CHAPTER III
METHODOLOGY

The methodology adopted for evaluation of the objectives of the present study is described under following heading.

3.1 Location & Area of the study
3.2 Sampling technique and sample size
3.3 Type of data
3.4 Statistical analysis

3.1 LOCATION OF STUDY
Patson Food Private Limited (PFIL) is situated in area between Surat and Navsari. Thus, the area of study was Surat city in Gujarat and was selected purposively. Surat City’s total area is 4,418 km². It is a port city as well as is situated on the band of river Tapi. The geographical location of Surat is 21° 15’ North (Latitude) and 72° 52’ East (Longitude). It is second highest populated city in Gujarat after Ahmedabad. According to census 2011, Surat district has a population of 60,79,231.

Fig 3.1 Map of Surat city
3.2 SAMPLING TECHNIQUE AND SAMPLE SIZE

Consumers were interviewed face-to-face. A well prepared questionnaire was filled by interlocution with consumers buying or consuming referred processed food product having brand name Rasanand (pickle and mango pulp) and Tastom (tomato) sauce. The random sampling method was used to collect the required data, information or feedback. Overall sample was of 100 consumers.

3.3 TYPE OF DATA

3.3.1 Primary Data

Primary data was collected through personal interviews. An open end questionnaire was prepared to understand the impact of packaging elements, advertisement on buying behaviour of consumers and affluent consumers in market.

3.3.2 Secondary Data

The secondary data and other relevant information for the study were gathered from reference book, bulletins journals and articles published by authors, organizations and agencies. Data was also collected from published reports and government annual reports published on their website. (Anon, 2017 a).
3.4 STATISTICAL ANALYSIS

➢ Tabular analysis

Tabular analysis, in its most general forms and includes any analysis that uses tables, in other words, almost any form of quantitative analysis. It has many different forms, but the most simple and easy to use is subgroup analysis, which is the mainstay of research reports dealing with categorical data.

➢ Likert scale

Likert scale is a psychometric scale used to scale the responses of the consumers. It was used to give quantitative value on subjective or objective dimensions, with various levels between agreement and disagreement. Five ordered response level were used. The weights for the respondent’s choices were then summed across all statements.

➢ Chi-Square

The chi-square test was used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories. It was used to test whether a set of observed values are in agreement with those which would occur if some specified hypothesis were true.

\[ \chi^2 = \sum \frac{(O - E)^2}{E} \]

Where,

\[ O = \text{observed value} \]

\[ E = \text{expected value}. \]

Value of chi-square is derived from contingency table by calculating using following formula:

\[ \text{df} = (r-1) \times (c-1) \]

Where, \( r = \text{row} \)
c = column

3.4.1 To Study Socio-Economic Profile of Consumers.

The socio-economic factors like age, gender, education, marital status, family nature, family income, occupation, participation in institution/organisation, location and community or caste were studied and evaluated by using tabular method to know the segment from which consumer belongs in market.

3.4.2 To Study the Impact of Aesthetic Packaging Elements on Consumer’s Buying Behavior.

The influence of outer appearance of packaging like colour, design, printed information, typography, innovation, language used, brand name, size of packaging, font style, material used and shape of package on buying behaviour of consumers. Five ordered level used as strongly agree, moderately agree, weakly disagree, strongly disagree and undecided.

3.4.3 To Identify the Factors for Affluent Consumers of Processed Food Product.

Affluent consumers are those consumer who are willing to pay a little more or sometimes premium for convenience, appearance, dependability and prestige of better packaging. Primary data were collected by questionnaire. This data was further compiled in tabular form for easy comprehension.

3.4.4 To Study Influence of Advertisement in Buying Behavior of Consumer.

Chi-square was used to know the scalability of advertisement on men and women for their buying behavior. Group was of men and women and category included strong or weak influence. Strong influence counted when the consumers agreed with the influence of advertisement and vice-versa. The data and required information was collected through open end questionnaire and evaluated with chi-square method.