CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction
According to Saunders, Lewis and Thornhill (2009), method is “…the techniques and procedures used to obtain and analyze research data, including questionnaires, observations, interviews, and statistical and non-statistical techniques”. The method explains how research will be carried out and the implications of those choices. The research process is according to McGrath (1981, p.179) “a series of interlocking choices, in which we try simultaneously to maximize several conflicting desiderata”. McGrath (1981) continues to argue that there is no such thing as one true method that is the methodological answer. On the contrary, there is no guarantee of success. The different approaches of methodology will be discussed in the following sections.

3.2 Research Purpose
The purpose of this study is to investigate the influence of physical attractiveness, Trustworthiness, Expertise & likability of celebrity & non-celebrity endorser on consumers’ attitudes toward the advertisement and purchase intentions of the endorsed product dedicated to FMCG category.

Celebrity endorsements and its effect are deeply documented in academic literature, but what about the non-celebrity endorsement? Using celebrities during the launching of product or brand enjoyed a high success rate. Companies that has managed to use celebrity endorsement successfully in recent times is Nissan (Ranbir Kapoor) & Jimmy Shergill, Mahindra & Mahindra’s Varito brand car. Maruti Suzuki, on the other hand (Presently non-celebrity endorsement for car brand Maruti’s model Swift & Celerio), earlier used Amitabh Bachhan to power launch its brand Versa. The usage of a celebrity at that time was mainly to gain rapid recognition and create a positive image around the company that till now was involved in very low volume products. However, the sole use of a celebrity cannot be the solution for all branding issues, especially in the case of multiple brand endorsements by the same celebrity. It is critical then to make the brand-celebrity partnership effective. It is necessary to target celebrities who will appeal to your target audience. A company needs to research potential celebrity endorsers to ensure that they are not in conflict with an organization’s value system or likely to generate negative publicity. Sometimes it
depends on the product nature, where the celebrity’s negative image will be a powerful reason for endorsing a product. (Example: case of famous Indian cricketer Yuvraj Singh, endorsed “Revital” health supplement, but after faces cancer “Revital” replaced with Salman Khan, same time “Birla Sunlife” Insurance Company, picked Yuvraj Singh as a brand endorser.) Celebrities should add worth to the brand’s story and enhance it but not overpower it. Another issue is celebrity exposure and fatigue. The same personality (Example: Amitabh Bachchan) endorsing a range of suit material (Reid &Taylor), a bank (ICICI), a soft drink, SUV (Force), Biscuits (Parle), a polio-pulse program, a paint company and an Ayurvedic health option, Water pumps (Shakti), Pesticides (Dhanuka) etc. leads to sheer confusion in consumers’ minds. What makes this research interesting is that it enables us to understand the celebrity endorsement for FMCG products from an Indian consumer point of view as well as non-celebrity endorsement. Because of in FMCG (Fast Moving Consumer Goods), there is coexistence of both endorsements in the advertisements in any media. Not much work has been seen in the Indian light for comparative study of both on the various product categories. Indian consumer attitudes are changing at a rapid pace and they are becoming more aware of the products that they use. The research is carried out to obtain a view amongst Indian Consumers about celebrity and non-celebrity endorsement.

The research is undertaken on advertisement effectiveness of celebrity and non-celebrity endorsement. This research will be useful for both academic and professional platforms, as it looks into the perception of Indian consumers on celebrity and non-celebrity endorsement, providing theory for scholarly and directives for managers and professionals.
3.3 Objectives

The objectives of the study are as under.

1. To study customer’s perceptions with respect to celebrity versus non-celebrity endorsers in advertisements
2. To study influence of demographic factors on customers’ perception for celebrity & non celebrity endorsers in advertisements
3. To identify relationship between perceived trustworthiness, attractiveness, expertise, likability & credibility of celebrity & non celebrity endorsement among customers
4. To study the effectiveness of celebrity and non-celebrity endorsement on purchase intention
5. To identify product categories when non-celebrity endorsement will be more effective compared to celebrities

3.4 Choice of Method:

The quantitative approach and extensive data collection as the research technique is in line with the quantitative method described by Saunders et al. (2009). A high number of participants are needed for this sort of study; hence extensive data collection was used to measure the trends in the data. The main hypothesis of this thesis is: effectiveness of endorser (celebrity / non-celebrity) for selected product categories. This hypothesis was tested through a technique where participants were asked to answer the same set of questions in a predetermined order through questionnaire.

3.5 Hypothesis

On the basis of rigorous literature review and in line with objectives of the study, following hypotheses were developed.

H1: There is no significant relationship between celebrities’ characteristics and celebrity endorsement effectiveness.
H2: There is no significant difference between likening advertisement of product categories and means score of celebrity endorsement effectiveness.
H3: There is no significance difference between gender group and celebrity/non-celebrity’s characteristics.
H4: There is no significance difference between age groups and celebrity/non-celebrity’s characteristics.
H5: There is no significance difference between educational groups and celebrity/non-celebrity’s characteristics.
H6: There is no significance difference between occupational groups and celebrity/non-celebrity’s characteristics.
H7: There is no significance difference between income groups and celebrity/non-celebrity’s characteristics.
H8: There is no significant relationship between purchasing behaviors and celebrity’s characteristics in case of various products. (All products, selected for this research)

3.6 Research Strategy

The research strategy is a general plan of how the research questions are answered by the researcher. The different strategies are; experimental, survey, case study, action research et cetera (Saunders et al., 2009). The choice of strategy is guided by the research questions. The purpose of this research is fulfilled through performing quantitative surveys and combining the results from this with theories gained from previous research. The thesis establishes if it is beneficiaries for newly started ventures targeting cost effectiveness and having low budget to spend on endorsement resulting to invest in non-celebrity endorsement. An exploratory research is conducted, where the relationships between different variables are tested (Saunders et al, 2009). The exploratory study is executed by testing how consumers are influenced by different advertisements endorsed by either non-celebrities or celebrities. The study is structured in a way that participants were presented with a survey containing one question (Que. - 4) having sets of advertisement pertaining to the selected products, mainly from FMCG category in which advertisement of each product observed by both types of endorsers.
3.7 Survey Design

Regarding the methods within the quantitative approach, there is one dominating way of collecting data; conducting a questionnaire with given answer alternatives. This is a primary data collection, where the researcher asks questions with given answer alternatives within the area that has already been defined. The answer alternatives which participants are presented with could be; yes/no, completely agree; do not agree at all, very positive; very negative et cetera. There are other ways of performing a quantitative study; such as a secondary data collection, where existing statistical analysis and previous research is used as a foundation. The criticism against this approach is the questionable reliability and validity of the sources. When primary data are collected, it is more time consuming since there is a great amount of preparatory work before the actual questionnaire is created. The researcher has collected primary data in this research through a questionnaire.

3.8 Independent and Dependent Variables

There are four variables that have been examined in this research. These are Physical attractiveness, trustworthiness, Expertise and likability.

a) Physical attractiveness which includes 7 point scale and the scale items are Beautiful, Elegance, sexy and pleasant.

b) Trustworthiness which include 7 point scale and the scale items are Dependable, Honest, Reliable, Sincere, Believable and having good reputation.

c) Expertise includes 7 point scale and the scale items are Experienced, Knowledgeable, Qualified, Skilled, and Professional.

d) Likability include 7 point scale and the scale items are Familiar, Similar, I can relate, Appropriate and Logical.

A dependent variable changes accordingly to a change in other variables (Saunders et al., 2009). In this study, there have been different Independent variables in the different tests. Physical attractiveness, Trustworthiness, expertise and likability (as presented in the previous chapter) all act as independent variables. The dependent variables of this study are the attitudes toward the advertisement, product and the consumers’ intent to purchase. The other independent variables are related to
demographics of respondents, these are Age, Gender, Income, and Education & Occupation. The relationship between the independent and the dependent variables were measured through statistical analysis in Statistical Product and Service Solutions (SPSS).

3.9 Questionnaire Development

The survey questions are based on the models presented in the theoretical framework. The questions intend to measure the concepts from the models; Physical attractiveness, trustworthiness, expertise and likability. The questions regarding the source models follow “The Source Credibility Scale”, developed by Ohanian (1990) as guidance for the word pairing in the answers of questions 5 (a) and 5 (b) in the research questionnaire. The intentions of purchase of various products were in Question-6 with respect to all product categories. Here four point scale (1= Definitely Buy to 4= definitely not buy) used. This will give respondent’s purchase intention with respect to these products endorsed by celebrity. While effectiveness of celebrity endorsement was given in Question-7, which include 24 statements pertaining effectiveness of celebrity endorser.

Table 3.1 Measurement of Research Questions

<table>
<thead>
<tr>
<th>Theoretical Frame</th>
<th>Measures</th>
<th>Survey Question</th>
<th>Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Source Credibility Model</td>
<td>Perceived trustworthiness and expertise of the celebrity &amp; non-celebrity</td>
<td>5 (a) for celebrity and 5 (b) for non celebrity</td>
<td>Is there any difference in customer’s perceptions with respect to celebrity versus non-celebrity endorsers in advertisements?</td>
</tr>
<tr>
<td>The Source Attractiveness Model</td>
<td>Perceived attractiveness of the celebrity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Meaning Transfer Model</td>
<td>Effectiveness of endorser as a celebrity</td>
<td>Twenty four statements of question seven</td>
<td></td>
</tr>
</tbody>
</table>

(Source: prepared by researcher)

Question number 1 in questionnaire is related to identifying sources of information for various categories of product. The formation of question as “Where do you usually get information about products / services?”
Question number 2 and 3 are related to identifying observation of celebrity & non-celebrity endorsement in advertisements for selected product categories. The question presented in questionnaire is “Which of the following product categories knowing by you endorsed by celebrity/non-celebrity?”

Question 4 in the questionnaire is pertaining to given pair of advertisements of different product categories. These pairs of advertisements are taken by observing advertisements in print and electronic media, including Television commercials and advertisement on the websites. The criterion for selection of advertisement was on the basis of frequency of advertisements. The question asked along with a pair (celebrity & non celebrity) of various product advertisements is “which one did you like more compared to the other one?”

3.10 Pre-testing of Questionnaire

The main objective of the questionnaire pre-test is to ensure that wording of the statement, flow of questions, scale suitability measurement, instructions, and explanations of questionnaire was proper (Churchill et al., 2010). The pre-testing should be undertaken to ensure that the questionnaire communicates the information correctly and clearly to the respondent. According to Churchill et al. (2010), data collection should never begin without an adequate pre-test of the instrument. This step is still considerably necessary besides; the items used in this study were taken from the literature studies. According to Sekaran (2003), wordings have different meanings and connotations in different cultural contexts and so pre-testing of instrument can help to rectify any inadequacies before hand. Arising out of the literature review the questionnaire was developed. The pre-testing was undertaken by screening the questionnaires with academician of management field, who were used to pre-test the questionnaires. The necessary adjustments regarding vagueness were made to the questionnaire.

3.11 Pilot Test

In second phase pilot test was conducted to purify the main measure and questionnaire to be used in the main research. After the development of the questionnaire, a pilot survey was conducted to check for the need of refining the measurement items, variables and to further check for face validity. In the
questionnaire, seven point scale used. The results were factor analyzed in order to
determine the dimensionality of scale. The items with factor loadings less than 0.5
were eliminated in the pilot stages (Hair et al., 2010). The factors were extracted by
using the minimum eigenvalue criterion, which extracts factors with Eigen values
greater than one. In addition to factor analysis, co-efficient alpha was computed
separately for the dimensions to ascertain the extent to which items making up the
dimensions shared a common core (Hair et al., 2010).

The field survey was administered to 100 respondents using a convenience
sampling method in various areas of Ahmedabad city for the pilot study. The
developed questionnaire was used for conducting pilot survey. The respondents were
then asked to answer all the questions considering their views regarding to celebrity
and non-celebrity endorsement. The data were analyzed for the pilot test using SPSS
19 version. Once the data were obtained, unidimensionality of the constructs was
checked by measuring the reliabilities of the constructs using Cronbach’s alpha
coefficients.

3.12 Measurement Scales

Celebrities were rated on four personal characteristics of a spokes-person. These
characteristics, drawn from prior research, were: (1) Physical attractiveness (2)
Trustworthiness (3) Expertise (4) Likability of the spokesperson's image with the
product. Ohanian’s (1990) scale was used to assess the celebrity endorsers’ credibility,
attractiveness, and expertise.

To measure Physical Attractiveness, “Beautiful/Elegant/Sexy/pleasant” scale were
selected, with Cronbach’s $\alpha$ of 0.647.

To measure Trustworthiness, “dependable/honest/reliable/sincere/believable” and
“having good reputation” scale were selected, with Cronbach’s $\alpha$ of 0.873.

To measure expertise “experienced/knowledgeable/qualified/skilled/professional”
scale were selected with Cronbach’s $\alpha$ of 0.858.

Whereas for measurement of likability “familiar/similar/I can relate/appropriate/
logical” were selected with Cronbach’s as of 0.833.
### Table 3.2 Summary of Scale.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Scale</th>
<th>Source / Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Attractiveness</strong></td>
<td>Beautiful – Not Beautiful</td>
<td>Kahle L.R. &amp; Homer P.A. (1985)</td>
</tr>
<tr>
<td></td>
<td>Elegant – Plain</td>
<td>McGuire, W. J. (1985)</td>
</tr>
<tr>
<td></td>
<td>Sexy – Not sexy</td>
<td>Kamins M.A. et al. (1989)</td>
</tr>
<tr>
<td></td>
<td>Pleasant – Not pleasant</td>
<td>Roobina Ohanian (1990)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>David H. Silvera and Benedikte Austad (2003)</td>
</tr>
<tr>
<td></td>
<td>Reliable – Unreliable</td>
<td>Roobina Ohanian (1990)</td>
</tr>
<tr>
<td></td>
<td>Having good reputation – Not having good reputation</td>
<td></td>
</tr>
<tr>
<td><strong>Expertise</strong></td>
<td>Experienced – Inexperienced</td>
<td>Roobina Ohanian (1990)</td>
</tr>
<tr>
<td></td>
<td>Skilled – Unskilled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Professional – Unprofessional</td>
<td></td>
</tr>
<tr>
<td><strong>Likability</strong></td>
<td>Familiar – Unfamiliar</td>
<td>Kahle L.R. &amp; Homer P.A. (1985)</td>
</tr>
<tr>
<td></td>
<td>Similar – Dissimilar</td>
<td>Kamins M.A. et al. (1989)</td>
</tr>
<tr>
<td></td>
<td>Appropriate – Not appropriate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Logical – Illogical</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Prepared by researcher based on reviewing literature)
3.13 Attractiveness

The attractiveness construct has been defined both in terms of facial and physical attractiveness (Baker and Churchill 1977; Caballero and Solomon 1984; Patzer 1983), sexiness (Steadman 1969), or sexualness and likability (Muddux and Rogers 1980). Further, Joseph (1982) summarized the experimental evidence in advertising and related disciplines regarding physical attractive communicators are consistently liked more and have a positive impact on product evaluation and other dependent measures. He concluded that attractive (versus unattractive) communicators are consistently liked more and have a positive impact on products with which they are associated.

3.14 Trustworthiness

McGinnies and Ward (1980) manipulated a source's expertise and trustworthiness to assess the impact of each of these components on the communicator's persuasiveness, their findings indicated that a source that was perceived to be both an expert and trustworthy generated the most opinion change. In fact, the trustworthy communicator was persuasive, whether an expert or not. Further, Friedman and Friedman (1976), and Friedman, Santeramo, and Traina (1979) investigated several correlates of trustworthiness and concluded that celebrities who are linked will also be trusted. Trustworthiness was highly correlated with a respondent's perceived similarity to the source, the level of source's expertise, and the source's attractiveness.
3.15 Expertise:

Crano (1970) has experimentally manipulated the dimensions of expertise and found that subjects exposed to an expert source exhibited more agreement with the advocated position than did those exposed to a low-expertise source. Finally, in a selling context, an expert salesperson induced a significantly higher number of customers to purchase a product than did the non-expert salesperson (Woodside and Davenport, Jr. 1974). However, there might not be a distinction between non-celebrities and celebrities in possession of knowledge, experience and skills. However, since expertise also is defined as the ability of the source to make truthful statements (Erdogan, 1999), it could be presumed that since non-celebrities might be trusted more, they are also trusted to be expert if portrayed in advertisement. For example, Dentist used in the advertisement of toothpaste.

3.16 Likeability

Celebrity likability refers to the positive or negative feelings that consumers have toward a celebrity (Mowen and Minor, 1998). It can also be defined as the extent to which the source is viewed as behaving in a way that matches the desires of those who observe him or her. Thus, celebrities are likeable because they act or support beliefs that are similar to those of the audience (Mowen and Minor, 1998). Brand liking is affected by a spokesperson’s likeability. Respondents tend to like brands that are associated with the characters that they like (Callcott and Philips, 1996). Meanwhile, Urde (1994) states that likable spokespersons increase attention to a brand, enhance brand liking and thus create a considerable impact on the consumers’ purchase behavior and their loyalty towards the brand.
3.17 Sampling Plan:

This section provides details on population, sampling frame, sampling unit, sampling method, and sample size.

3.17.1 Target Population:

The target population defined as the collection of objects which processes the information required by the researcher and about which inferences are to be made (Bajpai, 2011). The target population is the group of elements for which the survey investigator wants to make inferences using the sample statistics. The target population definition has to specify the kind of units that are elements in the population and the time extents of the group (Cooper and Schindler, 2006).

For the first phase for the pre-test of questionnaire experts, mainly academic faculties were considered as population. For the second phase pilot study was conducted for testing constructs validity and reliability, in which respondents of Ahmedabad city were considered as population. For the purpose of final study, the target population comprised of individual, both male and female, eighteen years and above, from major cities of the state of Gujarat which include Ahmedabad, Rajkot, Vadodara, Surat, Bhavnagar, Mehsana and Himatnagar.

3.17.2 Sample Size

This section explains how the size of the sample was designed for this research. According to Zikmund (2003), sample size formulas cannot appropriately be used for non probability samples, the determination of the necessary sample size is usually a subjective, intuitive judgment made by the researcher, based on past studies or the amount of resources available. The historical evidence approach was one of the methods used for non-probability sampling to determine the sample size (Churchill et al., 2010). Malhotra (2007) believes that sample size affects the accuracy of results. Sample size also has a direct impact on the appropriateness of the statistical techniques chosen (Hair et al., 2010).
The past studies have used a sample size between 265 (Ohanian, 1990) and 267 (PhangLang and Fumitaka Furuoka, 2007). Jain Varsha et.al (2010) have used 240 sample size, (Kumar Brajesh and Patra Gouranga, (2011) used sample size of 410 whereas, Lalitha Balakrishnan and C. Shalini Kumar (2011) has used 600 sample size of Chennai city in their studies. In order to decide the sample size, according to Malhotra (2007), the sample size should be 142 at least ten times as many subjects as items, when multivariate analysis used. In this study, multivariate analysis techniques like regression analysis, ANOVA, factor analysis were used. For the current study, the total 968 sample sizes is kept in order to compensate for any errors in the filled in questionnaire.

3.17.3 Data Collection Procedure

The survey method was employed to obtain relevant data for advertising effectiveness for celebrity and non-celebrity endorsement of selected products. The state of Gujarat was chosen for the purpose of the study. The data were gathered from personal interviews conducted at the convenience of interviewer and respondent. The data were collected using face to face interview with a structured questionnaire. The survey method was chosen due to its ability to accommodate a large sample size at relatively low costs and its ease of administration (Zikmund, 2003). A questionnaire presented to the respondents. During the filling-in, any doubts about the questions were clarified by the interviewer on the spot. After the questionnaire was completed, the interviewer collected it immediately and checked if all the questions had been answered.

3.17.4 Data Analysis Procedure

The data analyses included a profile of the respondents, preliminary data analyses and hypothesis tests. The response rate and an illustration of the respondents were first provided, followed by the preliminary data analyses. The preliminary analyses are essential because they can ensure that the multivariate methods chosen are applied in appropriate situations (Hair et al.,
They also lend credibility to all subsequent analyses and increase accuracy in the results (Sekaran, 2003).

The analytical process in this initial stage provided descriptive statistics of mean and standard deviation, with descriptive statistics for each of the statements to describe the responses. The hypothesis test included assessing reliability and validity of measurement scales and testing the hypotheses involving the relationships between characteristic of celebrity and non-celebrity, purchase behavior and the hypotheses pertaining to demographics. The reliability and validity of the interval-scaled measure items can ensure that the items indeed measure the constructs they are supposed to and measure them accurately (Sekaran, 2003). The reliability test was conducted to report the results of the factors. Malhotra (2007) stressed the importance of considering reliability and validity in basic and applied research. The factor analysis is a multivariate statistical technique that is used to summarize information contained in a large number of variables into a smaller number of subsets or factors. The purpose of factor analysis is to simplify the data and detect structure in the relationship between variables. With factor analysis, there is no distinction between dependent and independent variables, rather, all variables under investigation are analyzed together to study underlying variables (Hair et al., 2010). A t-test, one-way ANOVA was employed to investigate the demographics related hypotheses. The regression analysis was used to investigate the relationship between consumer’s celebrity and non-celebrity’s attractiveness, trustworthiness, expertise & likability and purchase behavior. The multiple regression analysis was the main technique used to examine the relationships between the celebrity and non-celebrity endorsement for selected product categories for this research. The multiple regressions are a suggested technique which is widely used to analyze the relationships between a single dependent variable and a set of independent variables (Hair et al., 2010). It is a statistical tool that is usually used when both the dependent and independent variables are metric (Hair et al., 2010).
3.18 Conclusion

This chapter has presented an overview of the methodology employed in this study to address the research problem, characteristics of celebrity and purchase behavior. The methodology was based on development of items for the constructs using the literature study. The quantitative approach of this research was justified. The three phase process was identified as an appropriate and scientifically sound research methodology. The three phases included (1) construct definition and judging of measurement items (2) pilot testing the instrument and scale and refine them for final field study (3) assessment of the reliability and validity and hypothesis testing. Various hypotheses were developed on the basis of the literature review, research methods, including measurement of constructs, questionnaire design, data collection, sample size, and data analysis methods were discussed. The multiple regression analysis, t-test, and one-way ANOVA, factor analysis was employed to test the hypotheses.
References:


Friedman, Hershey H., Michael J. Santeramo, and Anthony Traina (1979), “Correlates of Trustworthiness for Celebrities,” Journal of Academy of Marketing Science, 6 (4)


