ANALYSIS OF CUSTOMER LOYALTY DRIVERS IN THE U.S. TELECOMMUNICATIONS SECTOR USING SPSS

1. Background and Problem Statement:

A leading U.S.-based telecommunications company observed fluctuations in customer retention rates despite consistent promotional efforts and service expansions. With increasing competition from newer providers offering bundled internet and mobile packages, the company needed a better understanding of what drives long-term customer loyalty. While customer feedback was periodically collected through surveys, no structured statistical analysis had been performed to link various service dimensions to customer loyalty. The company commissioned a statistical study using SPSS to uncover which service attributes such as network quality, customer support, pricing, and contract flexibility most strongly influenced customer retention and recommendation intent.

2. Objectives:

- To identify the primary service attributes that drive customer loyalty and retention.
- To statistically assess the relationship between perceived service quality and loyalty indicators such as Net Promoter Score (NPS) and contract renewal.
- To perform segmentation of customers based on loyalty-related metrics using cluster analysis.
- To create a predictive model of customer churn using logistic regression.
- To present insights in a report with clear narrative, visuals, and data-driven recommendations.

3. Methodology:

3.1 Survey Design and Data Collection:

- **Survey Instrument:** Designed using Likert-scale and categorical items measuring satisfaction across pricing, support, network reliability, and perceived fairness of contract terms.
- **Loyalty Measures:** Included questions on Net Promoter Score, likelihood of renewing contract, and past switching behavior.

- **Sample Size:** 1,200 responses collected online across all 50 U.S. states from current telecom customers.
- **Demographic Segmentation:** Included age, income, contract type, and urban vs. rural residency.

3.2 Data Preparation in SPSS:

- Missing data handled via listwise deletion for multivariate tests.
- Recoding of ordinal variables into dummy variables for regression.
- Normality tests performed using Kolmogorov-Smirnov for continuous variables.
- Data split into 70% training and 30% testing sets for logistic regression.

3.3 Analysis Techniques in SPSS:

- **Descriptive Statistics:** Frequencies, means, and cross-tabulations across customer attributes and loyalty measures.
- **Chi-square Tests:** To assess associations between demographic variables and renewal likelihood.
- **Factor Analysis:** To reduce service attribute dimensions into coherent factors (e.g., “Support Experience”, “Network Quality”).
- **Binary Logistic Regression:** Modeled the probability of customer renewal (1 = Renew, 0 = Not Renew).
- **K-means Cluster Analysis:** Used to segment customers into loyalty profiles (e.g., "Loyal Advocates", "Price-Sensitive Switchers").

4. Key Results:

- **Regression Findings:**
    - Significant predictors of renewal intent included:
        - Customer Support Quality ($B = 0.76$, $p < .001$)
        - Network Reliability Score ($B = 0.59$, $p < .01$)
        - Perceived Fairness of Contract ($B = 0.48$, $p < .05$)
    - Price satisfaction was not statistically significant ($p = 0.12$), suggesting retention is driven more by service reliability.
- **Cluster Analysis Outcome:**

- Cluster 1: “Loyal Advocates” – high satisfaction, high NPS, strong retention.
- Cluster 2: “At-Risk Users” – mid-level satisfaction, low renewal intent.
- Cluster 3: “Price-Sensitive Switchers” – low satisfaction, high churn history.

- **Descriptive Insights:**
  - Urban users rated network quality higher than rural users.
  - Older customers (above 50) had a significantly higher renewal rate ($\chi^2(1) = 14.6$, $p < .001$).

5. Interpretation and Insights:

- Service quality—not price—is the dominant factor influencing telecom customer loyalty in the U.S.
- Fair contract terms and responsive customer support play a stronger role in retention than promotional pricing strategies.
- Cluster analysis revealed clear behavior segments that can guide marketing campaigns.
- Logistic regression validated the predictive role of network and service support variables in forecasting churn.

6. Recommendations:

- Invest in training and expanding the customer support team with quicker query resolution standards.
- Rework contract communication strategies to improve transparency and perceived fairness.
- Launch targeted retention campaigns for “At-Risk” and “Price-Sensitive” clusters using improved support guarantees instead of price-based discounts.
- Use cluster labels to customize CRM messaging and upsell programs.

7. Deliverables:

- SPSS .sav file with all cleaned and recoded data.
- Final SPSS output (.spv) file including regression, factor, and cluster results.
- A 15-page report in APA format with all visuals, tables, interpretations, and executive summary.

- A presentation slide deck summarizing key findings and strategic recommendations.

8. Stakeholder Relevance:

Academic:

Useful for case studies in customer retention, marketing analytics, and telecom service modeling using SPSS.

Corporate:

Relevant to CRM and strategy teams in the telecom industry aiming to enhance loyalty through data-driven customer insights and segmentation.