CHAPTER 4

RESEARCH METHODOLOGY

4.1 Research plan

Research design is a central component of a study (Chisnall 2001). Therefore, this chapter illustrates the type of research that was being undertaken, the methods used to collect secondary and primary data, it will provide reasons for adopting the chosen approach. First, the research aim is recalled and the objectives are shown in order to set up the research structure. Secondly, the structure will demonstrate the different methods used by the researcher to gather the information while explaining the reasons why they have been chosen. Johns and Lee-Ross (1998) suggest it is often advisable to use more than one research technique in order to compare findings and obtain a definitive picture of the subject.

4.2 Rationale of the Study

The Indian marketing environment has changed dramatically in the last 10 years or so and so have marketing communication practices. New situations have given rise to new challenges, and nowhere are these more evident than in advertising. An increasingly demanding marketer, the growing advertising clutter, and new ideas such as return on marketing investment (ROMI) are pushing advertising professionals to show tangible, quantifiable results. Among other things, Indian advertising has tended to fall back on celebrities to rise above the mess and show results. In a related study, Shimp (2000) found out that 25 per cent of all television and print advertisements in USA featured celebrities over a period of one year. In the Indian context the use of celebrities in advertisements is not new. Celebrities have mainly been drawn from the world of entertainment and sports. In the late 1970s actor Shammi Kapoor advertised for the Paan Parag brand. Similarly, in the early 1980s popular cricketers such as Kapil Dev and Sunil Gavaskar endorsed Pamolive and Cherry Canvas Shoe Polish (among others) respectively. Since then the most sought after celebrities have been the actors and cricketers.
According to news reports, actor Shah Rukh Khan has recently signed up a Rs 10 million contract with the ITC’s Sunfeast brand of food products. The contract made him the highest paid brand ambassador in India. Most popular celebrities like Amitabh Bachchan, Sachin Tendulkar and Aishwarya Rai promote a wide variety of disparate brands. How do consumers perceive celebrities and the brands they endorse? Is there a fit between the two? Do consumers have the same image of the celebrity as of the brand he/she endorses? These questions prompted the present study. I believe the outcome of this study, admittedly preliminary, will provide marketers and advertising practitioners some evidence regarding investments they make while choosing celebrities.

Hence, the rationale of this study is to find out the influence of celebrity endorsements on consumers’ processing of marketing communications.

**Academic Justification**

Over the past few decades, much research has already been done over the phenomena of celebrity endorsements (Bailey 2007). Researchers in academic journals have explored many new issues related to the celebrity endorsements for instance negative publicity of celebrity, effectiveness of endorsements etc. Moreover, there are many empirical studies already being conducted focussed on major markets like United States, United Kingdom, and China etc. but as far as author’s review and knowledge none of the research is done in context to the Indian consumer market. The main reason for choosing this topic is based on the fact that so far no study has been conducted in order to understand the impact of celebrity endorsements on consumer buying behaviour with reference to India.

Academically, this research project will be helpful in understanding the perception and attitude of Indian consumers towards celebrity endorsements which may reveal some interesting insights and directions for future research.

**Business Justification**

Celebrity endorsement has become a common practice in order to differentiate the product from other competing brands in a highly competitive environment (Erdogan 1999). The final aim of
every advertising strategy is to instigate the actual behaviour of the targeted audience, whether purchase intention or actual consumption (Sharma et al. 2008). If an advertising strategy fails to achieve the same, the million dollars spent are not worth it.

Indian consumer market is booming at a great pace. According to a report by McKinsey Global Institute (MGI), India's consumer market will be the fifth largest (from twelfth) in the world by 2025 which is currently valued at US$ 511 billion. Additionally, consumers in India are exposed to several new products every other day followed by marketers’ differentiation, positioning techniques. Therefore it will be interesting to investigate the impact of celebrity endorsements on consumers buying behavior in India. From a business perspective this research project would be useful in understanding the attitude and perceptions of Indian consumers towards celebrity endorsements.

**Personal Justification**

India is a country where celebrities are worshipped and possess demo-god status. People have always idolized celluloid stars (Katyal, 2007). Marketers take advantage of this opportunity to influence the customers emotionally and make them buy products. The author, in his school days was under the same influence of celebrity magnetism. Later after reading and studying marketing, the author came to know about the theoretical and practical underpinnings of celebrity endorsements which increased author's eagerness to towards the topic. Additionally, author believes that conducting this research project will enhance the valuable personal knowledge about the subject and experience for future career applications.

**4.3 Objectives**

1. To measure consumer’s perception of the association between product/ brand with the celebrity endorser.

2. To examine the comparative influence of celebrity endorsements with non- celebrity endorsements on source credibility, attitude towards the brand and purchase intentions.

3. To ascertain the source credibility of the same celebrity in a multi- brand endorsement situation.
4. To identify the demographic correlates of consumers’ attitudes towards brands and evaluation of endorsements featuring celebrities.

4.4 Hypotheses

H₀₁: There is no association between consumer’s perception of the product/brand and the celebrity endorser.

H₀₂: There is no difference between the influence of celebrity and non-celebrity on:
   a) Source credibility
   b) Attitudes towards the brand
   c) Purchase intentions

H₀₃: There is no difference in the consumer’s perceived source credibility of a celebrity when endorsing different brands.

H₀₄: There is no correlation between demographic variables and evaluation of endorsements featuring celebrities.

H₀₅: There is no correlation between demographic variables and consumer’s attitudes towards the brand.

4.5 Research Techniques

4.5 (i) Survey Research Method

The research will be conducted using a structured questionnaire that has been developed keeping in consideration the objectives and hypotheses framed in this research. 5-point Likert scale has been used for this purpose.

4.5 (ii) Variables

The independent variables in this study are the physical attractiveness of the celebrity, the source credibility of the celebrity and the celebrity/brand congruency of the product. The dependent
variables of this study are the attitudes toward the advertisement and the product and the consumers’ intent to purchase the product.

4.5 (iii) Instrument Development

4.5 (iii) (a) Congruence Measure

To measure the congruence between the endorser and the endorsed brand, a six item 5-point Likert scale from the sponsorship literature was used. The original scale was developed by Fleck and Quester (2007) to measure the fit between sponsor and event on two dimensions: relevancy and expectancy. For the creation of this scale they incorporated items from two existing validated instruments (Speed & Thompson, 2002; Heckler & Childers, 1992). The scale was validated in two different samples. For the purpose of this study the scale items were reworded to form a measure of the fit between endorser and the endorsed brand. This question has been asked in past research (Kamins & Gupta, 1994; Kamins, 1990; Till & Busler, 1992).

4.5 (iii) (b) Source Credibility

The instrument that was used for this survey is a valid and reliable scale developed specifically for research on celebrity endorsements by Ohanian (1990). It has a reliability of .904 and .903 for attractiveness, .895 and .896 for trustworthiness, and .885 and .892 for expertise. It measures credibility of the celebrity (including trustworthiness, expertise, and physical attractiveness). The celebrity/brand congruency will be measured by asking how congruent (how well they fit together) is the image of the celebrity with that of the brand advertised, along with questions that ask how believable that celebrity is. This question has been asked in past research (Kamins & Gupta, 1994; Kamins, 1990; Till & Busler, 1992).

4.5 (iii) (c) Purchase Intentions

Another instrument that has been used is the purchase intention scale. The scale was developed by Kahle & Homer (1985) and has a reliability of .88. The scale is typically characterized by multiple Likert-like items used to measure the inclination of a consumer to buy a specified good
or use a service. To measure purchase intentions, three questions using five-point scales assessing the likelihood that the respondent would purchase the product, the likelihood that the respondent would try the product on if seen in a store, and the likelihood the respondent would actively seek out the product in a store will be used. The source of this scale is a study of the physical attractiveness of models in advertisements (Baker and Churchill 1977). These questions have been used throughout past research (Petroshius & Crocker, 1989; Mitchell & Olson, 1981; Kamins & Gupta, 1994; Ohanian, 1991; Kamins, 1990; Till & Busler, 1992; Kahle & Homer, 1985). Alphas of .73, .91, .81, .81, and .81 have been reported by Kilbourne (1986), Kilbourne, Painton and Ridley (1985), Neese and Taylor (1994), Perrien, Dussart, and Paul (1985), and Stafford (1998), respectively.

4.5 (iii) (d) Attitude Toward the Brand

To measure attitude toward the brand, scales from Osgood, Suci, & Tannenbaum’s (1957) were constructed and were selected based on existing research (Gardner, 1985; Kamins & Gupta, 1994; Mitchell & Olson, 1981; Till & Busler, 1998; Kahle & Homer, 1985; Petroshius & Crocker, 1989; Biehal, Stephens, Curlo, 1992). The scale contains six items and the Chronbach’s alpha is .87.

4.5 (iv) Data Collection

Data will be collected using both primary and secondary data collection methods.

4.5 (iv) (a) Primary Data Collection

Primary data collection will be done using questionnaire. The questionnaire will contain questions to understand the consumers’ perceptions about celebrity endorsements, source credibility and the evaluation of endorsements featuring celebrities.
4.5 (iv) (b) Secondary Data Collection

Secondary data collection is being done from sources like journals, books, magazines and the internet. The following electronic and print journals were considered for the purpose of the study:

Table 4.1

Electronic & Print Journals Referred To For The Purpose Of the Study

<table>
<thead>
<tr>
<th>S.NO</th>
<th>TITLE OF THE JOURNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>British Food Journal</td>
</tr>
<tr>
<td>2</td>
<td>Journal of Marketing</td>
</tr>
<tr>
<td>3</td>
<td>Journal of Business Research</td>
</tr>
<tr>
<td>4</td>
<td>Journal of Accounting-Business &amp; Management</td>
</tr>
<tr>
<td>5</td>
<td>Journal of Advertising</td>
</tr>
<tr>
<td>6</td>
<td>Journal of Advertising Research</td>
</tr>
<tr>
<td>7</td>
<td>Operations Research</td>
</tr>
<tr>
<td>8</td>
<td>Journal of Broadcasting &amp; Electronic Media</td>
</tr>
<tr>
<td>9</td>
<td>Journal of Consumer Psychology</td>
</tr>
<tr>
<td>10</td>
<td>Journal of Consumer Research</td>
</tr>
<tr>
<td>11</td>
<td>Journal of Marketing Research</td>
</tr>
<tr>
<td>12</td>
<td>Operations Research Quarterly</td>
</tr>
</tbody>
</table>
4.5 (v) Data Collection/Procedure

First a questionnaire was passed out containing questions that the respondents answered using a likert scale. The respondents were shown a set of advertisements contained in a booklet and then they were asked to answer the questions contained in the questionnaire. After all the advertisements were shown the respondents answered some demographic questions.

4.5 (v) (a) Advertisements used to test Ho1:

Three different advertisements showing three different celebrity endorsements were shown. The first advertisement shown was Aishwarya Rai endorsing Lo’Real Shampoo; next Amitabh Bachchan endorsing Himani Navrattan Oil; and finally Shahrukh Khan endorsing Pepsodent. All three advertisements were shown in that order to the respondents. The respondents were then asked to answer the corresponding questions for each advertisement. Consumers’ perception of
the association between product/brand with celebrity endorser was measured. The rationale behind selecting these celebrities is that all of them represent different age groups. Also the selection of celebrities was done keeping in mind proper representation of both the genders.

4.5 (v) (b) Advertisements used to test Ho2:

To test comparative influence of celebrity endorsements with non-celebrity endorsements on attitude towards the brand, source credibility and purchase intentions, the advertisements that were shown to the respondents are Dove Shampoo ad featuring a non-celebrity and the advertisement of Lo’Real Shampoo featuring a celebrity i.e. Aishwarya Rai. Similar products with almost similar price range were selected for the purpose of research.

4.5 (v) (c) Advertisements used to test Ho3:

To ascertain the source credibility of the same celebrity in a multi-brand endorsement situation, two different celebrities endorsing multiple brands were chosen. The first celebrity shown was Katrina Kaif endorsing multiple brands like Lux, Nakshatra, Pantene, Spice Mobiles, and Slice etc. The second celebrity shown was Amitabh Bachchan endorsing multiple brands like Navratna Oil, Cadbury Dairy Milk and Amul cheese etc. the celebrities were chosen because they represent different age groups and equal representation has been ensured for both the genders.

In order to prove or disprove Ho4 & Ho5 the data regarding age and gender mentioned by respondents in their personal particulars was used.

4.5 (vi) Sampling Design

4.5 (vi) (a) Sampling Unit

This research was conducted using a structured questionnaire that was designed to understand the consumers’ views on celebrity endorsements, measuring their attractiveness, expertise and trustworthiness. The sample size was 400. But the number of usable questionnaires was 232. So the entire statistical analysis was conducted on 232 samples.
4.6 Data Analysis

Data was analyzed by SPSS. Factor Analysis was used to get an idea of how the respondents scored each advertisement and used to measure the demographic questions.

4.6 (a) Test Statistics used

**One Sample t- Test:** t- test is used to test a hypothesis stating that the mean scores on some variable will be significantly different for two independent samples or groups. It is used when the number of observations (sample size) is small and the population standard deviation is unknown (Zikumnd pp. 506). The One-Sample T- Test procedure tests whether the mean of a single variable differs from a specified constant. Descriptive statistics for the test variables are displayed along with the $t$ test. A 95% confidence interval for the difference between the mean of the test variable and the hypothesized test value is part of the default output.

**Statistics:** For each test variable: mean, standard deviation, and standard error of the mean. The average difference between each data value and the hypothesized test value, a $t$ test that tests that this difference is 0, and a confidence interval for this difference (confidence level can be specified).

**Data:** To test the values of a quantitative variable against a hypothesized test value, choose a quantitative variable and enter a hypothesized test value.

**Assumptions:** This test assumes that the data are normally distributed; however, this test is fairly robust to departures from normality.

**Chi- Square Test:** The chi- square statistic is used to test the statistical significance of the observed association in a cross- tabulation. It assists in determining whether a systematic association exists between the two variables. The null hypothesis, $H_0$, is that there is no association between the variables. The test is conducted by computing the cell frequencies that would be expected if no association were present between the variables, given the existing row and column totals. These expected cell frequencies, denoted $f_e$, are then compared to the actual and observed frequencies, $f_o$, found in the cross- tabulation to calculate the chi- square statistic.
The greater the discrepancies between the expected and actual frequencies, the larger the value of the statistic (Malhotra, Dash, pp. 453).

**Statistics:** Mean, standard deviation, minimum, maximum, and quartiles. The number and the percentage of non-missing and missing cases; the number of cases observed and expected for each category; residuals; and the chi-square statistic.

**Data:** Use ordered or unordered numeric categorical variables (ordinal or nominal levels of measurement). To convert string variables to numeric variables, use the Automatic Recode procedure, which is available on the Transform menu.

**Assumptions:** Nonparametric tests do not require assumptions about the shape of the underlying distribution. The data are assumed to be a random sample. The expected frequencies for each category should be at least 1. No more than 20% of the categories should have expected frequencies of less than 5.

**Independent-sample t test (two-sample t test):** Compares the means of one variable for two groups of cases. Descriptive statistics for each group and Levene’s test for equality of variances are provided, as well as both equal- and unequal-variance t values and a 95% confidence interval for the difference in means.

**Statistics:** For each variable: sample size, mean, standard deviation, and standard error of the mean. For the difference in means: mean, standard error, and confidence interval (you can specify the confidence level).

**Tests:** Levene’s test for equality of variances and both pooled-variances and separate-variances t tests for equality of means.

**Data:** The values of the quantitative variable of interest are in a single column in the data file. The procedure uses a grouping variable with two values to separate the cases into two groups. The grouping variable can be numeric (values such as 1 and 2 or 6.25 and 12.5) or short string (such as yes and no).
**Assumptions:** For the equal-variance $t$ test, the observations should be independent, random samples from normal distributions with the same population variance. For the unequal-variance $t$ test, the observations should be independent, random samples from normal distributions. The two-sample $t$ test is fairly robust to departures from normality.

**4.7 Summary**

This section briefly described the research design & methodology of the study. The study can be described as a formal study as it is aimed at solving specific research objectives and aimed to test specific hypotheses. The purpose of this study was to explain the relationship between the independent and dependent variables. The method of data collection used was the survey method as a questionnaire was used to collect data from subjects who had been to the independent variables stimuli. The study is a statistical study as hypotheses were tested quantitatively. Data were gathered quantitatively and analyzed statistically. This study is also cross-sectional as research was carried out at one time to determine the measured effects of independent variables.