CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

In the previous chapter, the researcher has discussed the conceptual framework, model and hypotheses developed for the study. This chapter documents the various considerations relating to the methodology of the study, essentially providing the framework to obtain answers to the research questions detailed in the first chapter.

Any research is designed to solve problems and explore ways of quantifying phenomena. The purpose of research is to obtain understanding, explanation and prediction, or to control some phenomena (Bagozzi 1994). A research design according to Zikmund (2003) is the master plan specifying the methods and procedures for collecting and analyzing the needed information to structure or solve business research problems. It controls for variance and gives a framework or blueprint for the study by suggesting the types of observations to make, how to analyze them, and the possible conclusions, that can be drawn from the analysis.

The proposed conceptual model basically hypothesize the interlinkages between the determinants of attitude and their effects on patronizing behavioural intention. Due to non availability of past research studies on apparel retailing in an emerging market, the constructs of the causal models,
as well as the hypothesized causal paths between the constructs were developed after:

- Reviewing scholarly literature in retail management
- Conducting an exploratory survey with consumers (Pre-Test Study)
- Conducting exploratory interviews with academicians in the area of marketing, as well as retail managers

The present study used primary data, which were obtained through questionnaires and utilized to measure all of the independent and dependent variables. This chapter will describe the procedure followed to gather information for conducting the research, and will clarify how the research problem has been solved. This chapter deals (1) data capturing, (2) data capturing tool - questionnaire development, (3) pre-test, (4) sample selection, (5) data collection, and (6) tools for data analysis.

4.2 DATA CAPTURING

This section outlines the specification of information needed to address the objectives of the research listed earlier. Information to be collected from apparel shoppers was divided into four components – information concerning shopping habits, information on the influence of store attributes on the preference of a store, information on the influence of dimensions of intention to patronage an apparel store, and information on standard demographic characteristics of the shoppers.

4.3 SOURCES OF DATA

Secondary data for the research was obtained from published reports of the industry, magazines, newspapers, text books, and from
previous research papers. Primary data was obtained from apparel shoppers who patronaged different categories of stores by administering the questionnaire personally.

4.4 DATA CAPTURING TOOL - QUESTIONNAIRE DEVELOPMENT

This study was designed to examine the influence of 13 dimensions on intentions to patronage apparel store. More specifically, this research determined the influence of (i) attitude towards shopping, (ii) subjective norm, (iii) perceived behavioural control, (iv) brand consciousness, (v) price consciousness, (vi) quality consciousness, (vii) variety consciousness, (viii) utilitarian shopping motives, (ix) hedonic shopping motives, (x) store image, (xi) self-image, (xii) store knowledge, and (xiii) previous shopping experience on intention to patronage an apparel store. To resolve some of the inconsistencies, 6 moderating variables are included in the model. They are, (i) product involvement, (ii) purchase decision involvement, (iii) brand loyalty, (iv) perceived time pressure, (v) perceived risk, and (vi) deal proneness.

The questionnaire was developed after intensive review of literature. All the constructs were measured using multi-item scales. Conceptual definitions as well as research studies in which the same or similar constructs were measured guided the scale development process. The final questionnaire had three parts:

**Section 1:** The first part of the questionnaire dealt with general questions on the shopping habits of the customer.

**Section 2:** This section was the principal section of the questionnaire and constitutes all the items of the various factors identified in the causal model for
study. Further this section contained items which are related to the customer and their preferred retail store.

**Section 3:** This section contained classification questions to record the socio-economic details of the shopper.

### 4.5 MEASURES

The questionnaire was designed using standard scales from the earlier studies. Items for measuring the dependent variable intention to patronage apparel store was measured using 3-item scale adapted from Grewal et al (2003). The items for various constructs were taken from previous research, subjective norm (Taylor and Todd 1995), perceived behavioural control (Taylor and Todd 1995), brand consciousness (Sproles and Kendall 1986; Sinha and Uniyal 2005), quality consciousness (Sproles and Kendall 1986), price consciousness (Tai 2005), variety consciousness (Donthu and Gilliland 1996), store image (Lichtenstein et al 1993), self image (Tai 2005), shopping motives (Rintamaki et al 2006), store knowledge (Cowley and Mitchell 2003), previous shopping experience (Reynolds and Beatty 1999), product involvement and purchase decision involvement (Mittal 1995), brand loyalty (Yoo and Donthu 2001), perceived time pressure (Putrevu and Ratchford 1997), perceived risk (Cunningham 1967; Jacoby and Kaplan 1972; Peter and Tarpey 1975), deal proneness (Burton et al 1998) and store attributes (Grewal et al 2003).

For attitude towards shopping, items were generated based on the procedure outlined by Ajzen (1991). A list of belief statements were elicited through a focus group and a pilot study with 100 respondents was done to identify five most frequently mentioned belief statements. These beliefs were considered for the main study.
All the constructs except previous shopping experience and store attributes were measured using 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). In case of store attributes, the scale anchored from ‘1’ – not at all influential to ‘7’ – highly influential. Previous shopping experience was measured using 7-point semantic differential scale with bipolar adjectives (displeased – pleased; unhappy – happy; disgusted – contented; frustrating – enjoyable). The questionnaire is attached in Appendix 10.

4.6 PILOT TEST

A preliminary study was conducted to test the questionnaire. Respondents evaluated the structure, wording, difficulty or ease of answering questions, as well as the time necessary to complete the questionnaire. The preliminary questionnaire was tested in November 2008 using a convenience sample of 100 respondents.

After making changes and additions, the questionnaire was tested again with twenty five respondents. The questions were tested and reviewed to ensure relevance of the data obtained to the research problem, clarity and appropriateness of the questions contained and to estimate the time required to complete the questionnaire. Each respondent was asked to complete the questionnaire on the spot and evaluate the questionnaire and provide his or her opinions regarding the general clarity of the questionnaire, his/her degree of understanding of the questionnaire, suggestions about wordings, the questions that can be avoided, and the order of the questions.

As a result of pilot testing, the researcher received both written and verbal comments on questionnaires. The test found no serious problems and minor amendments were made to the questionnaire based on the feedback received from the test and fine tuned for final data collection. Reliability of
the measures was also checked by computing Cronbach's coefficient alphas (Cronbach 1961). A final version of a questionnaire was then prepared. Pilot study participants did not participate in the final study. The final questionnaire took approximately 15-20 minutes to complete.

4.7 SAMPLING DESIGN

This section discusses the selection of a suitable sampling procedure and the sample composition in respect of the population considered for the study.

4.7.1 Product Class Selection

A product type may not only generally have a certain direction of retail shopping causality different from another product type, but the strength and significance of such a direction may also be different. Therefore, conceptually speaking, it is essential to concentrate on only one product type for testing the causality in order to have a more stable result than otherwise (Delener 1990). Apparel is chosen for this purpose. It is believed that the apparel product category manifests one's identity because of its high visibility (Jain 1989). This shopping product is also the most appropriate for a study of retail patronage behaviour (e.g. Shim and Kotsiopulos 1992a, 1992b, 1993; Zain and Jabri 1996).

In this study the researcher has considered apparel customers to test the proposed model. The sample in the study contains people who shop in different apparel stores which include stores selling men, women, and children garments, saree stores, specialty stores, and stores of national retail chains, like Pantaloons, Shoppers Stop, and Westside etc.
4.7.2 Sampling

4.7.2.1 Population and Study Area

Population is defined as ‘the complete set of units of analysis that are under investigation, while element is the unit from which the necessary data is collected’ (Davis 2000, p. 220). This study focuses on individuals to investigate the intention to patronage a store. The empirical study is conducted in the Bengaluru city in order to test the theoretical model.

Bengaluru is used as the geographical base for conducting the study partly because of radical retail transformation, resulting in a wide array of important apparel retail formats. These westernized retail formats have grown to an extent that their market power is comparable to traditional cloth merchant. On the other hand, perhaps mainly due to consumer culture, a great variety of traditional merchants still collectively maintain a majority share in the market. These traditional outlets comprise family owned independent shops. KSA Technopak (2000) and McKinsey retailing reports, (2001) showed Bengaluru and Chennai to be the most evolved retail centers in the country. They had the maximum share in organized retail with several new formats and the highest retail space. The city of Bengaluru was chosen as it had almost all major store formats including the online stores which make the environment suitable for testing the model.

Bengaluru, also known as Bengaluru, is the capital of the Indian state of Karnataka. Located on the Deccan Plateau in the south-eastern part of Karnataka, Bengaluru is India’s third most populous city and fifth-most populous urban agglomeration with a population of 8 million (2001 Census).

Bengaluru’s Rs 260 crore (US$ 100 billion) economy (2002–03 Net District Income) makes it a major economic centre in India. With an economic growth of 10.3%, it is the fastest growing major metropolis
in India. Additionally, it is India's fourth largest fast moving consumer goods (FMCG) market. The city is the third largest hub for high net worth individuals and is home to over 10,000 dollar millionaires and about 60,000 super-rich people who have an investable surplus of Rs. 4.5 crore (US$ 1 million) and Rs. 50 lakh (US$ 100,300) respectively (Table 4.1).

Table 4.1 Bengaluru’s Geographic Details

<table>
<thead>
<tr>
<th>Geographic Profile</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>740 square kilometers</td>
</tr>
<tr>
<td>Altitude</td>
<td>3000 ft. above sea level</td>
</tr>
<tr>
<td>Geographical Location:</td>
<td>Latitudinal Parallels: 12 degree 8' N Longitudinal Meridians: 77 degree 37' E</td>
</tr>
<tr>
<td>Area</td>
<td>740 square kilometers</td>
</tr>
<tr>
<td>Population</td>
<td>8 million</td>
</tr>
<tr>
<td>Literacy</td>
<td>85.74%</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>About Rs 50,000 per annum</td>
</tr>
</tbody>
</table>


The population for the study consists of all consumers who are above the age of 18 years and who takes decision on their apparel shopping. The rules of membership of the population are as follows:

- In the present study, customer patronage is being measured by the propensity of the customer to revisit the store for making future purchases based on his or her shopping experience. The shoppers who had actually made some purchases within the last six months were included in the population. Customers
who had not made any purchases earlier were not part of the population.

- Only Indian consumers were considered as a part of target population.

4.7.2.2 Sampling Technique and Sample Size

Sampling technique deals with the manner in which the data from the target consumers should be obtained from the entire population of shoppers. A multistage sampling procedure was employed to select the sample for the study. The sample unit selection criteria varied slightly for each stage of sampling and are detailed below. A hierarchical series of sampling units was created prior to the selection of the sampling element as defined in the population (refer Table 4.2).

**Table 4.2 Steps followed in Sample Selection**

<table>
<thead>
<tr>
<th>Levels</th>
<th>Sampling hierarchy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primary Sampling unit (PSU)</td>
<td>Region of the City</td>
</tr>
<tr>
<td>2</td>
<td>Secondary Sampling Unit (SSU)</td>
<td>Locality in a Area Within the Region</td>
</tr>
<tr>
<td>3</td>
<td>Tertiary Sampling Unit (TSU)</td>
<td>Household</td>
</tr>
<tr>
<td>4</td>
<td>Element</td>
<td>Adult as defined in the population</td>
</tr>
</tbody>
</table>

Sample size can be decided based on different criteria. For the present study, sample size was determined based on 95 % confidence level with an accuracy of 5 %. Another guideline used was sample adequacy for the statistical tools used. Hence a sample of more than 500 respondents was selected. Multi stage sampling technique was adopted for data collection. The
researcher used judgment sampling to select primary and secondary sampling unit and random sampling for tertiary sampling unit.

4.8 DATA COLLECTION

Final data collection was done in the month of December, 2008 – February 2009. Respondents were interviewed through door-to-door contact and questionnaire drop-in-collect later method. It was ensured that if the researcher was not able to collect data from a house that the researcher chose, it is included it under the category of non-respondents. All of them were tried again but even after repeat trial there were a few non-respondents. Out of the 750 questionnaire distributed the researcher got responses from 565 respondents and among them 513 were usable.

4.9 FRAMEWORK OF DATA ANALYSIS

In any empirical research a thorough analysis of the research instruments is essential to establish that the empirical findings accurately reflect the proposed constructs. SPSS-15, the Statistical Package for Social Science, was used for data analysis.

Instrument reliability, the degree of consistency between multiple measures of a particular construct was tested using Cronbach’s alpha coefficient and confirmatory factor analysis. To examine the shopping habits chi-square test and one-way ANOVA was used.

To test the proposed hypotheses different multivariate statistical techniques were used.

- Factor analysis was used to identify the dimensions of store attributes which are important across different apparel store formats.
Multiple regressions were used to test the relationship between dependent and independent variables and to check for the significance of the factors and the hypothesized causal paths.

Analysis of Variance (ANOVA) was applied to test the moderation effect of behavioural variables on the effect of attitude towards shopping on intention to patronage.

4.10 CONCLUSION

The purpose of this study was to describe and predict apparel store patronage. This chapter provides details of the research methodology and procedures used in this study, and provided a justification of the research methodology. The focus of this chapter was on the development of the questionnaire and the analytical methods employed to assess the propositions and answer the research questions. This chapter also described the statistical methods employed for data analysis, including validity and reliability assessments. The next chapter reports the results of the data analysis.