# **Summary and Recommendation**

**Objective: This analysis identifies key factors influencing customer churn at Teco. Using descriptive statistics and visualizations (bar charts, pie charts, stacked bar charts), several behavioral and demographic trends have emerged**

**✅ Key Insights & Visual Interpretation**

**1. Overall Churn Rate**

* A pie chart revealed that approximately **26%** of customers have churned.
* This means **1 in every 4 customers** leaves the service, which is a critical concern.

**2. Gender-Based Churn**

* Churn is **evenly distributed across genders**.
* No significant difference in churn behavior between male and female customers (almost **equal percentages**).

**3. Senior Citizens**

* Senior Citizens churn at a much **higher rate (~42%)** than younger customers.
* Despite being a smaller portion of the customer base, they represent a disproportionate share of churns.

**4. Tenure Impact**

* Customers with a **tenure of less than 2 months** have the **highest churn rate (~45-50%)**.
* Long-tenure customers (over a year) show **very low churn (~10%)**, indicating service satisfaction builds over time.

**5. Contract Type**

* Customers on **Month-to-Month contracts** are most likely to churn (**~43% churn rate**).
* In contrast, **1-year and 2-year contract holders** have much lower churn (~11-17%), indicating that **long-term contracts reduce churn**.

**6. Services Used**

* Customers who **do not use Internet-related services (OnlineSecurity, TechSupport)** tend to churn more.
* For instance:
  + **Online Security not used → churn ~35%**
  + **Tech Support not used → churn ~38%**
* DSL users show **lower churn** compared to those with no internet or fiber connections.

**7. Payment Method**

* **Electronic Check users** are **most likely to churn (~45%)**.
* Those using **automatic credit card or bank payment methods** churn significantly less (around **15-20%**).

**📌 Recommendations**

1. **Target Senior Citizens** with loyalty programs or better service support to reduce their high churn rate.
2. **Encourage longer contracts** via discounts or benefits — month-to-month plans are clearly more volatile.
3. **Promote bundled services** like Internet with security features and tech support to increase retention.
4. **Discourage Electronic Check** usage by incentivizing auto-pay or credit card payments.