CHAPTER 4

RESEARCH METHODOLOGY

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CHAPTER – 4
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INTRODUCTION:

Research is considered as an endeavor to arrive at answer to intellectual and practical problems through the application of scientific methods to the knowable universe. Research is a logical and systematic search for new and useful information on a particular topic. It is an investigation of finding, solutions to scientific and social problems through objective and systematic analysis. It is a search for knowledge, that is, a discovery of hidden truths. Here knowledge means information about matters. The information might be collected from different sources like experience, human beings, books, journals, nature, etc. A research can lead to new contributions to the existing knowledge.

Only through research it is possible to make progress in a field. Research is done with the help of study, experiment, observation, analysis, comparison and reasoning. Research is in fact everywhere.

It is a systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena. Research is the process of systematic and in depth study or search of any particular topic, subject or area of investigation, blackened by the collection, compilation, presentation and interpretation of relevant details or data.

In short search for knowledge through objective and systematic method of finding a solution to a problem is a research.

This Chapter includes the research Methodology in broader prospective incorporating Research objectives, Research Design, Methods of Data collection, Sampling Techniques, Sample Size and Statistical Tools used for Data Analysis, Benefits of the Study, Limitations and Delimitations of the study.
4.1. OBJECTIVES OF THE STUDY:

The objectives of the study have been divided into two category namely main objective and the sub objectives are as follows:

THE MAIN OBJECTIVE OF THE STUDY:

I. To study the Rural Marketing Strategies of selected H.U.L. products and its influence on buying behavior of the selected rural respondents from rural market in Gujarat State.

SUB OBJECTIVES OF THE STUDY:

I. To assess consumer awareness for H.U.L. products in selected rural areas of Gujarat State.

II. To examine the factors responsible for increasing competitiveness among F.M.C.G. manufacturers for entry into the rural market segment of Gujarat State.

III. To study the impact of various factors affecting the rural consumer buying behavior, towards selected H.U.L. products in rural areas of Gujarat State.

IV. To study the satisfaction level associated with selected H.U.L. products in rural areas of Gujarat state.

V. To study the impact of pricing factor for selected F.M.C.G. products of H.U.L. in rural areas of Gujarat State.

VI. To study the present promotion strategies for selected F.M.C.G. products of H.U.L. in selected rural areas of Gujarat State.

VII. To analyze the factors responsible for switch over from the H.U.L. products by the customers in the rural areas of Gujarat State.

VIII. To study the present Distribution strategies of H.U.L. for selected F.M.C.G. products in rural market of Gujarat State.

IX. To study the present scenario of H.U.L. in rural marketing in Gujarat State (With a selected products and geographical area).
4.2. BENEFITS OF THE STUDY:

I. The study will be beneficial for the rural consumer of selected rural areas of Gujarat state. With the help of this study the consumers will know about the various products, pricing factors, promotional schemes, marketing strategies, competitiveness of the product and the availability of products in their surroundings.

II. The study will also be beneficial for the H.U.L. to know about the expectation of rural consumers in the selected areas of Gujarat state. H.U.L. can decide their marketing strategies, product strategies, promotional schemes, pricing policies, advertising policy, etc at the time of taking crucial decisions to enhance their business at mass level.

III. On academic point of view it is helpful for researcher and academician to take it as a reference material for further studies on and around this topic at regional, national and global level.

4.3 RESEARCH DESIGN:

A research design is a framework or blue print for conducting the research project. It details the procedures necessary for obtaining the information need to structure and/or solve research problems. The research design lays the foundation for conducting the project. The research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research with economy in procedure².

The present study has been considered a combination of descriptive and analytical research design. Descriptive in the nature due to fact finding with the help of literature survey and the analysis of demographic profile of the respondents in the particular area considered for this study. The present study said to be descriptive due to the information gathered to describe the current rural marketing phenomenon, distribution channels, level of awareness, various factors affecting the buying behavior of the customers, motivating factors for switch over and the various promotional activities being offered by the different manufacturer and marketer of the products at national, regional and state level in the country.
The study is said to be analytical due to the application of statistical tools used for data analysis. Data has been analyzed with the use of reliability of the study, frequency analysis, cross tabulation, correlation analysis, chi square test, factor analysis and the testing of hypothesis to arrive on conclusions.

4.4 TARGET POPULATION:
Target Population for this study has been selected rural areas of Valsad, Navsari, Vadodara, Kheda, Mehasana, Banaskantha, Narmada, Dahod, Jamnagar & Porbandar district in Gujarat state. The main focus of the present study is the rural customer and hence rural areas and residents of these areas of these districts have been considered as the target population. The reasons for considering these areas are fast developing areas or undeveloped areas, low literacy level, low level of living standards, unstructured transportation facilities, water supplies, etc.

As Gujarat state comprising of 26 districts divided into 225 sub districts/Talukas and these comprise of 18225 villages across Gujarat. These villages consists of 34, 670, 817 residents members. These populations of the rural Gujarat have been considered as target population for this particular study. Out of total village the villages consisting of population between 1000 – 4999 have only been considered for this study as target respondents.

4.5 SAMPLING TECHNIQUES:
Multistage sampling comprising of Cluster, Stratified and Convenience sampling has been used to draw a required sample size for this study. At the initial stage, rural areas of Gujarat have been clustered in a five zone namely North, South, East, West and central Gujarat. Out of these five clusters, two districts which is developing fast and supposed to be developed in near future from each cluster have been taken into consideration for the study. From each districts, two talukas have been selected on the basis of population, distance from each other, nearness to the districts and the fast developing talukas in that districts. From each talukas, three fast developing villages have been considered for the study.
On the second stage, populations of the selected villages have been stratified on the basis of gender, living standard, educational qualification and the age group etc. of the respondents. At the time of survey, priority given to cover all identified strata in the selected village of rural Gujarat.

At the final stage, on the basis of researcher convenience and the availability of the respondents at the time of visit have been taken into consideration for this particular study. At this stage 20 respondents from each village have been taken into consideration from each identified strata.

4.6 SAMPLE SIZE:

With the consultation of academic experts and Marketing Professionals across Gujarat, researcher made an attempt to arrive at true representative sample size. In this regard various authors such as Dr. Uma Sekaran in the area of social research taken in to consideration for finalization of the sample size. As per the recommendation of William G. Cochran in his book “Sampling Techniques”, published by Wiley India, the sample sizes have been finalized as 1200 respondents as under:

<table>
<thead>
<tr>
<th>Zone</th>
<th>District</th>
<th>Sub District /Taluka</th>
<th>Villages</th>
<th>No. Of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Gujarat</td>
<td></td>
<td>Valsad=60</td>
<td>Rabada</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chharwada</td>
<td>20</td>
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<td></td>
<td></td>
<td></td>
<td>Malvan</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pardi=60</td>
<td>Udwada</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dumlav</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bagwada</td>
<td>20</td>
</tr>
<tr>
<td>Navsari=60</td>
<td></td>
<td></td>
<td>Chhapra</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sisodra</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bharagiri</td>
<td>20</td>
</tr>
<tr>
<td>Chikhli=60</td>
<td></td>
<td></td>
<td>Khergam</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Khundh</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chikhli</td>
<td>20</td>
</tr>
<tr>
<td>Region</td>
<td>Districts</td>
<td>Samples</td>
<td>Towns</td>
<td>Count</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------</td>
<td>---------</td>
<td>----------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Central Gujarat</td>
<td>Vadodara</td>
<td>60</td>
<td>Asoj</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Savli</td>
<td>60</td>
<td>Serkhi, Por</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Manjusar, Muval, Gothada</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td>Kheda</td>
<td>60</td>
<td>Salun, Dabhan, Nadiad</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td>Kapadvanj</td>
<td>60</td>
<td>Uttarsanda, Atarsumba, Kathalal, Khadol</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Gujarat</td>
<td>Mehsana</td>
<td>60</td>
<td>Visnagar, Valam, Bhandu</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td>Unjha</td>
<td>60</td>
<td>Unava, Maktupur, Brahmanwada</td>
<td>20, 20</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>Tharad</td>
<td>60</td>
<td>Duva, Piluda, Jethda</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td>Vadgam</td>
<td>60</td>
<td>Vadgam, Meta, Nagarwada</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Gujarat</td>
<td>Narmada</td>
<td>60</td>
<td>Nandod, Ouri, Gopalpura</td>
<td>20, 20</td>
</tr>
<tr>
<td></td>
<td>Dediyapada</td>
<td>60</td>
<td>Kevdi, Kartal, Magardev</td>
<td>20, 20</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dahod</td>
<td>60</td>
<td>Katwara, Bordi, Navagam</td>
<td>20, 20</td>
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<td></td>
<td></td>
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</table>
Out of this 1049 questionnaires were received back, but 49 questionnaires were discarded as they were not filled up adequately. Hence the analysis has been carried out on the basis of 1000 respondents.

4.7 METHODS OF DATA COLLECTION:

Combination of Primary and Secondary methods of data collection has been used to arrive on a conclusion.

Secondary data have been collected from the books, journals, magazine and newspapers and with the help of various online journal and web portal to conceptualize and make theoretical concepts for this particular study.

Primary data have been collected with the help of structured and non disguised close ended questionnaire. Initially questionnaire was drafted on the basis of past references used by prominent scholars in that field. The questionnaire has been converted in to Gujarati language for the better understanding of the questions by the rural respondents and proper
care has been taken during the translation so the meaning of the questions should remain same, and the same has been tested too. The questionnaire consists of 59 questions comprising of three sections namely demographic profile of the respondents, Likert type 4p’s rural marketing questions and section 3 has again two parts, consist of H.U.L. users and H.U.L. non users.

In demographic profile personal information of the respondents have been taken such as gender, age, educational qualification, occupation, types of family, total monthly income, number of family members, nature of accommodation, main source of communication, availability of luxurious, semi luxurious and basic goods, distance of buying place from residential area and monthly budget for F.M.C.G. products.

In second section of likert type questions, there are total 25 questions. These questions have been divided in to four section as per 4p’s of marketing, namely product, price, place and promotion. In each section there are few questions related to the opinion of rural respondents towards F.M.C.G. products.

In the third section, few questions have been asked to respondents to know about the current products in selected F.M.C.G. product categories they are using, their frequency of purchase, there awareness about H.U.L. selected products, and about their usage of H.U.L. products. Then the section has been divided in to two section namely, H.U.L. users and H.U.L. non user section.

In H.U.L. users section, source of information of the products, satisfaction level with the products, factor affecting buying decisions, availability of the H.U.L. products, thinking about switch over, important factors for switch over and most favorable promotional activities by the respondents have been asked to collect the desired information.

In last and H.U.L. non users section, same types of questions have been asked as in H.U.L. users section from the respondents regarding the products they are using at the time of survey.
The researcher has distributed 250 questionnaires in the identified rural areas of each zone of the Gujarat state. In each selected village researcher visited personally and taken the response from the respondents. In the second stage incomplete and unanswered questionnaire have been discarded by the researcher and finally considered 1000 respondents as sample size for the purpose of data entry and analysis.

4.8 RELIABILITY AND VALIDITY OF THE STUDY:

The study is valid if its measures actually measure what they claim to and if there are no logical errors in drawing conclusions from the data (Garson, 2002). Therefore different steps were taken to ensure the validity of the study. The theories that have been selected for the study was clearly described and research question has been formulated based on the previous theories. To check the content validity of the questionnaire various expert in the field of academics and marketing professionals were contacted and the components of questionnaire were modified as per their instructions.

According to Garson (2002), reliability is a measure if the extent to which an item, scale or instrument will yield the same score when administered in different times, location or population, when the two administrations do not differ in relevant variables. The objective is to make sure that if another investigator will follow the same procedures and used the same case study objects, the same conclusion would be made.

Cronbach’s Alpha Reliability Index was used to evaluate internal consistency of each construct. Hair et al. (1998) suggests that that acceptable level of reliability index should be maintained at a minimum of 0.5 in order to satisfy for the early stages of research; and over 0.7 is considered to be a good level.

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
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<tbody>
<tr>
<td>Cronbach's Alpha</td>
</tr>
<tr>
<td>0.694</td>
</tr>
</tbody>
</table>

Over all reliability for this study have been calculated and found to be 0.694 which is close to 0.7 and hence considered for good level for further analysis of the data.
4.9 HYPOTHESIS OF THE STUDY:

H01: There is no association between monthly income and preferences given to the price compared to brand name and quality of the product, by rural respondents.

H02: There is no association between knowledge enhancement by advertisement of the product and advertisement always creates interest for the product.

H03: There is no relationship between total monthly income and preference given to the variety of size of product while making buying decision by rural respondents.

H04: There is no association between nature of accommodation and preference given to price compare to brand and quality of product by rural respondents.

H05: There is no relationship between main source of information and knowledge enhancement due to advertisement.

H06a: There is no association between preferred promotional activity of selected H.U.L. toilet soaps and planning to switch over from the same by rural respondents.

H06b: There is no significant association between preferred promotional activity of selected H.U.L. detergent soaps and planning to switch over the same by rural respondents.

H06c: There is no significant association between preferred promotional activity of selected H.U.L. tooth pastes and planning to switch over from the same by rural respondents.

H06d: There is no significant association between preferred promotional activity of selected H.U.L. hair shampoo and planning to switch over from the same by rural respondents.

H06e: There is no significant association between preferred promotional activity of selected H.U.L. tea and planning to switch over from the same by rural respondents.

H07a: There is no relationship between main source of information for toilet soap between H.U.L. users and Non users.

H07b: There is no relationship between main source of information for detergent soap between H.U.L. users and Non users.

H07c: There is no relationship between main source of information for tooth paste between H.U.L. users and Non users.

H07d: There is no relationship between main source of information for hair shampoo between H.U.L. users and Non users.

H07e: There is no relationship between main source of information for tea between H.U.L. users and Non users.
H0_a: There is no significant association between awareness of Lux and availability of Lux / Lifebuoy.
H0_b: There is no significant association between awareness of Lifebuoy and availability of Lux / Lifebuoy.
H0_c: There is no significant association between awareness of Rin and availability of Rin / Wheel.
H0_d: There is no significant association between awareness of Wheel and availability of Rin / Wheel.
H0_e: There is no significant association between awareness of Pepsodent and availability of Pepsodent / Closeup.
H0_f: There is no significant association between awareness of Closeup and availability of Pepsodent / Closeup.
H0_g: There is no significant association between awareness of Clinic and availability of Clinic / Sunsilk.
H0_h: There is no significant association between awareness of Sunsilk and availability of Clinic / Sunsilk.
H0_i: There is no significant association between awareness of Taaza and availability of Taaza / Taj Mahal.
H0_j: There is no significant association between awareness of Taj Mahal and availability of Taaza / Taj Mahal.
H0_k: There is no significant association between satisfaction level and brand loyalty for selected H.U.L. toilet soap.
H0_l: There is no significant association between satisfaction level and brand loyalty for selected H.U.L. detergent soap.
H0_m: There is no significant association between satisfaction level and brand loyalty for selected H.U.L. tooth paste.
H0_n: There is no significant association between satisfaction level and brand loyalty for selected H.U.L. hair shampoo.
H0_o: There is no significant association between satisfaction level and brand loyalty for selected H.U.L. tea.
4.10 STATISTICAL TOOLS USED FOR DATA ANALYSIS:

This study includes the following tools and techniques for the purpose of data analysis at various stages.

I. Measure of central tendency:
II. Measure of variability:
III. Cross Tabulation:
IV. Frequency Analysis:
V. Correlation Analysis:
VI. Chi square Test:
VII. Hypothesis testing:
VIII. Cronbach’s alpha (Reliability Test):

4.11 LIMITATIONS OF THE STUDY:

Major limitation of this study includes the following points:

I. The major limitation for this study is the geographical area and number of villages across Gujarat State. Gujarat State consists of 26 districts, 225 sub district, and 18,225 villages and 16,867,842 of rural population as have been considered for this study.

II. During the collection of data, in few cases, the researcher has faced the problem of making rural respondents clearly understand towards their doubts in few questions, which might have been reflected in responses.

III. Third major limitation of this study is that the suggestions and recommendations cannot be generalized. It will only applicable to the concern villages of different districts of Gujarat State and for selected H.U.L. products only.
4.12 DELIMITATION OF THE STUDY:

I. This study is delimited to the ten districts in Gujarat State, i.e. Valsad, Navsari, Vadodara, Kheda, Mehasana, Banaskantha, Narmada, Dahod, Jamnagar & Porbandar. Among each district three talukas have been selected and in each talukas three villages have been considered, from each village 20 respondent have been selected as a respondent for this study.

II. Sampling techniques considered for this study is also delimitation for this study. Some other sampling techniques may be used to conduct the same study in this region.