

## **CHAPTER 6**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **6.1 Research Design**

The study involves both exploratory research design as well as descriptive research design.

In this study extensive literature surveys and reviews were carried out for formulating problem for more precise investigation and for developing hypothesis. It may also help in establishing priorities for future research.

Moreover, after collecting primary data statistical methods viz. cross sectional analysis was carried out which describes the features of certain groups with respect to product categories selected and attitude towards products with different age group, gender, occupation, type of family, and level of income. It also helps in determining association between certain variables.

#### **6.2 Sample Plan**

Convenient sampling method (disproportionate) was used to collect primary data. Information was collected from respondents each outside different retail outlets in different parts of four major cities of Gujarat State.

Cities included for research purpose are Ahmedabad, Surat, Vadodara, & Rajkot, which were selected with respect to the most populous cities in Gujarat as per census 2009 as given in Table 6.1.

Respondents were divided on the basis of cities and 125 respondents were selected from each selected city hence, all together 500 respondents were selected for the study. For the same around 700 questionnaires were filled, but 200 incomplete, inappropriate responses, and non-relevant responses, were dropped from the study.

**Table 6.1 : Population of Major Cities of Gujarat State**

<b>Rank</b>	<b>City</b>	<b>Population (2009) (Estimated)</b>	<b>Population (2001)</b>	<b>District</b>
1	Ahmedabad	3,913,793	3,520,085	Ahmedabad
2	Surat	3,344,135	2,433,835	Surat
3	Vadodara	1,513,758	1,306,227	Vadodara
4	Rajkot	1,395,026	967,476	Rajkot

*Source:* www.worldgazetteer.com. <http://www.worldgazetteer.com/wg.php?x=&men=gcis&lng=en&des=wg&geo=104&srt=pnan&col=adhoq&msz=1500&pt=c&va=&geo=-1862>. Retrieved 2009-11-30.

### **6.3 Source of Data Collection:**

For studying consumer's attitude towards private label brands, both sources of data viz. Primary and Secondary were used.

#### ***Primary Source of Data***

Data were collected from around 700 respondents in all the four major selected cities of Gujarat State, but out of them only 500 (i.e. 125 from each city) correct, complete and valid respondents were selected.

#### ***Secondary Source of Data***

Data are also referred and presented from different books, print as well as online national and international journals, magazines, news-papers, online data base, as well as different website on Retailing, Retail Management, Private Labels, Store Brands / Own Brands, to name a few.

### **6.4 Research Approach:**

Data were collected from 700 respondents through structured questionnaire, but only 500 correct, complete and valid were selected from all the four selected cities, which stand to 125 respondents from each selected city.

## 6.5 Data Collection Tool:

Tool employed for generating responses was structured questionnaire, consisting of 40 Questions.

- Out of 40 questions 9 questions were framed to gather demographic as well as personal profile of respondent, which includes name, place / city, gender, age, monthly household income, marital status, type of family, occupation, monthly frequency of visiting retail outlet for shopping. All demographic parameters were included as per the past studies carried out on the similar study by various researchers and are included as part of review of literature.
- While 1 Question was framed to rate individual's importance of attribute on Likert Scale. Attribute includes preference for Quality of product, Price of product, Risk Associated with product, Packaging of Product and Brand Image of Product. All attributes were included as per the past studies carried out on the similar study by various researchers and are included as part of review of literature.
- 30 Questions were framed to rate & compare national brands as well as private labels with respect to five different attributes viz. Quality, Price, Risk Associated, Packaging and Brand Image across 3 different categories viz. Consumer Durables, Personal Care & Home Care Products on Likert Scale.

## 6.6 Model Used for the Research Study & Derivation of Scale

For data analysis “Adequacy Importance” model is used, in which 5 attributes identified was framed in model and importance was measured on scale of 1 = Least Significant to 7 = Most Significant across different product categories. “Adequacy Importance” model happens to be one of the most widely used models appearing in consumer behavior research (Cohen, Fishbein, & Ahtola (1972).

Model can be described as:

$$A = \sum P * D$$

Where

*A* = an individual's attitude toward the brands;

*P* = importance of attribute (dimension) for the person;

*D* = individual's evaluation of brands w.r.t the corresponding attribute (dimension).

Further attitude was obtained on scale of 1 to 7 as 1 = extremely negative attitude, 2 = moderately negative attitude, 3 = slightly negative attitude, 4 = neither negative nor positive attitude, 5 = slightly positive attitude, 6 = moderately positive attitude & 7 = extremely positive attitude. Following table shows interpretation of respondent's attitude with respect to mean (attitude) calculated in ANOVA, as well as their corresponding belief towards different attributes associated with product category. SPSS 17 & advance Excel applications were used for data analysis.

- Derivation of Scale for interpretation of respondent's attitude:

Table 6.2 : Interpretation of Respondent's Attitude with Respect to Mean Calculated for Corresponding Belief Towards Different Attributes Associated			
Corresponding Mean calculated in ANOVA for attitude	Interpretation as Attitude towards attribute		Corresponding belief with respect to Attribute
1 (-21 to -15)	Extremely negative attitude towards :	Quality	Extremely low quality
		Price	Extremely expensive
		Risk	Extremely risky
		Packaging	Extremely unattractive packaging
		Brand Image	Extremely low brand image
2 (-14 to -8)	Moderately negative attitude towards :	Quality	Quite of low quality
		Price	Quite expensive
		Risk	Quite risky
		Packaging	Quite unattractive packaging
		Brand Image	Quite low brand image
3 (-7 to -1)	Slightly negative attitude towards:	Quality	Slightly low quality
		Price	Slightly expensive
		Risk	Slightly risky
		Packaging	Slightly unattractive packaging
		Brand Image	Slightly low brand image
4 (0)	Neither negative nor positive attitude towards:	Quality	Neutral
		Price	Neutral
		Risk	Neutral
		Packaging	Neutral
		Brand Image	Neutral
5 (1 to 7)	Slightly Positive attitude towards :	Quality	Slightly high quality
		Price	Slightly cheap
		Risk	Slightly risk free
		Packaging	Slightly attractive packaging
		Brand Image	Slightly high brand image
6 (8 to 14)	Moderately positive attitude towards :	Quality	Moderately high quality
		Price	Moderately cheap
		Risk	Moderately risk free
		Packaging	Moderately attractive packaging
		Brand Image	Moderately high brand image
7 (15 to 21)	Extremely positive attitude towards :	Quality	Extremely high quality
		Price	Extremely cheap
		Risk	Extremely risk free
		Packaging	Extremely attractive packaging
		Brand Image	Extremely high brand image

## **6.7 Statistical Methods used for Data Analysis as well as Testing of Hypothesis.**

For purpose of data analysis following statistical methods was applied.

- Frequency Distribution
- Reliability Analysis by finding Cronbach's Alpha
- Test for Normality by P-P Plots
- T – test
- Mean Analysis
- One way ANOVA (Analysis of Variance)
- Calculation of LSD (Least Significant Difference) to find inter-categorical similarities as well as differences.

## **6.8 Definitions and Discussion of Terms Used**

### **Place / District**

Data were collected and are representing the respondents from four major selected cities of Gujarat State, viz. Ahmedabad, Surat, Vadodara and Rajkot. For the research study only urban respondents who were shopping in different shopping malls and who have used or purchased private label / store brands were only considered. From each city sample of 125 respondents were selected. Moreover city itself was considered as strata, hence to see and compare change in attitude with respect to city across five selected attributes and three selected product categories.

### **Gender of Respondent**

To understand the attitudinal differences across product categories with respect to selected attributes in respective cities, it was found necessary to include the gender as one of the demographic parameter for analysis.

### **Age of Respondent**

Age indicates the age of respondents in completed years. In the questionnaire age was to be mentioned in absolute numbers (i.e. exactly completed years); hence to increase involvement of respondent right from beginning for filling the complete questionnaire.

Further for analysis it was grouped as follows:

- 18 to 30 Years
- 31 to 40 Years
- 41 to 50 Years
- 51 to 60 Years

### **Total Household Income / Month (Rs.)**

Household income includes the income of all members of household and from all sources. It was to be answered in absolute terms (i.e. exactly after adding all family

members income per month from all sources); which is also part of increasing involving the respondents. Moreover as many of the students were also respondents hence the question was asked for total household income per month instead of personal income.

Further for analysis it was grouped as follows:

- Up to. Rs. 20,000
- Rs. 21,000 to Rs. 40,000
- Rs. 41,000 to Rs. 60,000
- Rs. 61,000 to Rs. 80,000
- Rs. 81,000 to Rs.100,000

### **Type of Family**

This parameter was incorporated to see the attitudinal difference amongst respondents living in nuclear and joint family, with respect to the five attributes and three product categories across the four cities. They were to be marked as

- Nuclear Family (Individual, Husband, Wife and or children)
- Joint Family (Individual Member / Husband / Wife with elderly members / parents / in-laws and or children)

### **Occupation**

Respondents from below mentioned selected occupation were included for research study.

- Student

Who have crossed 18 Years of age and are associated with any of education or academic institute or body.

- Housewife

Woman who is engaged only in taking care and routine house hold affairs. She is not serving neither playing any direct role as earning member.

- Service Class

It includes government, semi-government and private organizations' employees who are drawing monthly salary.

- Self Employed / Business

Respondents involved in trading, manufacturing, commission agents, brokers, shopkeepers, and or involved in business through virtual space.

- Professionals (Dr, CA, Lawyer, Consultant)

Technically qualified persons like doctors, chartered accountants, company secretaries, advocates, consultants, architects.

### **Marital Status**

To see attitudinal difference with respect to marital status of respondents this demographic variable was also part of our study. It was to be marked as follows.

- Unmarried (Respondent who is never married)
- Married (All respondents who were either married or divorcee or one of spouse expired)

### **Frequency of visiting retail outlet / shopping mall**

The question was asked to see attitudinal difference with respect to monthly frequency of visiting retail outlet / shopping malls. It was to be marked as follows.

- Daily
- 2-3 Days / Week
- Weekly
- Fortnightly
- Monthly

## 6.9 List of Abbreviations Used in Data Analysis and Interpretation.

Following are abbreviations and the related words which were used while analyzing and interpretation of data.

Abbreviations Used	Word
• Q	Quality
• P	Price
• R	Risk (Associated)
• PC	Packaging
• BI	Brand Image
• <u>N</u>	National Brand
• <u>P</u>	Private Label
• CD	Consumer Durable
• PC	Personal Care Product
• HC	Home Care Product

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