

Customer Churn Analysis Project

Summary and Recommendation

1. Customer Demographics & Tenure:-

- The dataset consists of **7,043 customers**, with tenure ranging from **1 to 72 months**.
- **Senior citizens make up approximately 16%** of the customer base, and their churn rate is noticeably higher than non-senior customers.
- Customers with a shorter tenure (less than **12 months**) have a **higher churn rate of around 45%**, compared to long-term customers (more than 24 months), where churn drops to **20-25%**.

2. Service Subscription Impact on Churn:-

- **Phone Service:** Around **90% of customers** have phone services, and churn is relatively balanced between those with single and multiple lines.
- **Internet Service:**
 - **Fiber Optic users have the highest churn rate (~41-45%)**, whereas DSL users have a much lower churn rate (~23-25%).
 - Customers without internet service show the lowest churn (~7-10%).
- **Online Security & Tech Support:**
 - Customers **without Online Security or Tech Support churn at a rate of 45-50%**, while those subscribed to these services have a significantly lower churn (~15-20%).
 - This indicates that security and support services improve customer retention.

3. Contract & Billing Influence:-

- **Contract Type:**
 - Customers on **month-to-month contracts have the highest churn rate (~60%)**, whereas those on **one-year or two-year contracts churn at only 10-15%**.
 - This confirms that longer contracts increase customer retention.
- **Paperless Billing:**
 - Customers opting for **paperless billing have a higher churn rate (~35-40%)**, possibly due to easier switching.
 - Those with traditional billing methods churn at a lower rate (~20-25%).

4. Streaming Services & Churn:-

- Customers **who do not subscribe to StreamingTV or StreamingMovies churn at a higher rate (~35-40%)**, indicating that entertainment services may play a role in retention.

Key Business Takeaways & Recommendations:-

1. **Focus on Long-Term Contracts:** Encourage customers to switch from month-to-month to annual contracts by offering discounts, loyalty rewards, or bundled services.
2. **Enhance Value-Added Services:** Promote Online Security and Tech Support as essential services to reduce churn, especially among Fiber Optic users.
3. **Improve Retention Among High-Risk Groups:**
 - Senior citizens and short-tenure customers need better engagement strategies.
 - Special retention campaigns (discounts, personalized offers) should target Fiber Optic and month-to-month customers.
4. **Modify Billing & Payment Options:** Since paperless billing users churn more, offering incentives for traditional billing or hybrid models may help.
5. **Leverage Streaming Services for Retention:** Bundle streaming services with other plans to encourage long-term commitment.

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