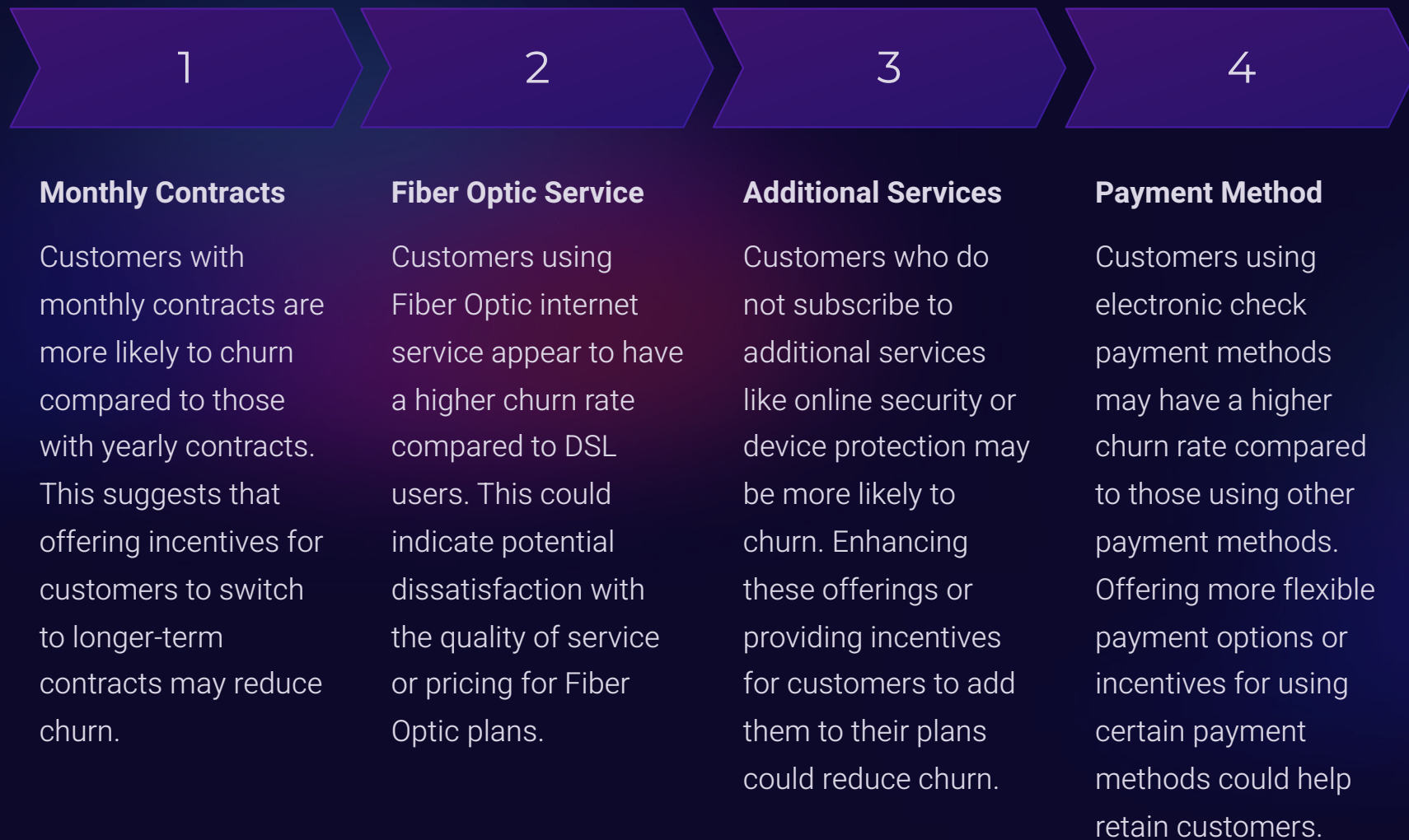
Monthly Charges: Higher monthly charges may increase the likelihood of churn.

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Customer Tenure: Newer customers may be more likely to churn compared to long-term customers.

Improving Customer Retention

By identifying these specific services or contract terms that contribute to churn, businesses can explore opportunities to modify or enhance these offerings to reduce churn rates and improve customer retention.



Machine Learning Algorithms

These features can be used to train machine learning algorithms such as logistic regression, decision trees, random forests, or gradient boosting models to predict churn. By analyzing the importance of these features in the trained model, we can determine which variables contribute most to the predictive accuracy and focus on optimizing those factors to improve the overall performance of the churn prediction model.



Contract Type

Whether the customer has a monthly or yearly contract.



Internet Service Type

Whether the customer uses Fiber Optic or DSL internet service.



Additional Services

Subscription to additional services like online security, device protection, etc.



Payment Method

The method of payment chosen by the customer.



Tenure

The duration for which the customer has been with the company.



Monthly Charges

The amount the customer pays per month for the services.



Total Charges

The total amount charged to the customer over the entire period.



Age

The age of the customer.

Conclusion and Key Takeaways

Business Implications: Addressing customer churn is crucial for maintaining long-term profitability and sustaining business growth. By identifying the primary factors driving churn and implementing targeted strategies to mitigate it, companies can enhance customer satisfaction, loyalty, and retention.

Behavioral Patterns: Certain behavioral patterns, such as subscription to specific services or contract terms, can differentiate churned customers from those who remain active.

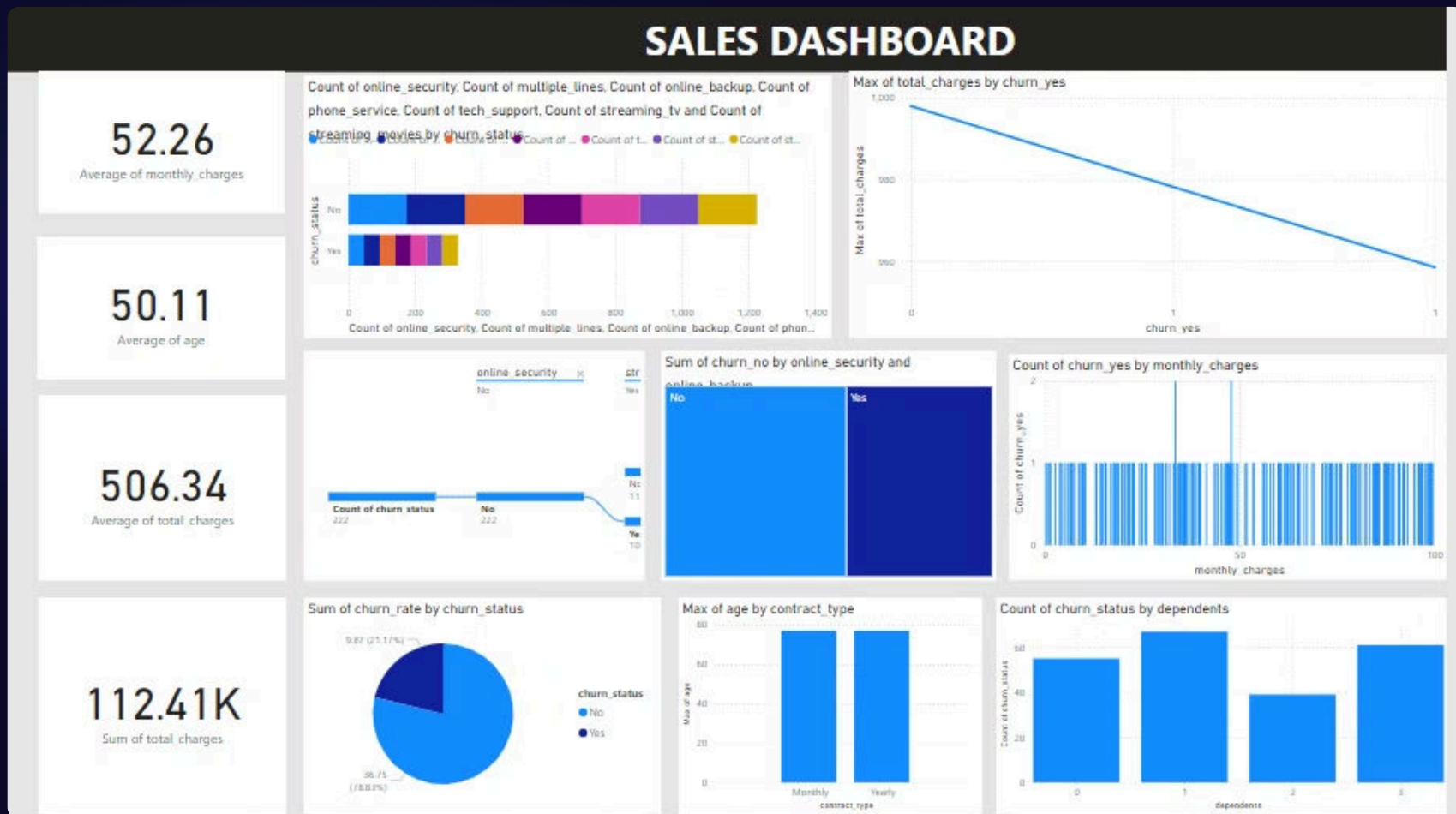
Factors Influencing Churn: Several factors contribute to customer churn, including contract type, internet service type, additional services subscribed to, payment method, tenure, monthly charges, total charges, and age.

Opportunities for Improvement: There are opportunities to modify or enhance service offerings, contract terms, and customer experience to reduce churn. This could involve improving service quality, offering personalized incentives, or introducing loyalty programs.

Demographic Analysis: Older customers appear to be more prone to churn, suggesting a need for targeted retention strategies tailored to this demographic segment.

Predictive Modeling: Building a predictive model using machine learning techniques can help forecast customer churn accurately. Key features such as contract type, internet service type, and tenure contribute significantly to the predictive accuracy of the model.

Sales Dashboard



THANK YOU