Segmenting Consumers of a Soap *(Schmueli et al.,2020)*

Business Situation:

CRISA is an Asian market research agency that specializes in tracking consumer purchase behavior in consumer goods (durable and nondurable). In one major research project, CRISA tracks numerous consumer product categories (e.g., "detergents"), and within each category, perhaps dozens of brands. To track purchase behavior, CRISA constituted household panels in over 100 cities and towns in India, covering most of the Indian urban market. The households were carefully selected using a stratified sampling to ensure a representative sample; a subset of 600 records is analyzed here; The strata were defined based on socioeconomic status and the market (a collection of cities).

CRISA has both transaction data (each row is a transaction) and household data (each row is a household), and for the household data it maintains the following information:

- Demographics of the household (updated annually)
- Possession of durable goods (car, washing machine, etc., updated annually; an "affluence index" is computed from this information)
- Purchase data of product categories and brand (updated monthly)

CRISA has two categories of clients: 1) advertising agencies that subscribe to the database services obtain updated data every month, and use the data to advise their clients on advertising and promotion strategies; 2) consumer goods manufacturers, which monitor their market share using the CRISA dataset.

Key Problems:

CRISA has traditionally segmented markets based on purchaser demographics. They now would like to segment the market based on two key sets of variables more directly related to the purchase process and to brand loyalty:

1. Purchase behavior (volume, frequency, susceptibility to discounts, and brand loyalty)
2. basis of purchase (price, selling proposition)

Doing so would allow CRISA to gain information about what demographic attributes are associated with different purchase behaviors and degrees of brand loyalty; and thus, deploy promotion budgets more effectively. More effective market segmentation would enable CRISA's clients to design more cost-effective promotion targeted at appropriate segments. Thus, multiple promotions could be launched.

TASK: CAN YOU HELP IDENTIFY THE TYPES OF HOUSEHOLDS?