**Summary of Telecom Customer Churn Analysis**

The dataset analyses **a telecom company's customer churn (leaving the service)**. The analysis includes factors like **internet services, tech support, payment methods, tenure, and contract type** to understand why customers leave.

**Key Insights:**

✅ **Churn Rate:**

* **26.5% of customers have churned.**
* **Early-stage customers churn more**, indicating dissatisfaction in the first few months.

✅ **Phone & Multiple Lines:**

* Customers with **multiple lines churn more** than those with a single line.

✅ **Internet Service:**

* **Fiber optic users have the highest churn rate** (likely due to pricing or service issues).
* **DSL users churn less**, and **customers without internet services churn the least**.

✅ **Online Security & Backup:**

* **Customers without security or backup services churn more** than those with these services.

✅ **Device Protection & Tech Support:**

* **Lack of tech support increases churn**—customers with support stay longer.
* **Device protection reduces churn**, showing its importance in customer retention.

✅ **Streaming TV & Movies:**

* **Customers without streaming services churn more**, meaning bundled entertainment could improve retention.

✅ **Payment Method & Billing:**

* **Customers using Electronic Check churn the most**, followed by Mailed Check users.

✅ **Contract Type:**

* **Month-to-month customers churn the most**, while long-term contract users churn less.

**Recommendations to Reduce Churn**

📌 **Improve Customer Retention in Early Months:**

* Offer **onboarding discounts, loyalty programs, or better initial support** to reduce early-stage churn.

📌 **Optimize Fiber Optic Plans:**

* Address **pricing or service quality concerns** to reduce fiber optic user churn.

📌 **Promote Security, Backup & Tech Support:**

* **Encourage customers to opt for tech support, security, and backup services** to increase loyalty.

📌 **Introduce Streaming Bundles:**

* Offer **discounted streaming services** to improve engagement and reduce churn.

📌 **Encourage Automatic & Credit Card Payments:**

* Reduce reliance on **Electronic Checks & Mailed Check**, as they have higher churn rates.

📌 **Incentivize Long-Term Contracts:**

* Offer **discounts for annual contracts** to shift users from month-to-month plans.