**Organic Products Case Study**

**The Business Scenario**:

A supermarket is offering a new line of organic products. The supermarket’s management wants to determine which customers are most likely to purchase these products and develop a profile of the typical customer that purchases organic products.

As a side issue, they would also like to understand whether customers that purchase organic products spend more (or less) on average than other customers. If they find that customers who purchase organic products are also highly profitable customers, that makes the additional cost of stocking organic products more palatable for the management.

**The Data:**

The supermarket has a customer loyalty program. As an initial buyer incentive plan, the supermarket provided coupons for the organic products to all of the loyalty program participants and collected data that includes whether these customers purchased any of the organic products (organics.csv).

The ORGANICS data set contains 13 variables and over 22,000 observations. The variables in the data set are shown below with the appropriate roles and levels:

|  |  |  |
| --- | --- | --- |
| **Name** | **Measurement Level** | **Description** |
| ID | Nominal | Customer loyalty identification number |
| DemAffl | Interval | Affluence grade on a scale from 1 to 30 (financially well off) |
| DemAge | Interval | Age, in years |
| DemCluster | Nominal | Type of residential neighborhood |
| DemClusterGroup | Nominal | Neighborhood group |
| DemGender | Nominal | M = male, F = female, U = unknown |
| DemRegion | Nominal | Geographic region |
| DemTVReg | Nominal | Television region |
| PromClass | Nominal | Loyalty status: tin, silver, gold, or platinum |
| PromSpend | Interval | Total amount spent in the store this year |
| PromTime | Interval | Time as loyalty card member |
| TargetBuy | Binary | Organics purchased? 1 = Yes, 0 = No \*\* This is the Target variable for this exercise \*\* |
| TargetAmt | Interval\*\* | Number of organic products purchased\*\*  Note that you could use this as an input for exploratory analysis – You should not treat it as a Target variable for this exercise |