

CHAPTER 5

RESEARCH DESIGN

5.1 INTRODUCTION

The objective of the proposed research project was to determine underlying consumer perceptions of product attributes featured in advertising. To reach this objective, a research project comprising two phases was used.

Content analysis was applied during Phase One to establish a list of product attributes featured in magazine advertisements pertaining to a certain product category. It was decided to focus on cosmetic products and to study attributes of lipstick in particular. Lipstick was selected because of its simplicity and because the product is explained by many different attributes, often explicitly mentioned in advertisements. During Phase Two, a quasi-experimental design was used during which a sample of lipstick users were required to evaluate the importance of the overall product attributes for the product category as well as for three brands of the product. Factor analysis was used to determine whether underlying factors exist among the input variables obtained through content analysis.

5.2 CONTENT ANALYSIS

According to Wells, Burnett & Moriarty (1992) content analysis is a type of research that analyses various dimensions of a message. Content analysis follows a systematic process starting with the selection of a unitisation scheme (Cooper & Emroy, 1995). Syntactical units, illustrated by words, will be recorded in executing the study due to their reliability. The reliability of these units is based on the fact that they are the smallest unit of measure of a written document and require no judgment on meaning (Krippendorf, 1980).

The objective of the execution of content analysis as a research method is to create an exhaustive list of product attributes that can be used as input variables to a multiple

item Likert scale instrument, the results of which will then be subjected to factor analysis to determine underlying consumer perceptions of product attributes.

5.2.1 Method

Three women's magazines - Cosmopolitan, Fair Lady and Rooi Rose - were selected and all advertisements pertaining to lipstick for the period June 1994 to May 1995 were included in the study. It is important to note that although editorials and promotions regarding lipstick were excluded from the analysis, they were almost always accompanied by an advertisement.

Twenty-two lipstick attributes were extracted from the advertisements, namely

- Moisturises
- Light texture
- Creamy texture
- Long-lasting wear
- Hypoallergenic
- Not tested on animals
- Protects lips
- Nourishes
- Phytospheres
- Smooth
- Innovative formula
- Prevents dryness
- Polished colour
- Perfume-free
- Brand name
- Price
- Colour
- Vitamin E-enriched
- Conditioning colour

- Doesn't run or bleed
- Matt finish
- Stay on lips (won't kiss or rub off)

5.3 QUASI-EXPERIMENT

Once the exhaustive list of featured attributes had been compiled, a questionnaire was designed to determine the importance rating of each lipstick attribute when selecting a lipstick. Besides determining the importance ratings, performance ratings on each of the attributes for three specific brands of lipstick also had to be determined to identify change in consumer perceptions of the listed twenty-two attributes as the explicitly mentioned attributes changed. Three advertisements of lipstick were therefore selected, each containing a different number of attributes with one advertisement featuring a model, displaying the product. The logic of selecting advertisements containing a different number of attributes is to determine whether performance ratings vary as the number of explicitly mentioned attributes vary.

The three advertisements selected were Clarins, Ellen Betrix and Maybelline (Appendix B). The Clarins advertisement featured twelve attributes while Ellen Betrix and Maybelline displayed four attributes each. Maybelline also portrayed a female model displaying the product.

The lipstick attributes featured in the Clarins advertisement are

- Protects lips
- Nourishes
- Phytospheres
- Moisturises
- Smooth
- Light texture
- Creamy texture
- Long-lasting wear

- Hypoallergenic
- Not tested on animals
- Colour
- Brand name

Ellen Betrix depicted the following four attributes:

- Hypoallergenic
- Perfume-free
- Colour
- Brand name

Besides portraying a model, Maybelline also explicitly mentioned the following attributes:

- Polished colour
- Innovative formula
- Prevents dryness
- Brand name

The importance and performance ratings of the lipstick attributes were measured by means of continuous rating scales, where the respondent had to assign a rating by placing a marker at the appropriate position on a dotted line where there was no explicit standard for comparison (Dillon, Madden & Firtle, 1990). When the scales were compiled no explicit value was given to them. They only consisted of dots. Once the questionnaire was completed, numerical values were ascribed to each dot. The extremes for the importance ratings for the lipstick attributes were extremely important (with a numerical value of one) and totally unimportant (numerical value of five).

The questionnaire (Appendix A) was presented to two groups of female respondents at the University of Pretoria. Respondents first had to rate the importance of each of the attributes when selecting lipstick. They were then presented with the first advertisement, Clarins, where they had to indicate the performance of the brand on each of the twenty-two attributes on a scale ranging from excellent to poor. This process was followed for Ellen Betrix and Maybelline.

As indicated in Table 5.1, a total of 187 respondents completed the questionnaire. Of the 187 respondents 177 (94,7%) indicated that they used lipstick with only 10 respondents (5,3%) claiming not to use lipstick at all.

TABLE 5.1: USAGE PATTERNS

| Use lipstick | Frequency | Percentage |
|--------------|------------|-------------|
| No | 10 | 5,3% |
| Yes | 177 | 94,7% |
| Total | 187 | 100% |

Ten respondents (5,3%) claimed that they never used lipstick and a further 45 (24,1%) indicated that they seldom (0-2 occasions per week) used lipstick. A further 42 respondents (22,5%) indicated they used lipstick regularly (2-4 occasions per week), 41 (21,9%) fairly regularly (4-6 occasions per week) and 49 (26,2%) frequently (more than 6 occasions per week). The frequency, percentage and cumulative percentage of lipstick usage among the respondents are presented in Table 5.2.

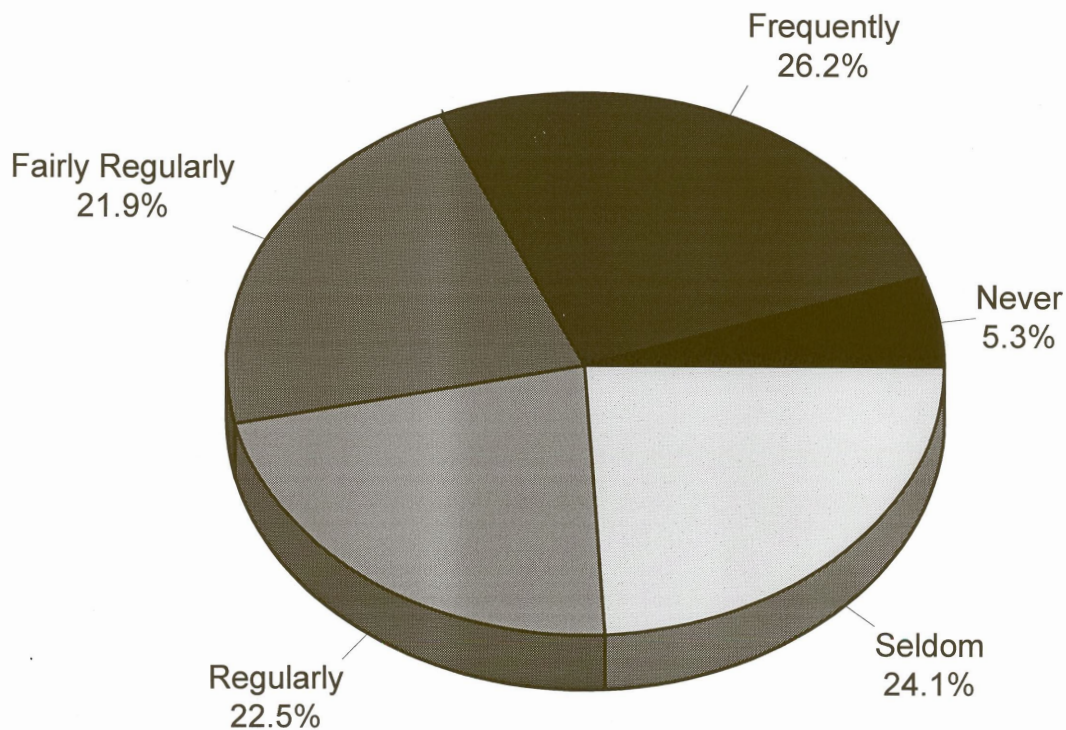
TABLE 5.2: FREQUENCY OF USE

| Frequency | Frequency of response | Percentage | Cumulative percentage |
|------------------|-----------------------|-------------|-----------------------|
| Never | 10 | 5,3% | 5,3% |
| Seldom | 45 | 24,1% | 29,4% |
| Regularly | 42 | 22,5% | 51,9% |
| Fairly regularly | 41 | 21,9% | 73,8% |
| Frequently | 49 | 26,2% | 100% |
| Total | 187 | 100% | |

The results obtained through the questionnaire could be used as input to factor analysis since an acceptable percentage of respondents (70,6%) could be classified as "experts" when selecting lipstick (regular, fairly regular and frequent users of lipstick).

Figure 5.1 provides a graphical presentation in the form of a pie chart of the frequency of lipstick use among the respondents.

FIGURE 5.1: FREQUENCY OF LIPSTICK USE



5.3.1 Statistical analysis

The results obtained from analysing the questionnaires completed by the respondents were then used as input to the factor analysis routine. The purpose of factor analysis (Boyd, Westfall & Stasch, 1989) is to determine whether the responses to several of the statements are highly correlated. If statements are highly correlated, it is believed that the statements measure some factor common to all of them, in other words, factor analysis attempts to reduce a large number of variables to some smaller number by showing which belong together and which seem to measure the same thing (Cooper *et al.*, 1995).

In conducting this factor analysis the Varimax-technique of orthogonal rotation (Bagozzi, 1994) was used. Only factors with eigenvalues greater than one (Child, 1979) were extracted. Although factor loadings greater than 0,30 are often considered significant, it was decided to concentrate on values greater than 0,50 only, due to the small scale of the study.

The results of the factor analysis are presented in Chapter 6, Results and interpretation.