Chapter 4 : Research Methodology

4.1 Introduction

This chapter discusses the entire process followed during the course of this study. The chapter contains the problem definition, the approach which was followed and the research design deployed for the study. The chapter provides a comprehensive sketch of the research methods which were used, including measurement scales design and development, structuring and design of questionnaire, collection of data and size of sample. The section which deals with data collection gives details on how, where and when the data was collected for this study. The survey instrument section delineates how each construct in the proposed model was measured carefully. The section which deals with data analysis describes the methodology used to examine hypotheses and results. Additional sections explain the “treatment and analysis” of the data which were used in the present study.

4.2 Specific Objectives of the study

The present study has been planned to:

1. Comprehend the present retailing scenario of private labels (PLs) and national brands (NBs) in men’s apparel category;
2. Analyze the consumer’s preferential behavior and satisfaction derived thereof from PLs and NBs;
3. Find-out the specific attributes on which consumer purchases both PLs and NBs;
4. Examine the inter-relations amongst the PLs, store image, and loyalty;
   and
5. Measure the impact of externalities along with the demographic variables on consumer’s attitude towards PLs and NBs men’s apparel category.

4.3 Defining the Problem

As explained in the earlier chapters, the broad need for the study originated after going through various industry reports on the state of retailing in India, situation analysis of apparel retailing, and growth of private labels. Further clarification on the direction of the research was obtained after discussion with experts on the subject of retail development. Extensive literature review was undertaken, as reported in Chapter 3, to clearly identify
the dimensions of the problem and the way to approach the study. All of these steps clearly unveiled the environment context of the study. The researcher was able to clearly define the problem statements, and the objectives as reported in Section 3.14. A number of consumer, product and store level constructs were shortlisted for investigation in the present study. These constructs include consumers buying characteristics, consumer preference, satisfaction and loyalty determinants of consumers’ attitudes towards private labels and national brands and store images. In addition, it was thought prudent to investigate the influence of demographic characteristics on consumer preferences for private labels in men’s apparel category.

4.3.1 Research Approach

Since the objective was to identify the determinants of choice behaviour of consumers towards private labels and national brands and also try to find the differentiating variables between these two categories, it was decided to use the graphical Howard-Sheth Model as the theoretical base to understand consumer buying behavior. This model presents a comprehensive picture of consumer decision making and helps to understand the processes and variables which influence the buying behavior before and during the purchase. The model also attempts to explain brand choice behavior of the consumers.

As informed in Chapter 3, the basic structure of Howard-Sheth Model consists of four major sets of constructs.
• Inputs
• Perceptual and Learning constructs
• Outputs
• Exogenous variables

The AIDA Model has also been used for this study. It was used to understand as to how marketing communications influence the consumer buying process. The private labels are new exciting and sustainable business opportunity for leading apparel retailer in India. This study intends to map the consumers’ purchase decision of private labels and national brands in men’s apparel. For this purpose, AIDA model is a simple tool to understand what attracts consumers’ attention, creates interest, stimulates desires and motivates for purchase action.

4.3.2 Research Questions

Looking at the objectives of the study, there were several research questions which needed to be addressed. These are:

• RQ1. What is the share of private labels vs. national brands in the men’s apparel category in India?
• RQ2. What is the level of awareness about private labels in men’s apparel category?
• RQ3. What are the major sources of awareness about private labels?
• RQ4: What are the major influencers in selection of categories of men’s apparels?
• RQ5: Does preference of store have an influence on preference of private label of that store?
• RQ6: What are the variables which influence preference of a store?
• RQ7: What are the variables which influence preference of private labels or national brands?
• RQ8: What are the variables which influence satisfaction towards private labels or national brands?
• RQ9: What are the variables which influence loyalty for private labels or national brands?
• RQ10: Are there any demographic variables which impact the preference of private labels or national brands?
4.3.3 Development of Hypotheses

To answer the research questions, the following hypotheses (alternate) relating to preference of private label and national brands and the association between store image and private label attitude, loyalty between private label and national brands; satisfaction level between private labels and national brands were created and tested:

(i)  Ha1: There is a significant difference between the market share of national brands and private labels in men’s apparel category.

(ii) Ha2: There is a significant difference between the awareness of national brands and private labels in men’s apparel category.

(iii) Ha3: There is a significant difference in sources of influence on consumer behaviour while choosing between national brands and private labels in men’s apparel category.

(iv) Ha4: There is a strong association in the preference of retail store because of its image and the preference of private labels in men’s apparel category.

(v)  Ha5: There is a significant difference between consumer satisfaction attached to private labels and national brands.

(vi) Ha6: The customers show significant difference in loyalty towards national brands or private labels in men’s apparel category.

(vii) Ha7: There is a significant difference in satisfaction from private labels and national brands in men’s apparel category due to various demographic variables of consumers.

The rationale behind developing a particular hypothesis is to examine the pertinent situation prevailing in this region for the present study. It is believed that stores usually try to capture consumers’ share of wallet and share of minds by positioning themselves differently in consumers’ minds. Retailers give utmost importance to the customer preference of stores, choice of private labels and national brands. Testing of hypothesis helped to understand level of preferences of differences on specific attributes and benefits among the stores which ultimately drive consumers to particular stores.

4.4 Research Design

In consonance with the objectives, the present study employs an exploratory as well as descriptive research design. An in depth analysis of the information gathered and the
previous research conducted has been carried out. The study has undertaken an extensive research on both primary and secondary level. Both qualitative and quantitative research approaches were adopted.

The qualitative research method is ideal to get the inclusive narrative and description of respondents’ personal experiences and ideas on the consumption of men’s apparel. Since this study attempts to investigate the motives and cognitive structures of purchasing private labels or national brands in men’s apparel category, qualitative research was used at the exploratory study level so as to clearly identify the various variables which create preference, satisfaction and loyalty towards various categories of men’s apparel in the minds of consumer. Questionnaire was designed on the basis of the information obtained through qualitative research which consequently helped in quantitative research and collecting a diverse set of responses. The quantitative research has been conducted through a structured questionnaire which helped to collect appropriate data.

The prime motive of the research, as described earlier, was to examine the constructs what influences consumers’ buying decisions in purchasing national brands and private labels in men’s apparel category in the NCR Region of Delhi. The main constructs which had been studied are consumers’ perceptions, preference, store image, satisfaction, loyalty and attitudes towards private labels and national brands.

The later part of the study is comprised of descriptive research design. Research data was collected by using structure questionnaire. Before finalizing the questionnaire a pilot study was conducted to identify the variables which influence the customers to buy various types of apparels. A large number of variables were selected through literature review and discussions with the retail experts. After extensive discussions, main variables were selected and incorporated in the questionnaire to get consumers insights.

Four leading apparel retail chains Pantaloon, Shoppers’ Stops, Westside and Lifestyles have been chosen for this study. These retail chains vary significantly in features such as the size, interior and exterior design, the wide-ranging products assortment, designs, styles, brand ambassador, promotional activities and marketing communications strategies.
Cross-sectional design was used to survey the respondents. Sample was selected from NCR which includes Delhi, Noida, Ghaziabad, Faridabad and Gurgaon because this part in country has the highest organized retail growth (Knigh Frank Research). This can be observed due to continued growth and development of malls culture and acceptance by majority of shoppers. In NCR, the leading retail chains like Reliance Trends, Big Bazaar, Pantaloon, Shoppers Stops, Westside, Max, Globus, lifestyles, Vishal are easily accessible by the shoppers.

4.4.1 Survey Tool

The present study is primarily based on the structured questionnaire method where researcher has adopted more of the participatory method in collecting the experiences/opinions/perceptions towards the responses to the questions covered in the questionnaire.

4.5 Questionnaire Design

Formulation of the precise questionnaire was the main activity. The pilot study helped to check the validation of appropriate questions to frame final questionnaire. The variables gathered from the literature review (specifically Howard-Seth model) and the exploratory studies have been used for forming questions in the questionnaire.

The questionnaires began with introducing the participants to the topic as well as objectives of the research. Brief introduction of private label and national brands were given to the respondents in order to get correct responses from them. The actual survey was started by asking for general shopping behaviour information of the respondents such as preferred shopping location, sources of information and major influencers etc. Only then the main questions were asked. The questionnaire had three sections and consisted of 19 questions.

The first section tries to explore the occasion when consumers generally buy apparel, segment mostly bought , knowing the top of the mind national brands, source of information for apparel purchase, influencers for the purchase, preferred places to buy from, and reason for buying from particular place to examine actual purchase.
In the second section, respondents were surveyed for their awareness about private labels and national brands, their preference regarding private labels and national brands, stores preference and choice, quantum of purchase of private labels and national brands, to indicate their percentage spend at different stores, factors influencing their purchase and their ranking to know which factors are more important. They were also asked to indicate the level of their satisfactions and loyalty regarding product as well as stores.

The final section of the questionnaire seeks information related to demographic profile of respondents to ascertain whether there are any considerable preference levels on the basis of consumer demographics for store choice, and brand selections etc. among various segments of shoppers in different stores.

Attributes have been selected based on a review of national and international literature as well the pilot study. Effort has been made to bring major important attributes relating to marketing mix, consumers’ psychographics and brand under the purview of this study.

### 4.6 Development of Scales

Likert scales are usually applied in measuring personality, perception, satisfaction, loyalty, social and psychological attitudes. This research uses the variables which were identified during the literature review and the exploratory study. Consumers’ preferences, satisfaction, loyalty and store image have been assessed with the help of Likert scale.

A five-point Likert scale like (1=very important to 5=least important, 1=strongly satisfied to 5= least satisfied and 1 definitely loyal to 5 = least loyal etc.) has been used to measure responses.

A large number of variables were selected through literature review and discussions with the retail experts. The construct and content validity was established through experts’ opinion. After extensive discussions, main variables were selected and incorporated in the questionnaire to get consumers insights. Before finalizing the questionnaire for the main survey, a pilot survey was conducted to identify the factors which influence the customers to buy various types of apparels. The errors caused in understanding of the questions due to language were rectified and only then an error-free scale was finalized. Thus the face validity of the scale was also established.
4.7 Pre-testing of Questionnaire

The motive of pre-testing the questionnaire was to attain appropriate order and flow of questions, its understanding and aptness of measurement scales. It is critical in conducting the research project successfully. It helped to restructure some of the questions and their nuances.

A preliminary questionnaire consisting of 30 variables was developed by going through the review of literature and by discussing with retailers and customers. To identify the important attributes, the questionnaire was pre-tested personally interviewing 67 respondents in different locations in Delhi. The researcher was personally involved in the pre-testing exercises. The detailed structure of the questionnaire was thoroughly discussed with the research guide. Several respondents gave valuable inputs to improve the draft of the questionnaire. As a result the questionnaire layout was tailored for smooth usage. Customers from various retail chains like Pantaloon, shopper Stops, Lifestyles and Westside participated in the pilot survey. These stores offer private labels and national brands.

After reviewing the pre-tested questionnaire, it was decided to confine the research to 12 variables and a new questionnaire was designed. The components in the questionnaire were fine-tuned keeping in view the experiences the researcher gained while conducting the pilot survey. Again the researcher did the Pilot study and data was tested for reliability using “Cronbach’s Alpha”. Validity of questionnaire was ensured due to the detailed literature review and discussions with senior managers of leading retail chains and industry experts of NCR region of Delhi.

Reliability has been measured with help of “Cronbach’s Alpha statistics”. The Cronbach’s Alpha values ranged from 0.70 to 0.75 for different segments of research instrument indicating that the data is suitable for confirmatory purpose.

4.8 Data Collection

The secondary data were collected through research papers, news dailies, magazines, journals, government agency reports, industry sources and internet etc.
Most of the primary data were collected using the mall-intercept and convenience sample survey method through a structured questionnaire. As it is known that mall intercept survey is a personalised interview method. Personally interviewing the respondents give appropriate results. First it helped to understand the respondents and guide them to participate in the survey. Second, the interviewer gave all clarifications immediately required by the respondents. This helped to gather complete data and avoid biasness which may have resulted from not understanding the questionnaire. Third, the response rate was also high due this method.

However, due care have been taken to avoid these disadvantages. To ensure randomness in the sample, after choosing the first respondent, every 5th customer was requested for the survey. The survey was conducted at different times and on different days at all the locations to lessen hour-of-the-day and day-of-the-week effect.

The respondents were chosen after asking the screening questions. The objectives of survey were informed to them. It was also ensure that their information would be kept confidential. The four leading retail chains which are located across different areas NCR region of Delhi were selected for survey. These areas were chosen keeping in mind different socio-economic profiles of the respondents as per Census Report 2010 conducted by Government of India.

4.9 Sample Design

Appropriate sample size provides precise results. All the elements of population were properly identified. Therefore, the sample was chosen with respect to both demographics (gender, age, income, education, living area) and private label vs. national brand products’ buying characteristics. The area of NCR was divided into nine geographic zones – North Delhi, East Delhi, Central Delhi, South Delhi, West Delhi, Noida, Ghaziabad, Gurgaon and Faridabad.

The retailers under this study were Shoppers Stop, Pantaloons, Lifestyles and Westside. The representative stores of each of these four retailers were identified in all the 9 zones. Mall-intercept surveys and personal interview methods have been adopted to collect data. The success rate of data collection accuracy is more than 80% through this method (Malhotra, 2009).
An appropriate sample provides true representative of population. **Sampling error** was minimizing with all care. Respondents from all the areas, age, income, marital status and education were given equal representation. **Non-sampling errors** like wrong information of respondents were thoroughly checked. Population for the study properly defined. Questions were precisely explained to them to get proper replies. Due care was given while transferring data from questionnaire to the spreadsheet on the computer. The researcher was alert at the time of coding, tabulation and computation to minimize the errors. The errors of sample frame were also avoided.

The sample size was decided after consultations from the supervisors and various experts in this area. 600 respondents classified on basis of age, gender, marital status, education income level and type of profession were surveyed for this study. 504 useable responses were obtained which indicates a healthy 83.3% conversion ratio. Malhotra (2009) has advised that for any empirical study (problem solving research) like the one in question, the sample size should be 300-500. The sample size was ascertained based on past experiences. It can provide as rough guidelines, especially when non-probability sampling techniques are used.

The following statistical formula helped to calculate sample size:

\[ N = \left( \sigma \right)^2 \left( z \right)^2 / e^2 \]

Where \( N \) is sample size, \( \sigma \) = standard deviation of the population, \( z \) = value associated with the desired confidence level and \( e \) = permissible error or the difference between the sample mean and population mean.

### 4.9.1 Sample Characteristics

The below given figure shows the profile of the respondents for this study:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>88.70%</td>
<td>11.30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>20-34</th>
<th>35-49</th>
<th>50-65</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>73.00%</td>
<td>20.50%</td>
<td>6.50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Married</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56.60%</td>
<td>44.40%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Up to 12th</th>
<th>Bachelor</th>
<th>Master and above</th>
<th>Others</th>
</tr>
</thead>
</table>
Since it was a purposive judgemental study, the sample consisted of predominantly male customers. 88.70 percent of the respondents were male. Because the purpose of the study was to understand the buying behaviour of the male customers, intentionally more male customers were targeted. Some female shoppers were also interviewed to get clear ideas about their shopping behaviour of men’s apparel as it is known that they also buy various products for their male family members. The majority of respondents were married (55.60 percent). Here it is evident that bachelor category respondents also have equally good representation. Majority of respondents (73 percent) are in the age group of 20-34 years. This age group is the active shoppers group and this is the target segment for most apparel retailers in men’s category. They earn and spend frequently for the apparels. The companies concerned must focus to target this age group of customers. Majority of the respondents were graduates and post graduates, (93 percent). This indicates that higher educated people are visiting malls and speciality stores for variety, bargain, quality and self satisfaction. The retail chain should be particular about discerning nature of their choices of store and preferences of merchandise. Most of the respondents were in service (72 percent), private or public. Business people also contribute to a large segment for purchase of men’s apparel and foot falls at large. It is very difficult to get information about the income of the customers. They very reluctantly shared their incomes. It is the common tendency to give the lowest figure. However majority (45 percent) of the people surveyed were having income between Rs.31000 and Rs.40000. Hence, the majority of the respondents belonged to middle / upper middle class income segment and with a larger part of them in service or business, the majority of the sample belonged to SEC A2 and B1 category. This sample is the optimal sample for this study.
4.10 Data Analysis Procedure

The present section describes the process of treatment of the data collected during survey, “initial data analysis, examine the respondent’s profile, assess the reliability and validity of the conclusions based on the collated data”.

4.10.1 Treatment of the Data

The data was collected according to the research methods which are mentioned above. Later data was encoded to put into SPSS. Standard procedures were adopted as per the existing guidelines advocated in the SPSS program to analyse the survey data. Data variable was assigned respondent ratings from 1 to 5 for the interval-scale questions and the assigned values for the categorical questions.

4.11 Data Analysis and Hypotheses Testing

The key techniques used in this study include:

- Descriptive analysis for the share of national brands / private labels in overall men’s apparel purchase
- Descriptive analysis for understanding various occasion of purchase
- Descriptive analysis for understanding the ranking of choice of various modern retail stores selling men’s apparels.
- Descriptive analysis for main influencers in the purchase of national brands / private labels.
- Single-sample t-tests were used as the major hypotheses testing techniques for finding the significance of all scale variables individually like store choice criteria
- Descriptive analysis for understanding the level of awareness of private labels and the level of preference of private labels.
- Cross-tabulations for testing the association between categorical variables like knowledge of private labels, preference of private labels vs. national brands with various demographic variables like gender, age, income, occupation, marital status, and families monthly household income.
- Wilcoxon Signed rank test was used for the comparative analysis of ranking of the various influencers for choice of private labels / national brands.
- Cross-tabulations for testing the association between categorical variables of knowledge of private labels and preference of private labels
• Cross-tabulations for testing the association between categorical variables of choice of the store and choice of the private label.
• Single-sample t-tests were used as the major hypotheses testing techniques for finding the significance of all variables influencing the preference of private labels / store brands individually.
• Paired sample t-test was used to test the hypotheses regarding the differences in reasons for preference of private labels and national brands.
• Factor Analysis was used to reduce the dimensions form 12 in the case of preference behavior. These factors were saved in the original data set through ‘save as variable’ option in SPSS.
• These new variables were used in further Discriminant Analysis. The new variables were the independent variables and the preference of private label or national brand was taken as the categorical dependent variable.
• Single-sample t-tests were used for finding the significance of all variables defining satisfaction from private labels / store brands individually.
• Paired sample t-test was used to test the hypotheses regarding the differences in variables creating satisfaction from private labels and national brands.
• Single-sample t-tests were used for finding the significance of all variables defining loyalty from private labels / store brands individually.
• Paired sample t-test was used to test the hypotheses regarding the differences in variables defining loyalty from private labels and national brands.
• A measure of overall satisfaction with private labels and national brands was calculated. ANOVA was used to find the difference between these two dependent variables on account of various demographic variables as the categorical independent variables.

4.12 Model Development

From the analysis of the data, various linkages between customer attributes and outside influences were identified. Looking at the Howard-Sheth Model, these linkages were fitted into a logical flow and a new model was created. It has been named as Men’s Apparel Choice Discrimination Model (MACDM) which can be used by retailers to understand how customer are likely to prefer private labels and how can post-purchase satisfaction and loyalty be understood.