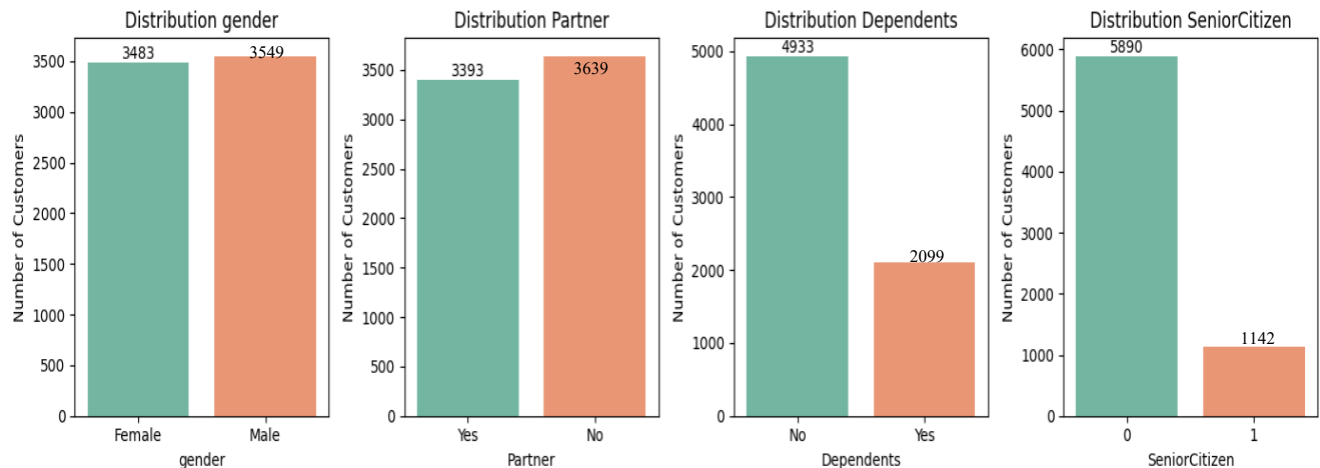


EDA of Telco Customers:

Demographics:



Observations:

- **Gender Distribution:**

- Fairly balanced: 3,483 Female vs 3,549 Male.
- No major skew, which suggests a gender-neutral customer base.

- **Partner Status:**

- Slightly more customers without a partner (3,639) than with one (3,393).
- This might be relevant for understanding household-based services or promotions.

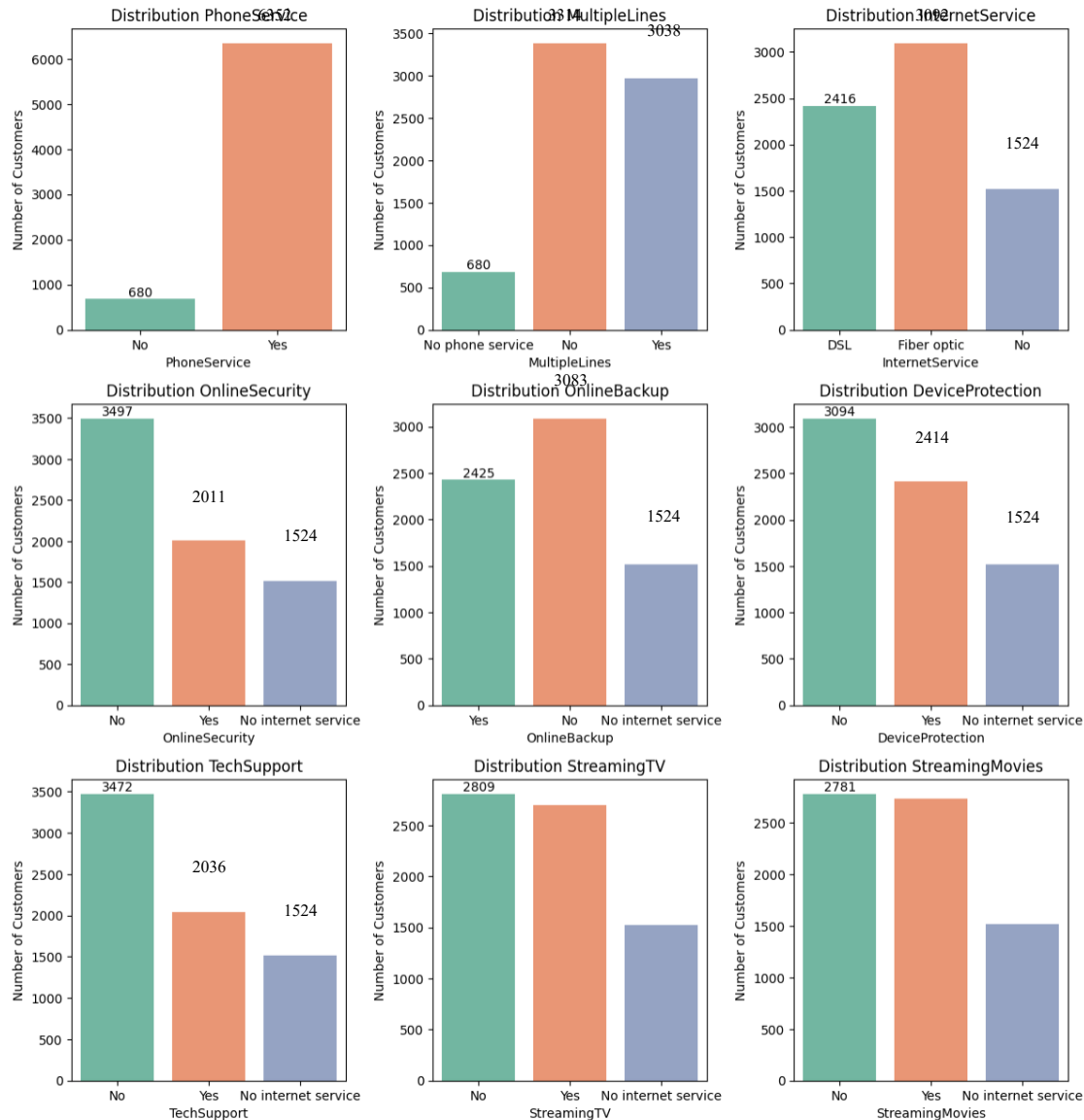
- **Dependents:**

- A majority (4,933) do not have dependents, compared to 2,099 who do.
- Indicates a predominantly independent or possibly younger customer base.

- **Senior Citizens:**

- A large portion (5,890) are not senior citizens, only 1,142 are.
- The product/service may appeal more to younger or middle-aged individuals.

Service Types:



Observations:

- **Phone Service:**
 - The vast majority (6,352) have phone service.
 - Only a small portion (680) do not, suggesting phone service is a nearly standard offering.

- **Multiple Lines:**

- Most customers with phone service have either multiple lines (3,038) or not (3,314).
- A smaller segment (680) has no phone service, aligning correctly.

- **Internet Service:**

- The largest segment uses **Fiber optic** (3,092), followed by **DSL** (2,416).
- Around 1,524 customers have **no internet service**, this group will affect the analysis of internet-based add-ons.

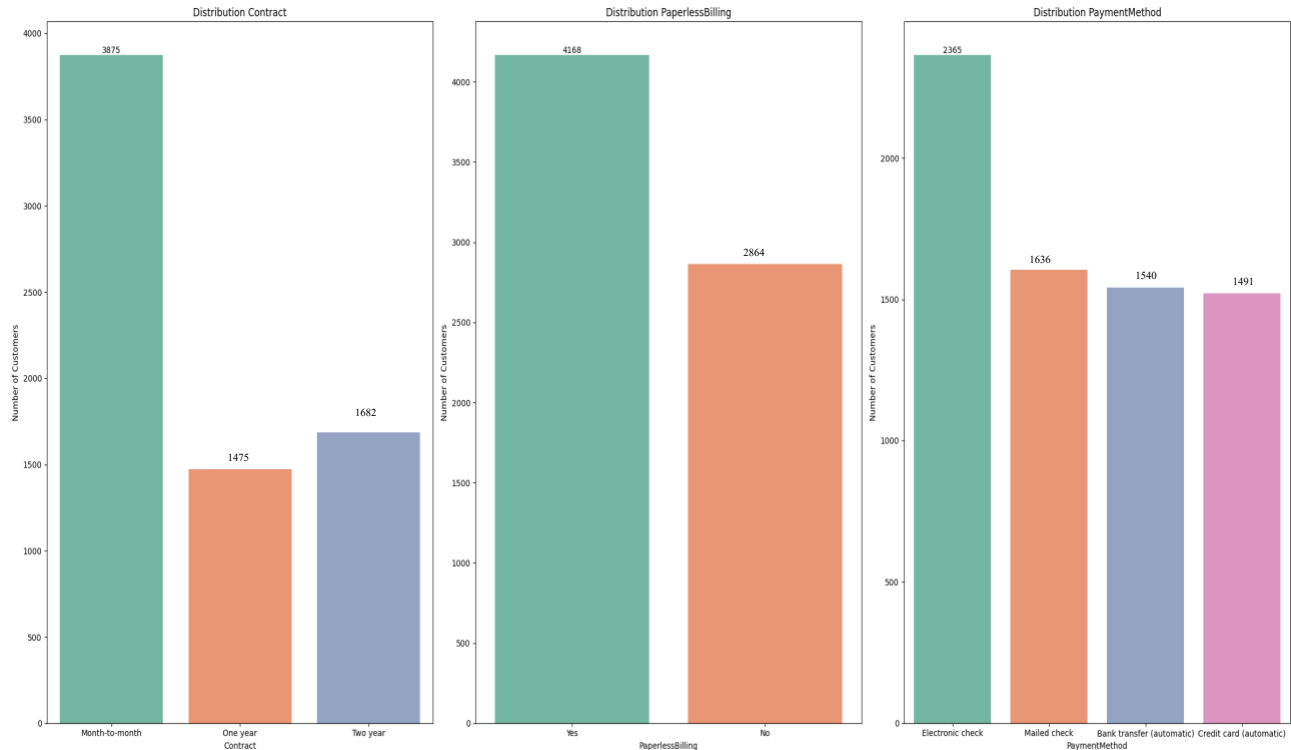
- **Online Security / Backup / Device Protection / Tech Support:**

- For all of these, "**No**" responses are greater than "**Yes**", indicating:
 - Customers are **not highly subscribed** to protection/support add-ons.
 - The "No internet service" group (1,524) is consistently shown and accounted for.

- **StreamingTV and StreamingMovies:**

- Slightly more customers **do not** subscribe to streaming services (2,800) than those who do (2,700).
- This could suggest that streaming services are not a primary driver of customer retention or attraction.

Payments:



Observations:

- **Contract Type:**

- A **majority (3,875)** of customers are on a **month-to-month** contract.
- Only **1,475** are on a **one-year** contract, and **1,682** are on **two-year** contracts.
- This skew toward short-term contracts often correlates with **higher churn**, as longer contracts usually imply higher commitment.

- **Paperless Billing:**

- **4,168 customers (~59%)** prefer **paperless billing**.
- This indicates a majority of users are comfortable with digital communication, but a significant number (~41%) still prefer traditional billing potential segmentation point.

- **Payment Method:**

- Most popular: **Electronic check (2,365 customers)**.
- Others are relatively balanced: **Mailed check (1,636)**, **Bank transfer automatic (1,540)**, **Credit card automatic (1,491)**.
- The high use of electronic checks (often associated with churn in Telco datasets) could signal a **riskier customer group**.

Conclusion:

Customer Demographics:

- **Gender distribution** is nearly even, indicating no gender-driven service preference or strategy is required.
- A **majority of customers have no dependents** and are **not senior citizens**, suggesting that marketing campaigns may benefit from targeting younger, single-person households.
- Most customers **do not have a partner**, reinforcing the individual-centric nature of our user base.

Service Subscription Insights:

- **Phone service is nearly universal**, but only a portion of customers subscribe to **add-on services** like device protection, online backup, or streaming.
- **Internet service is widely adopted**, with **fiber optic** being the most popular, likely due to performance advantages.
- A **significant segment (~22%) has no internet service**, which limits their exposure to value-added digital services.

Billing and Contract Patterns:

- **Over 55% of customers are on month-to-month contracts**, a clear indicator of low commitment and a possible contributor to high churn rates.
- **Electronic check is the most common payment method**, which, based on industry benchmarks, is often associated with higher churn.
- **60% of users prefer paperless billing**, indicating a solid base for digital communications and upselling opportunities.