

# Executive Summary:

This project involves a comprehensive analysis of customer churn behavior with a focus on identifying key factors influencing churn. Through detailed data visualizations, several insights have been drawn to better understand the relationship between different variables and customer churn.

## Month-to-Month Contracts Are High Risk for Churn:

- **Insight:** Customers with **month-to-month contracts** exhibit a significantly higher churn rate compared to those with longer-term contracts (e.g., one-year or two-year contracts). This suggests that customers who are not bound by long-term commitments are more likely to leave the service.
- **Implication:** These customers may be less loyal, more price-sensitive, or quicker to switch services when they encounter issues or find better deals.
- **Actionable Strategy:**
  - Introduce incentives to encourage month-to-month customers to switch to longer-term contracts. For example, offering discounts, loyalty programs, or value-added services for customers who upgrade to an annual plan.
  - Conduct proactive outreach to month-to-month customers, offering personalized promotions or addressing potential service issues before they consider canceling.

## Electronic Check Payment Method Strongly Correlates with Higher Churn:

- **Insight:** The **electronic check** payment method has the highest churn rate among all payment types.
- Customers using electronic checks are more likely to churn compared to those using credit cards, bank transfers, or mailed checks.
- **Possible Reasons:**
  - **Convenience:** Electronic check users may find the payment process more cumbersome, unreliable, or less secure than other methods. There could also be technical issues, higher chances of payment failures, or delays in transaction processing.
  - **Demographics:** These customers may represent a specific demographic that is less satisfied with the service, indicating a need for deeper analysis into the characteristics of this customer segment.

## Actionable Strategy:

- Improve the **user experience** for electronic check payments by ensuring smoother transactions, fewer errors, and more transparent communication around payment processing.
- **Educate** and incentivize users to switch to more stable and convenient payment methods like credit cards or bank transfers by highlighting benefits such as easier payment handling, fewer payment failures, or faster transaction processing.
- If electronic check users belong to a specific demographic or region, tailor retention efforts to address their
- unique concerns.

# One-Year and Two-Year Contracts Show Significantly Lower Churn Rates:

- **Insight:** Customers on **one-year and two-year contracts** are less likely to churn, indicating that longer-term contracts promote higher customer retention.
- **Customer Behavior:** Customers who commit to longer contracts likely feel more confident about the value and reliability of the service. Additionally, these customers may feel a stronger psychological commitment due to their long-term contract.
- **Actionable Strategy:**
  - **Promote longer-term contracts:** Offer financial incentives (e.g., discounts, perks) for switching to one- or two-year contracts. This not only locks in revenue for a longer period but also reduces the likelihood of churn.
  - **Implement mid-contract check-ins:** Conduct periodic check-ins with customers on longer contracts to ensure satisfaction and address any service concerns. By resolving issues early, you can further decrease the likelihood of churn.
  - **Target new customers** with introductory offers that encourage opting into one- or two-year plans rather than monthly options.

## Payment Method Impacts Customer Retention:

- Insight:** Customers using **credit cards** or **bank transfers** are less likely to churn compared to those using electronic checks. These methods are likely more convenient, faster, and perceived as more reliable.
- Convenience Factor:** Credit cards and bank transfers tend to offer automatic recurring payments, which require less manual intervention and reduce the chance of missed or delayed payments, which can trigger customer dissatisfaction.
- Actionable Strategy:**
  - Encourage credit card or bank transfer adoption:** Develop targeted campaigns to move customers from electronic checks to credit cards or bank transfers by offering benefits such as **automatic payment setups**, ease of cancellation or refunds, and security features.
  - Loyalty incentives:** Provide **exclusive offers** or loyalty points to customers who use more efficient payment methods. This can include faster support services, rewards for continuous payment, or even lower fees.
  - Monitor payment issues:** Continuously analyze the payment methods associated with churn to detect and resolve any recurring issues specific to certain payment platforms or providers

## Actionable Customer Segmentation:

**1. Insight:** By analyzing the relationship between **contract type** and **payment method** alongside churn, you can identify high-risk customer segments.

### **2. Actionable Strategy:**

1. Segment customers by both contract type and payment method to tailor retention strategies. For example, **month-to-month customers using electronic checks** would be the highest priority for churn-prevention efforts, as they represent a particularly at-risk group.
2. Use predictive models or machine learning to identify **early churn signals** and address issues (e.g., frequent payment issues, lack of engagement) before customers are lost.

## Actionable Metrics:

- **Churn by Contract Type:**
  - Month-to-Month: 43%
  - One-Year: 11%
  - Two-Year: 3%
- **Churn by Payment Method:**
  - Electronic Check: 45%
  - Credit Card: 15%
  - Bank Transfer: 17%
  - Mailed Check: 19%



These detailed insights provide a roadmap for improving customer retention by targeting at-risk segments, optimizing payment methods, and promoting longer-term contracts. Each action should be aligned with customer behavior patterns to drive loyalty and reduce churn rates.