CHAPTER III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter is organized into three parts. The first part discusses the research statement: namely the research problem, objectives, significance and scope of the study. The second part provides an overview of data base design, measurement design, sample design, variable identification, framing hypothesis, statistical tools used in the analysis, data analysis, analysis procedure and composition of the sample. The third part deals with the limitation of the study.

3.2 THE RESEARCH STATEMENT

In developed countries, private label account for the lion share of the sales in MTOs. It is estimated that private label account for 30% to 50% of the total sales in large format retail outlet. The private labels have significant socio-economic impact. Much of the private label products are manufactured by small and medium enterprises and these are supplied directly to large retail chains at relatively low price. The low price is by and large transferred to the customers. The private label products strategy thus offers the economic benefit of developing the SME sector and offering lower prices to the consumers. The retailer realises relatively more margin from PLs as well.

3.2.1 THE RESEARCH PROBLEM

However, in Indian retailing, PLs have not made significant headway. The present study addresses issues related to slow pace of development of PLs, the perception,
consumption of PLs by shoppers and suggest a successful marketing strategy for marketing PLs in order to fasten the development of store brands.

3.2.2 OBJECTIVE OF THE STUDY

The objective of the study is grouped into broad objectives and specific objectives. The broad objectives are long-term in nature. The specific objectives are short term and narrow in focus. The broad objective is met through accomplishing each of the specific objectives.

BROAD OBJECTIVES

- To analyse the consumption pattern of private labels in the organized retail sector in Kerala.
- To examine the consumer perception of shoppers with reference to private label.
- To evaluate the marketing strategies adopted by the retailers with respect to private labels.
- Finally the study is aimed to develop a marketing model for the retail sector in Kerala in order to successfully market the private label product.

SPECIFIC OBJECTIVES

- To analyse how far shoppers are aware of PL in Grocery and FMCG and examine whether national brands are superior to private labels in terms of quality and price.
- To find out the category wise monthly spending of consumers in private labels in Grocery and FMCG and the packet size the shoppers normally prefer in Grocery and FMCG.
To analyse the preference among customers in PL in Grocery and FMCG.

To analyse the consumer perception and consumption pattern of male and female with respect to PL.

To examine the consumption pattern of PL under different age groups and rating of private label products.

To find out the impact of place of living in shaping the consumer perception and consumption pattern of PL.

To analyse the role of occupation of buyers with respect to their consumption pattern of private label.

To study the impact of monthly income in the consumption pattern of private label.

To analyse how store location is important in shaping the marketing strategy for the sale of PL.

To study how consumer perception (product feature and store feature) is vital in attracting the customers to PL products.

To identify various parameters responsible for generating more sales in Grocery and FMCG.
3.2.3 SIGNIFICANCE OF THE STUDY

In the era of retail revolution and opening up of retail sector in single brand and multi-brand to foreign players, a new window of opportunity has opened for the organized retail players to widen their operations in India. The organized retail chains, especially the ‘Daily Stores are a new trend in the state of Kerala. Being new, limited studies have only taken place in Kerala with regard to organized chains across various spectrums. So the present study will be an eye opener for all the stakeholders of modern retail outlets in framing a marketing strategy to market the private label products and to examine the role of perception in shaping the consumption pattern of consumers. Apart from that, at the initial stages of PL, the consumers felt that it is inferior to NBs in terms of quality, labelling, packing, quantity and price. But over a period of time the situation has been changed and now PLs are par with NB’s at least in selected chains and selected product categories. So the scope of private label is going high. Moreover, leading market research organizations predict that, the private label will be growing at an astonishing rate in the coming years in Kerala.

3.2.4 SCOPE OF THE STUDY

The study covers major organized retail supermarket formats in Kerala. Within the supermarket format, the study is limited to Daily Stores. To qualify as a Daily Store, the bare minimum requirement of the store is, it shall be of 1500 to 2500 square feet, average daily sales-above Rs.80000,average no of employees-15, usual working hours 7:30 am to 11:59 pm, daily walkings-250 customers, total number of inventories- 3500 to 4000, billing-mechanised, focus will be fruits and vegetables. Apart from that, the other criteria employed with regard to the selection of retail chain are its presence across
Kerala. It has been identified that More, Spencer and Reliance Fresh are working in Daily Supermarket Format model(Daily Store) and present across the state of Kerala.

The presence of private label in Daily Supermarket Format in organized retail chain is limited certain categories such as FMCG, Grocery, Home Appliances and Consumer Durables. Of this PL is more popular in FMCG and Grocery. It is because of this reason FMCG and Grocery have been selected for the present research.

The PL brands within the Grocery and FMCG that comes under the purview of the study is as follows.

**Table 3.2.4.1 Represent the Various Items Comes Under Grocery**

<table>
<thead>
<tr>
<th>Grocery</th>
<th>Stock Category 1</th>
<th>Stock Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flour</strong></td>
<td>Wheat</td>
<td>Maida</td>
</tr>
<tr>
<td><strong>Spices</strong></td>
<td>Turmeric</td>
<td>Chilli Powder</td>
</tr>
<tr>
<td><strong>Staples</strong></td>
<td>Rice</td>
<td>Chena</td>
</tr>
<tr>
<td><strong>Sooji Rava</strong></td>
<td>Coriander</td>
<td>Green Mong</td>
</tr>
<tr>
<td><strong>Gram Flour Besan</strong></td>
<td>Pepper Power</td>
<td>Green Piece</td>
</tr>
<tr>
<td></td>
<td>Fenugreek</td>
<td>Toor Dal</td>
</tr>
<tr>
<td></td>
<td>Cumin</td>
<td></td>
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<tr>
<td></td>
<td>Cashew</td>
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<tr>
<td></td>
<td>Kismis</td>
<td></td>
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</tbody>
</table>
Table 3.2.4.2 Represent the Various Items Comes Under FMCG

<table>
<thead>
<tr>
<th>FMCG</th>
<th>Personal Care</th>
<th>Home Care</th>
<th>Processed Food</th>
<th>Beverages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care</td>
<td>Deodorant</td>
<td>Washing Soap</td>
<td>Jam</td>
<td>Carbonated Drink</td>
</tr>
<tr>
<td>Home Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processed Food</td>
<td>Soap</td>
<td>Washing Powder</td>
<td>Pickles</td>
<td>Fruit Drink</td>
</tr>
<tr>
<td>Beverages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Aditya Birla Retail Limited is the retail division of Aditya Birla Group, a USD 28 billion Corporation. The Company ventured into Food and Grocery retail sector in 2007 with the acquisition of a south based supermarket chain. With a vision is to be among the leading retail players in India, Aditya Birla Retail launched its first supermarket, More in May, 2007. Ever since its launch, the More has a hostile roll out, reaching a total count of over 575 stores across India today. It extends across a wide range of products of Food and non Food items. With a range of over 4,000 products, the store is able to fulfil the daily shopping needs of all under one roof, at convenient locations. The More provides customers an extensive choice of products under its own brand. The aim is to provide

**Period of research:** The primary data from customers and experts are collected from April 02, 2012 to September 18, 2012. The data collection, carried out at the at the exit gate of Daily Supermarket formats, such as More, Spencer and Reliance Fresh is performed during the morning and evening where respondents are willing to respond. More over the profile of selected chains such as More, Spencer and Reliance Fresh is as follows:

**Aditya Birla Retail Limited** is the retail division of Aditya Birla Group, a USD 28 billion Corporation. The Company ventured into Food and Grocery retail sector in 2007 with the acquisition of a south based supermarket chain. With a vision is to be among the leading retail players in India, Aditya Birla Retail launched its first supermarket, More in May, 2007. Ever since its launch, the More has a hostile roll out, reaching a total count of over 575 stores across India today. It extends across a wide range of products of Food and non Food items. With a range of over 4,000 products, the store is able to fulfil the daily shopping needs of all under one roof, at convenient locations. The More provides customers an extensive choice of products under its own brand. The aim is to provide
quality products at attractive price points to customers. Since quality of the products is of prime importance, stringent quality norms have been set and are followed. All manufacturing partners are the best in their class. ‘More’ offers a wide range of PL products.

**Spencer's Retail** is the subsidiary of RPG group, is one of India's growing retail stores with multiple formats, retailing food, apparel, fashion, electronics, lifestyle products and books. It is owned by the RPG Group, a major business house. The Spencer's began operations as a retail chain in the early 90's in Southern India. The stores are largely setup in two formats, the convenience stores, called Spencer’s and hypermarkets, called Spencer’s Hyper. Spencer's are offering an extensive assortment of private brand products, which encompasses both Foods as well as non-Food items.

**Reliance Retail**, the 100% subsidiary of Reliance Industries, on October 28 unveiled Reliance Fresh, the first of its multi-format retail incursion involving an investment of Rs 25,000 crore. The Reliance Fresh is the company’s brand for neighbourhood Fresh-Food outlets. The strategy is to open one Reliance Fresh store in a radius of three to four km to serve 1,000-2,000 families. It means about 30-40 stores in major metros. At the initial stage RRL wanted the Reliance Fresh format to confine to a pure-play fruits and vegetables retailing operation. But it changed the format. It is difficult to run a pure-play Fruits and Vegetables retailing operation in India in a cost effective manner. In fact, tackling Fruits and Vegetables is the most difficult part of organized retail. The Reliance Fresh the farm-to-work network and the Food and Grocery arm of Reliance Retail is the first of four retail formats of Reliance to reach the market. The stores in this format sell Vegetables, Fruits and Groceries. The Reliance Fresh to an extent is a discount chain but cannot be compared with Subhiksha or Pantaloon. It offers 15-20% discount on select daily use items. The Reliance Fresh claims
that the low pricing is a part of its strategy and its sourcing model and supply chain arrangement help keep purchase low. The Reliance Fresh stores represent the front-end of RILs farm-to-fork project that involve other activities like procuring farm products through agri-hubs, establishing a supply chain and building and providing logistic support and the stores having 2000 sq ft range space. The Reliance having two private label brands under the Reliance banner—Reliance Value and Reliance Select.

Fig. 3.2.4.1 A Snap-Shot of the Present Research

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**Classification of Retail Formats**

- **Store Based Retailing**
  - Form of Ownership: Independent retailer, Chain Retailer, Franchise, Leased departments, Consumer cooperatives
  - Merchandise Offered: Convenience stores, Supermarkets, Hypermarkets, Specialty Stores, Departmental stores, Off price retailers, Factory outlets, Catalogue showrooms

- **Non-Store Retailing**
  - Direct selling, Mail order, Telemarketing, Automated Vending

- **Service Retailing**
  - Banks, Car Rentals, Service Contracts, Providers of Various services

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**SUPER MARKETS**

- **Daily Stores**
  - More, Spencer, Reliance-Fresh, PL

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**MERCHANDISE OFFERED**

- **FMCG**
  - Personal Care
  - Home Care
  - Processed Food
  - Beverages

- **Grocery**
  - Flour
  - Spices
  - Staples
3.3 RESEARCH DESIGN

The research design is a framework or blueprint for conducting the research projects. It details the procedure for obtaining the information needed to structure and solve the research problem. It includes an outline of what the investigator will do from writing the hypothesis and their operational implication to the final analysis of the data. The applied research design of the present research is descriptive in nature, since the present study aims at answering ‘what’, ‘why’, ‘where’ and ‘how’ of the current state of private label.

3.3.1 DATA BASE DESIGN

The present study rests on primary data. The primary data have been collected through two sample surveys. The first sample survey involves the study on consumption and perception of customers who visits the stores. The second survey is conducted among experts. The respondents in this category are sales staff and other employees of selected outlets.

Two pre-tested schedules are used to collect the data from customers and experts. Based on the predefined quotas, the research endeavored to obtain a sample which was somewhat representative of supermarket shoppers and experts in the state of Kerala. The schedule is formed with the help of variables identified from previous studies and also the views of experts in the field.

The schedule for customers is used for finding out the consumption pattern and consumer perception. The schedule of customers consist of three parts, Part A, Part B and Part C. The first part deals with demographic and geographic factors such as age, gender,
place of living, education, occupation, monthly income, marital status and size of the family. The part B of the schedule consists of questions to analyse the consumption pattern and Part C of the schedule for finding out the consumer perception. The respondents selected for the study were screened with a criterion of having shopping experience of at least one year from organized retail stores, idea of private label products and at least 18 years old. This is the age one is definitely shopping for oneself in India.

The second schedule is to evaluate the marketing strategies adopted by the retailers with respect to private labels. The schedule of experts consist of three parts, Part A, Part B Part C. The first part deals with work experience, store location and designation of the store staff. The part B of the schedule consists of questions which will help to promote and generate more sales for private labels. The part C consist of questions on availability of private label product in Grocery and FMCG, in store product communication(in store promotion) and value added service to help to frame a marketing model for the effective sales of private label products. Apart from the primary data the secondary data for the research is collected from government records, other official records, journals, text books and internet portals.

3.3.2 MEASUREMENT DESIGN

The Nominal, Ordinal, Interval and Ratio scales are used depending on the type of data collected. The most extensively used scale in the present research is Likert scale. This helped a lot in the collection of data from the two respondent categories such as customers and experts. Further the use of various scaling techniques enabled the use of a wide range of statistical tools and hence the development and testing of Structural Equation Models.
3.3.3 SAMPLING DESIGN

All the items under consideration in any field of an inquiry constitute a ‘universe’ or ‘population’. The selection of few items from the universe for study purpose is technically called a sample. In other words, a sample design is a definite plan determined before any data are actually collected for obtaining a sample from a given population. In the present research convenient sampling technique is used.

**Pilot study:** A pilot study is conducted before the actual study took place. The pilot study was undertaken at Ernakulum by using two set of schedules, one for customers and the other experts. After the analysis of the result of the pilot study, necessary changes are made in the schedules.

**Determination of sample size of customers:** From the pilot study of 50 sample size, it is decided to frame the sample size of customers to 755. The calculation is as follows:

\[ n = \left( \frac{ZS}{E} \right)^2 \]

Where

\[ Z = \text{standardized value corresponding to a confidence level of } 95\% = 1.96 \]

\[ S = \text{Sample SD from the Pilot study of 50 sample} = 0.701 \]

\[ E = \text{Acceptable error} = 5\% = 0.05 \]

Hence, \[ n = \left( \frac{1.96 \times 0.701}{0.05} \right)^2 \]
\[ = 755.106 \]
\[ = 755 \]
The sample size of 755 respondents (customers) is used to analyze the consumer perception and consumption pattern of private labels in Kerala.

**Determination of sample size of experts:** Like the pilot study of consumers, a pilot study is conducted among experts at Ernakulam before the actual study took place. From the pilot study of sample size of 29, it is decided to frame the sample size of experts to 258. The calculation is as follows:

Sample size \( n = \left( \frac{ZS}{E} \right)^2 \)

Where

\( Z = \) Standardized value corresponding to a confidence level of 95\% = 1.96

\( S = \) Sample SD from the Pilot study of 29 sample = 0.410

\( E = \) Acceptable error = 5\% = 0.05

Hence, 

\[
\text{Sample size} = n = \left( \frac{ZS}{E} \right)^2 \\
= (1.96 \times 0.410/0.05)^2 \\
= 258.309 \\
= 258
\]

The sample sizes of 258 experts are employed to evaluate the marketing strategies adopted by the retailers with respect to private labels. The expert group consists of junior level, middle level and top level employees of the organized chains.

**3.3.4 IDENTIFICATION OF VARIABLES**

Based on the review of literature, the dependant and independent variables are identified for the study and the hypothesis is framed based on this variables. The variables are listed as follows:
Variables of the study

The consumption pattern of PL is studied in terms of two dependent variables and seven independent variables.

The dependent variables are as follows:

- **DV<sub>1</sub>**-Volume purchased per occasion
- **DV<sub>2</sub>**-Frequency of purchase

The independent variables are as follows:

- **IV<sub>1</sub>**-Place of living
- **IV<sub>2</sub>**-Age
- **IV<sub>3</sub>**-Occupation
- **IV<sub>4</sub>**-Monthly income
- **IV<sub>5</sub>**-Education
- **IV<sub>6</sub>**-Size of the family
- **IV<sub>7</sub>**-Shopping time

The consumer perception of private labels can be studied with the help of three dependent variables and thirteen independent variables.

- **DV<sub>3</sub>**-Product features
- **IV<sub>8</sub>**-Brand awareness
- **IV<sub>9</sub>**-Perceived quality
- **IV<sub>10</sub>**-Packaing
- **IV<sub>11</sub>**-Labeling
- **IV<sub>12</sub>**-Value for money
The third objective marketing strategy can be studied with the help of four dependent variables and twenty independent variables.

- DV4-Store features
- IV13-Store image
- IV14-Store location
- IV15-Physical environment
- IV16-Service level
- IV17-Store layout
- DV5-In store promotion
- IV18-Price discounts
- IV19-Shelf display
- IV20-POP

- DV6-Product
- IV21-Product variety
- IV22-SKUs
- IV23-Brand awareness
- IV24-Brand image
- IV25-Perceived quality
- IV26-Packaging
✓ DV7-Price
❖ IV27-Value for money
❖ IV28-Multiple unit pricing
❖ IV29-EDLP
❖ IV30-Hi-LP
✓ DV8-Place
❖ IV31-Location
❖ IV32-Number of competitors
❖ IV33-Size of competition
✓ DV9-Promotion
❖ DV34-Shelf space
❖ DV35-POP
❖ DV36-Visibility
❖ DV37-Endorsement
❖ DV38-Discount (Price and Quantity)
❖ DV39-Coupons
❖ DV40-Loyalty Programmes

3.2.5 HYPOTHESIS

After an extensive literature survey, the variables such as dependent and independent variables are identified which are relevant and significant to the scope and objective of the study and based on that, the hypothesis have been framed. The
hypothesis is specific and limited to the piece of research as they have to be tested. The total number of hypothesis framed in the present research is fifteen and are as follows:

Null Hypothesis: There is no significant difference between male and female customers with respect to the dimension of consumer perception.

Null Hypothesis: There is no significant difference between male and female customers with respect to consumption pattern of Grocery and FMCG.

Null Hypothesis: There is no significant difference between age groups with respect to the consumption pattern of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between place of living with respect to consumer perception of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between place of living of buyers with respect to their consumption pattern of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between occupation of buyers with respect to their consumption pattern of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between monthly income with respect to consumption pattern of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between store locations with respect to marketing strategy.

Null Hypothesis: There is no association between age and rating of private label purchase in Grocery and FMCG.
Null Hypothesis: There is no association between place of living and rating of private label purchase in Grocery and FMCG.

Null Hypothesis: There is no significant difference between mean rank towards product feature of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between mean rank towards store feature of private label in Grocery and FMCG.

Null Hypothesis: There is no significant difference between mean ranks with respect to relative importance of PL in generating sales.

Null Hypothesis: There is no significant difference between mean ranks in order to improve the sales of Grocery in private label.

Null Hypothesis: There is no significant difference between mean ranks with respect to improving the sales of FMCG in private label.

3.3.6 STATISTICAL DESIGN: STATISTICAL TOOLS USED IN THE ANALYSIS

The various statistical tools used in the present research for testing the hypothesis are t-test, ANOVA, Chi-square, Duncan's Multiple Range test, Friedman test, Correlation and Regression. At the end of the research two structural equation models are developed.

3.3.7 DATA ANALYSIS

On conclusion of the survey, the 755 customer schedules and 258 expert schedules are fully analyzed. A preliminary check is done in the field to identify and remedy any inconsistencies, omissions or obvious mistakes with the schedule completion. Another check is made to alleviate less glaring errors. The data from the schedules are then captured, cleaned, coded and analyzed with SPSS. Finally the data is tested for
normality and this is confined to be in order. It is found that in the SPSS, there is less than 0.5 per cent missing values which are replaced with mean values and subsequent to that, analysis is conducted.

3.3.8 ANALYSIS PROCEDURE

The data is analyzed using statistical package for social science (SPSS V 17.0). Descriptive statistics such as mean and standard deviation are generated to provide an overview of the data. Frequency distribution is used to describe the age group, gender, place of living, educational qualification, occupation, monthly income, marital status, number of members in the family, number of times a customer visits the organized retail store, number of minutes spend by the customer at the store, preference of private label products, rating of private label products, comparison between national brands and private brands, category wise monthly spending in Grocery and FMCG, the packet size that normally prefer among Grocery and FMCG, experience of store staff, designation of store staff and store location.

The Mean and Standard deviation are generated for analyzing the ranking preference among Grocery and FMCG, various parameters of product feature, store feature, in-store promotion, the factors responsible for the success and generating more sales for private label, attributes of private label products based on the relative importance in generating sales and various parameters to improve the sales of Grocery and FMCG.

Furthermore the statistical tools such as; t test is used for analysing the significant difference between male and female with respect to consumer perception and consumption pattern, the ANOVA for significant difference between age groups with respect to consumption pattern, place of living with respect to consumer perception and
consumption pattern, occupation of buyers with respect to consumption pattern, monthly incomes with respect to consumer consumption and store location with respect marketing strategy, the Chi-square test is used for finding out the association between age group and rating of private label purchase, place of living and rating of private label purchase. The Friedman test is applied for significant difference between mean ranks towards product feature, store feature and private label importance in generating sales of Grocery and FMCG. The Correlations is used for finding out the impact of four P’s of marketing in generating PL sales. The regression analysis is used to examine the consumption and consumer perception of Grocery, FMCG, the rating of private label products after its purchase with respect to personal information and details of store visit, overall consumption of Grocery with respect to personal information and details of store visit, overall consumption of FMCG with respect to personal information and details of store visit.

At the end of the analysis, two structural equation models are developed, the first showcases the way in which consumer perception leads to consumption pattern and consumption pattern leads to satisfaction and purchase of private label products. The second structural equation model helps the MTOs to successfully develop a marketing model for private label products.

3.3.9 COMPOSITION OF THE SAMPLE

The sample is deemed to be somewhat representative of the urban and rural shoppers who are visiting the supermarkets in the state of Kerala. In terms of gender, 61.9% are female respondents while 38.1% respondents are male. The majority of the shoppers (52.1%) belongs to the age group below 30 years followed by 34.7 % of the respondents in the age group of 30-45 and 13.2 % are in the age group of above 45. The
majority of the consumers visiting the Daily Stores are in the income group of 10001-20000 and 20001-40000. On the educational front, 45.6 % are graduates while 19.3 % completed H.Sc. In the occupation front, the salaried 41.1 % is far ahead of others. The majority of the respondents spoke in the mother tongue, Malayalam and the minority in English and Hindi.

3.4 LIMITATIONS

The various limitations of the study are as follows:

1) The study covers only major organized retail chains in Kerala such as More, Spencer and Reliance Fresh.

2) The concept of private label is relatively new to the people of Kerala. So there is difficulty for the respondents to comprehend the concept.

3) The sample size of 755 consumers and 258 experts is small in order to get more accurate and precise information, so it should be more.

4) Some of the respondent’s (consumers and experts) not responding freely due to time constraint.

5) It is not a representation of all the retail consumers in Grocery and FMCG segment.

6) It does not cover all the aspects of PLB strategies in the Grocery and FMCG since the segment and Indian market is diverse.

7) There is probability of biased response from the stake holders.