

- **Summary of the key insights of the Customer Churn Analysis :**

Objective

The primary goal of this project is to perform Exploratory Data Analysis (EDA) on telecom customer data to understand the **factors influencing churn**—i.e., why customers discontinue their subscriptions. By identifying the critical variables associated with churn, businesses can develop **targeted retention strategies**, optimize service offerings, and improve customer satisfaction.





Key Insights from the Data :

Dataset Size: **7,043 customers**


Churned Customers: **1,869** → **Churn Rate: ~26.5%**

1. **Contract Type Strongly Impacts Churn**

- Customers with **monthly contracts** represent the **highest churn rate**.
- In contrast, **1-year and 2-year contract holders** are **significantly more loyal**.
-  **~42% of monthly contract holders** have churned vs. only **~11% for 2-year contracts**.

 **Recommendation:** Promote long-term plans with discounts and benefits.


2. **Tenure and Churn Are Inversely Related**

- Most customers who **churned** had **tenure less than 12 months**.
- Customers with **tenure above 24 months** are **far less likely** to leave.
-  Approximately **60% of customers with <12 months tenure** have churned.


 **Recommendation:** Improve early-stage customer experience and onboarding.


3. Lack of Add-On Services Correlates with Higher Churn

- Customers **without services like OnlineSecurity, TechSupport, and DeviceProtection** are **more likely to churn**.
- For instance, among those with **no TechSupport**, **32% churned**, compared to **only 15%** of those with support.

 *Recommendation:* Bundle services and promote them during customer acquisition.


4. Fiber Optic Internet Users Churn More

- Customers using **Fiber Optic** connections show a higher churn rate than DSL users.
-  **~31% of Fiber Optic users** churned vs. only **14% of DSL users**.

 *Insight:* Investigate user satisfaction or pricing concerns with Fiber Optic offerings.

5. Payment Method Plays a Role

- Customers using **Electronic checks** show a significantly **higher churn rate (~34%)**.
- Other methods like **bank transfer or credit card** have churn rates below **15%**.

 *Recommendation:* Incentivize secure and seamless payment options through automated methods.

Conclusion

This analysis provides a solid foundation for:

- Predicting churn-prone customers
- Designing **data-driven retention strategies**
- Improving product-market fit for long-term growth

By leveraging these insights, telecom companies can **enhance customer satisfaction** and **increase lifetime value**.