**1. Overall Churn Rate**

* Approximately **26.5% of customers** have churned, as shown by the pie chart in the analysis.
* **Actionable Insight:** This is a critical churn rate in the telecom industry. focus on retention strategies across high-risk groups.

**2. Customer Segments with Higher Churn Risk**

**🔹 Senior Citizens**

* Around **42% of senior citizens** have churned compared to **24% of non-senior citizens**.
* **Strategy:** Offer personalized support, tech training, and discounts for older customers to improve retention.

**🔹 Early Tenure Customers**

* The histogram of tenure shows most churned customers had **tenure ≤ 4 months**.
* **Strategy:** Design an onboarding program that includes early loyalty rewards or proactive check-ins within the first 3 months.

**3. Contract Duration & Churn**

| **Contract Type** | **Churn %** |
| --- | --- |
| Month-to-Month | **43%** |
| One Year | 11% |
| Two Year | 3% |

* **Strategy:** Encourage long-term contracts via discounts, device upgrades, or exclusive features.

**4. Value-Added Services Reduce Churn**

Customers **not using** the following services have noticeably **higher churn**:

| **Service** | **Churn Trend** |
| --- | --- |
| Online Security | Higher churn without it |
| Tech Support | Higher churn without it |
| Device Protection | Higher churn without it |

* **Strategy:** Bundle these services with popular plans or provide **free 3-month trials** to encourage adoption and stickiness.

**5. Internet & Payment Preferences**

**🔹 Internet Service Type**

* **Fiber Optic** users have **higher churn** than DSL or No Internet users.
  + Investigate connection issues or service quality complaints.

**🔹 Payment Method**

* **Electronic check users** churn significantly more than others.
  + Encourage switch to auto-payment or credit card through cashback or discounts.

**6. No Significant Impact Segment**

* **Gender:** No significant churn pattern based on gender was observed.
  + Focus on usage patterns and service experience instead of demographic segmentation.

**Conclusion & Recommendations**

* Focus retention campaigns on **month-to-month** users and **new joiners**.
* Design **custom plans** that promote usage of value-added services.
* Regularly monitor churn by service type and payment mode to adjust strategies.
* Consider using machine learning for churn prediction to trigger personalized offers.