

# MKTG 464: Individual Assignment 2

## Positioning the Infiniti G20

By Gary L. Lilien & Arvind Rangaswamy



## **Introducing the G20**

In April 1990, Nissan's Infiniti division planned to introduce the G20 in the United States, adding a third model to the existing Infiniti line. The G20 was already available in Europe and Japan under the name Primera. The car, equipped with a four-cylinder engine developing 140 horsepower, would be Infiniti's entry-level luxury car. Initial market response to the G20 in the United States was disappointing, and management wondered how it might retarget or reposition the car to improve its market performance.

## **Background**

In 1989, three years after Honda first introduced its Acura line, Toyota and Nissan attacked the U.S. luxury car market, a segment previously dominated by American and German manufacturers.

In November 1989, Nissan launched its new luxury Infiniti division with the \$40,000 Q45 as its lead car and the \$20,000 M30. However, Nissan was somewhat late: in August 1989, three months before Nissan shipped its first Infiniti, Toyota had introduced Lexus, its luxury brand, with a two-car line comprising the \$40,000 LS400 and the entry-level LS250.

As the figures for January to September 1990 showed, Lexus outsold Infiniti by 50,000 to 15,000. The reasons for Infiniti's slow start were threefold:

- First, the Infiniti Q45 came to the market after the Lexus LS400 had established a good market position.
- Second, Lexus had two very good cars, whereas Infiniti's M30 coupe received poor evaluations from the automobile press and from customers.

- Finally, the eccentric Infiniti advertising campaign that showed scenes of nature, but not the car itself, shared some of the blame. (“Infiniti may not be doing so well, but, hey, at least sales of rocks and trees are skyrocketing,” commented comedian Jay Leno.)

## **Research Data**

Exhibits 1–4 summarize some of the data that Infiniti had in early 1990. Data in Exhibit 1 are the average ratings based on a survey of customers from its target segments, described as people between 25 and 35 with annual household incomes between \$50,000 and \$100,000 (when the survey was administered, the Lexus LS250 was not yet well known to the respondents to be included in the study). Data in Exhibit 2 are the average ratings for cars based on a separate survey of customers from the three sub-segments (denoted S1, S2 and S3). Data from Exhibits 1 and 2 are available in the file **‘Infiniti\_G20.csv’** in Canvas. Exhibit 3 summarizes demographic and psychographic information about the three sub-segments and was compiled from databases supplied by Claritas, Inc. Exhibit 4 is derived from sales brochures describing the characteristics of each car.

## QUESTIONS

- Data for this assignment is in the file, 'Infiniti\_G20.csv' in Canvas
  - If after giving some thought, you have problems doing this assignment, do not hesitate to contact me ( [sumond@uw.edu](mailto:sumond@uw.edu) ; PCAR 462).
1. (2 Points) How many Factors would you select to summarize the survey data? Are you able to interpret the factors based on the Unrotated Factor Loadings? If not then mention what problems you are facing in interpreting the Unrotated factors.
  2. (2 Points) Use Varimax Rotation to find the Rotated Factors. Describe the Factors as clearly as possible and give appropriate names for these Factors.
  3. (2 Points) Use the factor scores to generate perceptual maps. Based on these maps, how do people in this market perceive the Infiniti G20 in comparison with the other cars? For each of the factors, who is/are perceived to be the closest competitor(s) of G20? Who is/are the perceived leader(s) on each of the factors?
  4. (1 Point) Infiniti promoted the G20 as a Japanese car (basic version \$17,500) with a German feel. That is, as a car that was like the BMW 318i (\$20,000), but lower priced. Do the perceptions of the respondents match with this claim?
  5. (2 Points) Find the correlations between each consumer sub-segment's overall ratings (Columns S1, S2 and S3) with the factor scores (**Hint:** You should find one correlation coefficient for each factor-segment pair. This will tell you how the segment's overall rating is correlated with that factor). How would you describe these segments based on these correlations and the characteristics of each segment (Exhibit 3)?

6. (3 Points) To which sub-segment(s) would you market the Infiniti G20 (You should clearly discuss the pros and cons for each sub-segment)? How would you position/reposition the Infiniti G20 to best suit the chosen sub-segment(s)? Based on the information provided in the Exhibits, briefly describe the marketing program, media strategy, etc. that you might use to target the chosen sub-segment(s).

| Brands / Attributes | Attractive | Quiet | Unreliable | Sporty | Uncomfortable | Roomy | Prestige | Economical | Poor Value |
|---------------------|------------|-------|------------|--------|---------------|-------|----------|------------|------------|
| G20                 | 5.8        | 6.3   | 3.0        | 4.1    | 3.2           | 4.2   | 6.4      | 3.6        | 3.4        |
| Ford Tbird          | 4.0        | 3.6   | 4.2        | 4.9    | 4.0           | 3.9   | 3.5      | 3.7        | 4.3        |
| Audi 90             | 4.6        | 5.2   | 3.7        | 3.8    | 2.4           | 5.3   | 5.6      | 3.6        | 4.3        |
| Toyota Supra        | 5.6        | 4.2   | 2.0        | 6.2    | 3.7           | 3.5   | 5.3      | 3.2        | 3.5        |
| Eagle Talon         | 4.0        | 3.5   | 4.3        | 4.9    | 4.0           | 3.6   | 2.8      | 4.9        | 3.6        |
| Honda Prelude       | 5.2        | 5.4   | 3.2        | 5.1    | 3.3           | 3.9   | 4.7      | 5.0        | 2.6        |
| Saab 900            | 5.3        | 4.8   | 3.4        | 4.3    | 2.5           | 5.8   | 5.4      | 4.3        | 2.9        |
| Pontiac Firebird    | 3.9        | 2.8   | 3.9        | 5.7    | 4.3           | 3.3   | 3.8      | 3.1        | 4.3        |
| BMW 318i            | 5.7        | 5.0   | 2.3        | 4.1    | 3.5           | 4.3   | 6.4      | 4.3        | 3.3        |
| Mercury Capri       | 3.9        | 3.3   | 4.0        | 5.2    | 4.4           | 3.6   | 3.3      | 4.6        | 3.8        |

**Exhibit 1: Survey results with average ratings for car attributes**

| Brands / Segments | Segment I (S1) | Segment II (S2) | Segment III (S3) |
|-------------------|----------------|-----------------|------------------|
| G20               | 5.5            | 5.3             | 6.3              |
| Ford Tbird        | 3.1            | 5.0             | 3.6              |
| Audi 90           | 5.3            | 6.7             | 4.0              |
| Toyota Supra      | 5.6            | 3.2             | 6.1              |
| Eagle Talon       | 3.1            | 3.1             | 5.9              |
| Honda Prelude     | 6.1            | 5.4             | 6.6              |
| Saab 900          | 6.9            | 5.8             | 6.4              |
| Pontiac Firebird  | 2.7            | 2.5             | 3.7              |
| BMW 318i          | 6.3            | 5.4             | 7.1              |
| Mercury Capri     | 2.7            | 5.8             | 4.4              |

**Exhibit 2: Survey results with average ratings for cars in three customer segments**

| <b>Segment Characteristics</b>             | <b>Segment 1 (Western, Yuppie, Singles)</b> | <b>Segment 2 (Upwardly Mobile Families)</b> | <b>Segment 3 (American Dreamers)</b> |
|--|---|---|--------------------------------------|
| <b>Segment Size</b>                        | (25%)                                       | (45%)                                       | (30%)                                |
| <b>Education</b>                           | College Grads                               | College Grads or Some College               | College Grads Some College           |
| <b>Predominant Employment</b>              | Professionals                               | White-Collar                                | White-Collar                         |
| <b>Age Group</b>                           | 25–35                                       | 25–35                                       | 25–35                                |
| <b>Predominant Ethnic Background</b>       | White                                       | White                                       | Mix (Asian, White)                   |
| <b>Average Household Income</b>            | \$81,000                                    | \$68,000                                    | \$59,000                             |
| <b>Persons per Household</b>               | 1.42  | 3.8   | 2.4                                  |
| <b>Percent Married</b>                     | 32%   | 75%   | 55%                                  |
| <b>Watch Late Night TV</b>                 | 27%   | 9%  | 17%                                  |
| <b>Watch Daytime TV</b>                    | 3%  | 45%   | 5%                                   |
| <b>Read Computer Magazines</b>             | 39%   | 6%  | 10%                                  |
| <b>Read Business Magazines</b>             | 58%   | 23%   | 27%                                  |
| <b>Read Entertainment Magazines</b>        | 3%  | 14%   | 30%                                  |
| <b>Read Infant and Parenting Magazines</b> | 1%  | 17%   | 2%                                   |
| <b>Rent Movies</b>                         | 43%   | 85%   | 38%                                  |
| <b>Possess an American Express Card</b>    | 48%   | 45%   | 75%                                  |
| <b>Own Investment Funds</b>                | 24%   | 18%   | 47%                                  |
| <b>Go Fishing</b>                          | 2%  | 30%   | 3%                                   |
| <b>Sail, Scuba Dive or Ski</b>             | 49%   | 2%  | 20%                                  |

**Exhibit 3: Data about the segments**



|                             | Base Price<br>(\$) | Length<br>(Inches) | Width<br>(Inches) | Height<br>(Inches) | Curb Weight<br>(lbs.) | Fuel Economy (mpg) |         | Horspower,<br>SAE.net (bhp) | Warranty,<br>Years/Miles |
|-----------------------------|--------------------|--------------------|-------------------|--------------------|-----------------------|--------------------|---------|-----------------------------|--------------------------|
|                             |                    |                    |                   |                    |                       | City               | Highway |                             |                          |
| <b>G20</b>                  | 17,500             | 175                | 66.7              | 54.9               | 2,535                 | 24                 | 32      | 140@ 6,400<br>rpm           | 4/ 60,000                |
| <b>Ford T-bird</b>          | 15,783             | 198.7              | 72.7              | 52.7               | 3,600                 | 17                 | 24      | 210@ 4,000<br>rpm           | 1/ 12,000                |
| <b>Audi 90</b>              | 20,200             | 176                | 67.6              | 54.3               | 3,170                 | 18                 | 24      | 164@ 6,000<br>rpm           | 3/ 50,000                |
| <b>Toyota<br/>Supra</b>     | 23,280             | 181.9              | 68.7              | 51.2               | 3,535                 | 17                 | 22      | 232@ 5,600<br>rpm           | 3/ 46,000                |
| <b>Eagle Talon</b>          | 16,437             | 170.5              | 66.7              | 51.4               | 3,100                 | 20                 | 25      | 195@ 6,000<br>rpm           | 1/ 12,000                |
| <b>Honda<br/>Prelude</b>    | 14,945             | 175.6              | 67.3              | 29.2               | 2,740                 | 23                 | 27      | 135@ 6,200<br>rpm           | 3/ 36,000                |
| <b>Saab 900</b>             | 18,295             | 184.5              | 66.5              | 56.1               | 2,825                 | 20                 | 26      | 140@ 6,000<br>rpm           | 3/ 36,000                |
| <b>Pontiac<br/>Firebird</b> | 12,690             | 192                | 72.4              | 49.8               | 3,485                 | 16                 | 24      | 240@ 4,400<br>rpm           | 3/ 50,000                |
| <b>BMW 318i</b>             | 19,900             | 170.3              | 64.8              | 53.5               | 2,600                 | 22                 | 27      | 134@ 6,000<br>rpm           | 3/ 36,000                |
| <b>Mercury<br/>Capri</b>    | 13,500             | 166.1              | 64.6              | 50.2               | 2,487                 | 23                 | 28      | 132@ 6,000<br>rpm           | 1/ 12,000                |

**Exhibit 4: Some physical characteristics of the cars**