CHAPTER 4: RESEARCH METHODOLOGY

4.1 SAMPLE PLAN

Stratified Random Sampling was used in order to study the purchasing intention of consumers in the three selected cities of Gujarat.

The sample size of this study was 600 persons from the three selected cities of Gujarat, i.e. Vadodara, Ahmedabad and Surat. The respondents were divided on the basis of occupation into three categories, namely:

- Service class
- Business class
- Professional class

Out of the total sample size, 40% samples were selected from service class and 30% each were selected from business and professional class.

4.2 DATA SOURCE

In order to analyse the purchasing intention of consumers, both sources i.e. primary source as well as secondary source have been used.

*Primary Source*

Data was collected from 200 respondents in each of the three cities, namely Vadodara, Ahmedabad and Surat. To collect 600 valid responses, 900 responses were collected in all.

*Secondary Source*

Data are also presented in this study from various journals and books on Marketing.

*Research Approach*

Data was collected from 600 respondents through structured questionnaire. For this purpose, 200 respondents were selected from each of the three cities.
4.3 RESEARCH TOOL

Initially, a pilot study was conducted to shortlist the two representative products. For this purpose a small questionnaire was designed containing ten products. 30 Respondents were asked to rank each product from 1 to 5 with 1 as the highest rank, with respect to the statements provided to them. Based on the responses, laptop was selected as high involvement product (Mean=2.36) and detergent as low involvement product (Mean=4.16).

Table 4.1: Table Showing Involvement Preference for Products in Vadodara

<table>
<thead>
<tr>
<th>Product</th>
<th>Mean Rank</th>
<th>S.D.</th>
<th>Product</th>
<th>Mean Rank</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptop</td>
<td>2.36</td>
<td>0.98</td>
<td>Talcum Powder</td>
<td>2.20</td>
<td>0.99</td>
</tr>
<tr>
<td>LCD/LED TV</td>
<td>2.44</td>
<td>0.97</td>
<td>Noodles</td>
<td>2.34</td>
<td>0.98</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>3.61</td>
<td>0.99</td>
<td>Detergent</td>
<td>4.16</td>
<td>0.97</td>
</tr>
<tr>
<td>Car</td>
<td>2.80</td>
<td>0.96</td>
<td>Deodorant</td>
<td>3.20</td>
<td>0.99</td>
</tr>
<tr>
<td>Air Conditioner</td>
<td>3.79</td>
<td>0.98</td>
<td>Tea/Coffee</td>
<td>3.02</td>
<td>0.98</td>
</tr>
</tbody>
</table>

After finalizing the two products representing high involvement category and low involvement category, another detailed structured questionnaire was prepared in order to collect information. The questionnaire was divided into four major parts as follows-

Part I

Personal information like name, address, age, occupation, family size, educational qualifications, gender, family type, marital status and income of the respondent was obtained. These factors were the independent factors in the study along with other factors.

Part II

Questions were asked in the form of statements to be rated on a Seven point Likert Scale to statistically find out consumers’ involvement in two representative products,
namely Laptop and Detergent. Statements were framed in line with the factors identified for determining high involvement or low consumer involvement.

**Part III**

This part of the questionnaire was designed to find consumers’ preference for a shopping situation namely physical store, internet (online shopping) and television (TV Shopping) for the two products mentioned above. Also, respondents were asked to provide reasons for their choice of shopping situation.

**Part IV**

In this part of the questionnaire, respondents were asked to give preference to payment mechanisms i.e. cash, credit/debit card and cheque for the two products. Again, they were also asked to rank the reasons for their preference.

**4.4 STATISTICAL METHODS**

For analysis purpose, following methods have been applied

- Mean Analysis
- Frequency distribution
- T-test
- ANOVA
- Chi Square

**4.5 DEFINITIONS**

**Region**

Data are presented for three cities of Gujarat, namely Vadodara, Ahmedabad and Surat. For this purpose, rural areas are not included. From each city a sample of 200 respondents were selected. As stratified random sampling was used, samples were selected belonging to service class, businessmen and professionals.
Age Group

Age group indicates the age of the respondent in the three selected cities. In this research, following age groups were used-

- 20 – 30 years
- 31 – 40 years
- 41 – 50 years
- 51 – 60 years
- Above 60 years

Occupation

*Service Class* - Salary earners, which includes government, semi government and private organisations’ employees

*Business Class* - All the people involved in trading and manufacturing activities and having exposure and access to television and internet.

*Professional Class* – Technically qualified persons like doctors, chartered accountants, company secretaries, consultants, architects who are self employed.

Income

Respondent’s income includes yearly income of all the members of his family and from all sources. The following income-groups have been used in this research.

- Less than Rs. 1 lac
- Rs. 1.01 lac – Rs. 2 lacs
- Rs. 2.01 lacs – Rs. 3 lacs
- Rs. 3.01 lacs – Rs. 4 lacs
- Rs. 4.01 lacs – Rs. 5 lacs
- Above Rs. 5 lacs

This research is a descriptive and analytical research wherein, an attempt was made to study statistically consumers’ purchasing intention for two different categories of
products. For this purpose, a sample of 600 was taken from the cities of Vadodara, Ahmedabad and Surat in the state of Gujarat. A sample of 200 was selected from each of the cities. Further, stratified convenient sampling technique was used. From each of the cities, samples were selected on the basis of their occupation, i.e. service, business and profession. It was decided to select approximately 40% samples from service occupation and 30% each from business and profession.

Care was taken in sampling that only those respondents who had access to internet and television were selected for survey.

The study was analyzed, considering relationship that was examined, on appropriate population, which was selected from Gujarat by taking into account the importance of the study in relevance to final goal of modeling the purchase intention which was routed through high involvement and low consumer involvement by synergizing payment mechanism along with shopping situation. Since the study can be examined only in city areas, the population size was located in the cities of Gujarat. Therefore, it was found suitable to select cities which were representative and would produce appropriate sample size in terms of time, cost and information while other academic aspects are taken into account.

The information on buyers in the population consists of professionals, business and salaried class. Detail characteristics of buyers can be examined by socioeconomic and demographic features. As far as methodology and estimation is concerned, use of descriptive and analytical statistics was made. To summarize-

- A sample size of 600 was selected for the purpose of this research from three cities in Gujarat i.e. Ahmedabad, Vadodara and Surat.
- For this purpose, stratified random sampling method was adopted.
- Primary data was collected in the form of questionnaires, surveys and personal interviews to test the hypotheses.
- From each city 200 respondents were selected as samples for which stratified random sampling technique was used.
- Within the sample size, the sample units comprise professionals, businessmen, salaried class and care was taken to consider those persons who are utilizing the facility of internet for online purchasing and also have the facility of TV.
• Sample units also comprise respondents belonging to different age groups and also different gender.

• Primary data collected was analyzed using statistical software for the purpose of studying the findings.

A total of 900 responses were obtained out of which 600 valid responses were considered for further analysis. To study the internal consistency and reliability of the data, Cronbach alpha was applied and following was observed.

**Table 4.2: Table Showing Test of Reliability of Data through Cronbach Alpha for Laptop and Detergent in the Selected Cities of Gujarat**

<table>
<thead>
<tr>
<th>City/Factor</th>
<th>Overall</th>
<th>Lap.</th>
<th>Det.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vadodara</td>
<td>0.94</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>Ahmedabad</td>
<td>0.86</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Surat</td>
<td>0.90</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>0.94</td>
<td>0.95</td>
<td></td>
</tr>
</tbody>
</table>

• From the above table, it can be observed that overall, the data was reliable and consistent. For Vadodara, the alpha value of 0.94 for Laptop and 0.95 value for Detergent suggests that the data was internally consistent and reliable.

• Same can be said about Ahmedabad and Surat where the alpha for both the representative products was above 0.85.

• Overall, an alpha value of 0.94 for Laptop and 0.95 for Detergent shows that the data is reliable and hence other statistical tests would give reliable results.
4.6 HYPOTHESIS

H1: Consumer involvement for laptop is same as that for detergent.

H2: Purchasing intention is independent of payment mechanism.

H2-1: Consumers’ purchasing intention would remain same when they pay by cash or through credit/debit card for high involvement product.

H2-2: Consumers’ purchasing intention would remain same when they pay by cash or through credit/debit card for low involvement product.

H2-3: Consumers’ purchasing intention would remain same when they pay by cash or through cheque for high involvement product.

H2-4: Consumers’ purchasing intention would remain same when they pay by cash or through cheque for low involvement product.

H2-5: Consumers’ purchasing intention would remain same when they pay by cheque or through credit/debit card for high involvement product.

H2-6: Consumers’ purchasing intention would remain same when they pay by cheque or through credit/debit card for low involvement product.

H3: Purchasing intention is independent of shopping situation.

H3-1: Consumers’ purchasing intention through internet (online shopping) would be same as when they shop through TV shopping for high involvement product.

H3-2: Consumers’ purchasing intention through internet (online shopping) would be same as when they shop through TV shopping for low involvement product.

H3-3: Consumers’ purchase intention through physical store would be same as they shop through the internet (online shopping) for high involvement product.
H3-4 : Consumers’ purchase intention through physical store would be same as they shop through the internet (online shopping) for low involvement product.

H3-5 : Consumers’ purchase intention through physical store would be same as when they shop through TV shopping for high involvement product.

H3-6 : Consumers’ purchase intention through physical store would be same as when they shop through TV shopping for low involvement product.