# ANALYZING ONLINE PURCHASE BEHAVIOR IN THE U.S. USING SPSS: INSIGHTS FROM A NATIONAL RETAIL SURVEY

## 1. Background and Problem Statement

A leading U.S.-based online retailer wanted to understand consumer behavior trends post-pandemic. With rapid shifts in preferences toward digital shopping, the company faced challenges in identifying key drivers of purchase intent, repeat purchases, and satisfaction levels across customer segments. The objective was to conduct a statistical analysis using SPSS on survey data collected from a nationwide sample to extract actionable insights and improve personalization, delivery experience, and post-sale support.

## 2. Objectives

- Identify key variables influencing online purchase behavior.
- Segment customers by behavioral traits and satisfaction levels.
- Examine the relationship between age, income, frequency of shopping, and satisfaction.
- Determine predictors of repeat purchase behavior.
- Generate a structured report to support strategic marketing initiatives.

## 3. Methodology

**3.1 Survey and Data Collection**

- **Instrument**: Structured questionnaire (Likert scale, binary, and multiple-choice questions).
- **Sample**: 1,000 respondents from the U.S., aged 18–65, who made at least one online purchase in the last 6 months.
- **Tool**: Google Forms and Qualtrics
- **Variables Included**:
    - Demographics: Age, gender, income, education
    - Behavior: Number of purchases per month, preferred categories, time of shopping
    - Satisfaction: Delivery speed, website experience, product quality

    - Future Intention: Likelihood of repurchase, brand recommendation

**3.2 SPSS Procedures Used**

- Data Cleaning: Labeling, missing value handling, reverse coding
- Descriptive Analysis: Frequencies, means, and standard deviations
- Bivariate Analysis: Pearson's correlation and Chi-square tests
- Multivariate Analysis:
    - Binary Logistic Regression (Repurchase intention as dependent variable)
    - One-Way ANOVA (Income group vs. satisfaction)
    - Cluster Analysis (customer segmentation based on behavior and satisfaction)

## 4. Key Findings

- **Customer Segments Identified**:
    - *Deal Seekers*: Young, low-income, high purchase frequency but low loyalty.
    - *Quality Loyalists*: Mid-income, value product quality and delivery experience, high repurchase intent.
    - *Convenience Shoppers*: Prefer one-click checkouts, value delivery timing over price.
- **Significant Predictors of Repurchase (Logistic Regression):**
    - Positive Website Experience ($p < 0.01$, OR = 2.1)
    - High Product Satisfaction ($p < 0.05$, OR = 1.7)
    - Timely Delivery ($p < 0.05$, OR = 1.5)
    - Income was not a significant predictor.
- **Income and Satisfaction (ANOVA):**
    - Higher income groups (> \$100K/year) had significantly higher satisfaction with customer service than lower-income groups ($p < 0.05$).
- **Correlation Matrix Highlights:**
    - Strong positive correlation ($r = 0.61$) between delivery speed and overall satisfaction.

  - Negative correlation (r = -0.28) between frequency of complaints and repeat purchase intent.

## 5. Interpretation and Insights

- User interface and website ease of use emerged as a stronger predictor than price, indicating that digital user experience is now a key differentiator.
- Delivery performance continues to have a significant emotional impact on satisfaction.
- Brands need to customize communications based on customer segments rather than adopting a one-size-fits-all approach.

## 6. Deliverables

- SPSS output file (.sav and .spv)
- Full report in APA format with tables and charts
- Executive summary highlighting customer personas and predictive variables
- Recommendations PowerPoint for stakeholder presentation

## 7. Stakeholder Relevance

**Academic:**

- Can be used as a reference project in courses covering marketing analytics, business research methods, or applied statistics.
- Demonstrates integration of segmentation and predictive modeling using real-world survey data.

**Corporate:**

- Enables e-commerce teams and digital marketing strategists to craft data-informed campaigns.
- Provides CX (Customer Experience) managers with a blueprint to enhance satisfaction touchpoints and reduce churn.