

# TELCO CHURN ANALYSIS SUMMARY

1. **Customer Churn Rate:** The analysis reveals that **26.54%** of the customers have churned, while **73.46%** have stayed. This indicates that just over a quarter of the customer base is at risk of leaving, which is a significant portion.
2. **Churn by Tenure:**
  - Customers with a **short tenure (1-2 months)** have a much higher churn rate, indicating that the early stages of a customer's lifecycle are critical for retention.
  - In contrast, **longer-tenured customers (over several years)** tend to stay with the company. The histogram shows a stark divide, with churn being significantly higher in the early months and lower for long-term users. Retention efforts should focus on onboarding and ensuring customer satisfaction during the first few months.
3. **Churn by Contract Type:**
  - The analysis of contract types shows that **Month-to-Month contracts** contribute significantly to churn. About **42%** of customers with Month-to-Month contracts have churned, compared to only **11%** for those with **1-year contracts** and **3%** for those with **2-year contracts**.
  - This suggests that longer-term contracts provide more stability and reduce churn. Offering incentives for longer contracts could potentially reduce the churn rate.
4. **Churn by Service Usage:**
  - Customers who do **not use additional services** like **OnlineSecurity**, **TechSupport**, or **DeviceProtection** are more likely to churn. For instance, around **36%** of customers without **OnlineSecurity** services churned, compared to about **15%** of those who use these services.
  - **InternetService** type also plays a role: **Fiber optic** users have a higher churn rate (**30%**) compared to **DSL** users (**20%**), possibly due to competition or pricing differences.
5. **Churn by Gender:** Interestingly, there doesn't appear to be a significant gender difference in churn rates. Both **male** and **female** customers exhibit nearly equal churn rates, suggesting that gender may not be a strong factor influencing customer retention.
6. **Churn by Phone and Internet Services:**
  - Customers without **PhoneService** churn at a lower rate, while those with **MultipleLines** show slightly higher churn tendencies.
  - Customers without **InternetService** exhibit almost no churn, while those with **Fiber optic Internet** have the highest churn rate, suggesting a potential dissatisfaction with fiber services, or price sensitivity in that segment.

**Key Takeaways:**

- **Tenure** and **contract type** are the most significant factors influencing churn. Customers with short tenures or month-to-month contracts are far more likely to leave.
- Customers who utilize **additional services** like OnlineSecurity or TechSupport are less likely to churn, indicating that bundling services could improve retention.
- Efforts to reduce churn should focus on offering incentives for longer contracts, improving the onboarding experience, and possibly addressing pricing or service issues with fiber optic customers.

This detailed analysis provides actionable insights into how service providers can focus their retention strategies to reduce churn, particularly among new customers and those on short-term contracts.