Chapter 3
Research Methodology

CHAPTER 3

RESEARCH METHODOLOGY

This chapter relates to research methodology used to seek answers to the questions posed. In this chapter, an attempt will be made to define and describe the problem, the nature of the population (i.e. the industries and the consumers included for the study and the sample selected from it and the questionnaire used, procedure adopted for data collection and statistical techniques used to analyze the data.

3.1   THE PROBLEM

In the preceding two chapters, an attempt has been made to provide a comprehensive background of the study so that the research problem could be seen in a broader context. This section is devoted to the statement of the problem. Specially, efforts have been made to formulate the general and specific problems, state the objectives and the purposes, and indicate theoretical and practical significance of the problem and specify delimitations.

3.2   STATEMENT OF THE PROBLEM

The study seeks to answer the following questions:

1.   What are cultural similarities and dissimilarities between the North India and South India?

2.   Identifying North and South Indian cultures based on the 4 cultural dimensions of Hofstede viz Power Distance, Uncertainty Avoidance, Masculinity/ Femininity , and Individualism/Collectivism.

3.   Identifying the pattern of apparel purchase behaviour in North India and South India.

In the light of the problem stated above, the objectives of the study may be broadly outlined as follows:

3.3 OBJECTIVES AND PURPOSE OF THE STUDY

An effort has been made is this study to comprehend the Indian cross- cultural behavior based on which the objectives of the study have been framed. Multinational companies entering into the complex Indian market face problems and many of them could not succeed because of the complex diversity of Indian society in many aspects. Each group and each sector of the society has to be approached by the marketing companies in a different way to make it a prospective consumer. The overall attempt of the proposed study is to understand the behavior of Indian consumers under cultural diversity.

The objectives of the study are given below:

1.   To investigate the differences among different sub-cultures applying Hofstede cultural dimension.

2.   To investigate the difference in pre-purchase behaviors, purchase behavior and complaining as post-purchase behavior between North and South India.

3.   To determine the factors and their impact on apparel purchase.

3.4 SIGNIFICANCE OF THE STUDY

The study is of utmost significance for the following theoretical and practical concerns:

3.4.1 Theoretical Concern

1.   Theoretically, the study compares North and South Indian cultures. It brings out differences as well as similarities between two regions on the basis of cultural dimension of Hofstede.

2.   As culture varies from region to region, a close insight into region specific culture and its understanding is very important for smooth penetration into any regional domestic market. This study will provide an insight to overall fundamental dimensions of North and South Indian cultures and resultant marketing implications.

3.4.2 Practical Concern

This study will be helpful to the Multi-National Companies (MNCs) and global companies who wish to enter into the Indian market, in the manner as mentioned below

1. This study will help the managers to comprehend the differences and similarities between the North India and South India so that a suitable marketing programme can be developed differently for the two regions.

2. This study will help the mangers to understand the pattern of apparel purchase and accordingly, modify their products to the needs of the consumers of the two regions.

3. The study will help the managers to understand the effect of acculturation on buying behaviour and guide them to develop suitable marketing strategies for migrated consumers.

4. The present study will also help domestic firms which intent to expand from one region to another (North to South or vice versa).

5. The study will provide an important insight for managers of apparel industry regarding the dominant factors that affect apparel purchase in North and South India.

3.5   LIMITATIONS OF THE STUDY

Notwithstanding its above significance, the study has the following major limitations:

1. The study is based on two methods of data collection: questionnaires and analysis of records. Thus, the extent of reliability and validity of the findings of this study depends on the reliability and validity of these methods of data collection.

2. The present study is largely exploratory in nature. Despite its external validity, it lacks internal validity. Thus, notwithstanding its richness of data, it lacks control of variables (either through experimental design or through statistical techniques) influencing the research results.

3. Marketing Stimuli provided by the marketers at the time of study (advertisements, sales promotion schemes) etc. was not considered while gathering data for the purpose of the study.

3.6 THE POPULATION

This section involves the population from which samples have been selected.

3.6.1 Demographic Profile of North India and South India

A brief description of the demographic profile of the North India and the South India is explained with the help of various demographic variables.

3.6.1.1 Population

Total population of North India is 80, 87, 44,330 and of South India is 40,71,00,925 (Census, 2011). North Indian population is almost twice the south Indian population, reason being the vastness of area covered under North India.

3.6.1.2 Education

When it comes to literacy rate, South India scored higher with 68.93 % literacy rate as compared to 60 % in the North India (Census, 2011). India has an overall literacy rate of 75.87 % .State with the highest literacy rate in North India is Mizoram with 97.89 % literates and Madhya Pradesh with 36.1 % is the lowest from the in entire India. In South India, Kerala has the highest literacy rate of 95.72 and Andhra Pradesh has the lowest with 60.01 %.

3.6.1.3 Rural/Urban Distribution

In North India, 21,41,83,603 people reside in urban area i.e. 26 % of the total population where as in South India, 16,29,22,157 people reside in urban area i.e. 40 %. Thus, there is a clear difference between the North and the South and it can be said that South India is more urbanized than North India.

3.6.1.4 Gender

There is not much difference between North India and South India in terms of sex ratio. According to Census (2011), South India has 930 females per 1000 males as compared to 929 females per 1000 males in North India.

3.6.1.5 Family Size

Traditionally, Indian family size used to be of 5 to 8 members or sometimes even bigger till a few decades ago. However, due to increased awareness programs for small family by government, this trend is on decline and nuclear families are quite common these days. But this trend has been restricted more or less in the cities only. In rural India, preference is still given to large families as they signify power. From the marketers' point of view, nuclear families are appreciated as nuclear families mean more sales.

3.6.1.6 Family Life Cycle

As in the Western countries, the family life cycle stages are almost the same in India also. But the habits of the people in India are quite different as compared to the West. People here take care of their children till the time they can and decide all the matters even after the marriage of their children. So the person is still not able to take the decisions for himself even after marriage as the decision making power lies with the oldest member of the family.

3.6.1.7 Income

Per capita income of India at the real terms (2004-05 prices) during 2013-14 was estimated to be Rs 39,904 which showed a growth of 2.7 % against the per-capita income of 2012-13. (CSO, 2014).

3.6.1.8 Occupation

Agricultural has been the traditional occupation of the Indians which employ up to 70 % of workforce at a point of time. However, with the rapid industrialization and urbanization in the country, employment in the agriculture sector and allied sectors

has been going down over a period of time and service sector and manufacturing sector have picked up rapidly. Of the total workforce, presently 52.2 % are self-employed, 17.9 % are under the regular wage/salaried category and 29.9 % work as casual labour as per the data available with NASSO for the year 2011-12. A detailed picture of the each sector in employment scenario is depicted in the Table 3.1.

Table 3.1: Employment scenarios Sector wise

	Employed (2011-12)	
	Numbers (in millions)	**Share in Jobs**
Agriculture	231	48.9 %
Services	127	26.9 %
Manufacturing	60	12.6 %
Construction	50	10.6 %
Mining & Utilities	5	1.1 %
TOTAL	**473**	**100 %**

Source: Employment Survey of National Sample Survey Organisation (2011-12)

3.6.1.9 Religion

India is known as a land of philosophy and spirituality. It has been the place of origin of so many of the religions of the world. .The most dominant religion in India is Hinduism. Apart from Hinduism, Islam, Buddhism, Christianity, Sikhism, Jainism etc. are practiced in India.

3.7   DIFFERENCE BETWEEN NORTH AND SOUTH INDIA

India is a vast country and spans around 3,287,240 sq.km. Census (2011). But before going any further, a mention is to be made of the divide between the North India and the South India. It may be done by demarcating a line splitting a country into two regions. The Vindhaya mountain range divides the country into 2 halves (Manoj, 2009). Upper half is known as North India and the lower half is known as South India as depicted in Figure 3.1. Dividing line of the country cannot be straight as it will clash with the state borders, so the dividing line will move along with the state borders. As of now, there are twenty nine states and seven union territories

(including Delhi) in India (Maps of India Website). The map given at *Figure 3.1* shows the broad demarcation between North and South India, whereas, the *Figure 3.2* below depicts the location of all the 29 states and 7 Union Territories of India. Although, a strong sense of belongingness and oneness is found throughout the country, yet, it being a vast country, naturally has so many diversities in all respects i.e. food habits, apparel wearing tendencies, linguistic diversity and even physical appearances. Many times, even in the two major regions of the country, there are diversities in many respects. However, for the purpose of this study, the whole country has been divided into two parts only i.e. North India and South India.

Source: Vorting (2008)

Figure 3.1: Indian Map with Vindhyas Mountain Range

Figure 3.2: Political Map of India

3.8   SAMPLING PROCEDURES

A total sample of 2207 persons was collected from entire India covering all Indian states. Out of 2207, 1547 questionnaire were discarded for response error. Sample size was calculated for infinite population using significance level of 5 % , tolerable error of 5 % for a five point Likert scale using the formula "n=(Zs/e)2". This formula gave the sample size of 690. Further, there are 29 states and 7 Union territories in India. Due to paucity of resources and time, only states were covered and union territories (except Delhi) were left out .At the time of collecting samples, Telangana did not exist as a state and it was part of Andhra Pradesh. In order to have sizeable sample proportionate to state population, the sample size was increased to 709 as shown in Table 3.2.

Thus, the sample is true representation of population. Further, the data was collected from universities in each state which formed the sample frame for this study. Universities were selected randomly and respondents from the universities were selected conveniently. One university was selected from each state.

Table 3.2: Sample drawn from the States

S.No	State	Population	Population %	Total sample	MALE SAMPLE	FEMALE SAMPLE
1	Arunanchal Pradesh	1382611	0.115217583	2	1	1
2	Assam	31169272	2.597439333	18	9	9
3	Bihar	103804637	8.650386417	61	32	29
4	Chattisgarh	25540196	2.128349667	15	7	7
5	Gujrat	60383628	5.031969	35	18	17
6	Haryana	25353081	2.11275675	15	8	7
7	Himanchal Pradesh	6856509	0.57137575	4	2	2
8	Jammu and Kashmir	12548926	1.045743833	7	4	3
9	Jharkhand	32966238	2.7471865	19	10	9
10	Madhya Pradesh	72597565	6.049797083	42	22	20
11	Manipur	2721756	0.226813	2	1	1
12	Meghalaya	2964007	0.247000583	2	1	1
13	Mizoram	1091014	0.090917833	2	1	1
14	Nagaland	1980602	0.165050167	2	1	1
15	New Delhi	16753235	1.396102917	10	5	5
16	Punjab	27704236	2.308686333	16	9	8
17	Rajasthan	68621012	5.718417667	40	21	19
18	Sikkim	607688	0.050640667	2	1	1
19	Tripura	3671032	0.305919333	2	1	1
20	Uttar Pradesh	199581477	16.63178975	116	61	55
21	Uttaranchal	10116752	0.843062667	6	3	3
22	West Bengal	91347736	7.612311333	53	27	26
23	Andhra Pradesh	84665533	7.055461083	49	25	25
24	Goa	1457723	0.121476917	2	1	1
25	Karnataka	61130704	5.094225333	36	18	18
26	Kerela	33387677	2.782306417	19	9	10
27	Maharashtra	112372972	9.364414333	66	34	31
28	Orissa	41947358	3.495613167	24	12	12
29	Tamil Naidu	72138958	6.011579833	42	21	21

Although the samples were collected from universities and colleges, the respondents were not only students but drawn from different demographic profiles. Thus, it includes persons, of course with a varying degree, from all groups with regard to age, gender education and income. The details of the respondents are given below in 3.3.

Table 3.3: Demographic Profile of the Respondents

Age		
	Frequency	**Percent**
Less than 20	222	31.3
21-30	290	40.9
31-40	89	12.6
41-50	62	8.7
Above 50	46	6.5
Total	709	100.0
Gender		
Male	368	51.9
Female	341	48.1
Total	709	100.0
Occupation		
Student	464	65.4
Service	203	28.6
Business	13	1.8
Housewife	21	3.0
Retired	8	1.1
Total	709	100.0
Education		
10+2	182	25.7
Graduate	180	25.4
Post-Graduate	219	30.9
PhD	128	17.8
Total	709	100.0
Family Income (in Rs)		
less than 20000	153	21.6
20001-40000	176	24.8
40001-60000	143	20.2
60001-80000	96	13.5
more than 80000	141	19.9
Total	709	100.0

3.9   COLLECTION OF DATA

Data for the present study was collected from all the Indian states. Since the nature of the study is purely exploratory, therefore, data had to be collected from consumers from each and every state to make a comparison between the North and South Indians. It was practically not possible for the researcher to visit each and every state of India for data collection mainly because of the time and money constraints and vastness of the country. Therefore, researcher mailed the questionnaire to the known person in the university and asked the concerned person to distribute the hard copies of the questionnaire to the respondents. Total 2207 questionnaires were received by the researcher.

3.10 QUESTIONNAIRE

A questionnaire was designed in a method that it translated the analysis objectives into specific queries and, therefore, enabled the researcher to get knowledge necessary to identify the impact of cultural dimensions on apparel purchase behaviour of the North and South Indians. The questionnaire was designed in four parts that were associated with cultural dimension, consumer behaviour, acculturation and respondent demographics, so as to accomplish the analysis purpose. Part A consisted of cultural dimension scale. The scale was adopted from Donthu & Yoo (1998)and suitably modified for the study. Part B was divided into four sections. First section gathered the information about the preference of the apparel and second section asked the respondents to rank the various dresses according to the preferences. Third section consisted of a consumer behaviour scale which was developed from the extensive review of literature. Fourth section was designed to elicit the information about the monthly purchase of the respondents' family on apparels. Part C was designed to study the attitude of the respondents regarding the acculturation. Part D gathered information about the demographic profile of the respondents like age, gender, education level, income level, family members and mother tongue, etc.

While designing the questionnaire, following points advised by Festinger and Katz (1953) were taken into account:

1. The respondent's frame of reference was taken into consideration by putting completely different problems in a method that was in line with his/her perceptions and expectations regarding them.

2. The queries were framed in a method that they contained no suggestive answers.

3. Every question was restricted to single plan or single reference.

4. The sequence of ideas within the schedule/questionnaire followed the logic of the respondent and therefore, expedited his/her progress from item to item.

The questionnaire embodied the 3 subsequent styles of questions:

1. Open (unstructured) sort that got answers in respondent's own words and inspired him/her to structure answers as he/she needed.

2. Closed (structured) sort that needed choice of answers by the respondent from a series of pre-assigned classes.

3. Likert scale was presented to the respondents with a five point scale ranging from strongly disagree (1) to strongly agree (5). The higher the score, the higher the respondent rated on the factor.

3.10.1 Pre- testing

Questionnaire was pre tested on the group of 50 people, 25 from North India and 25 from South India. This pre-testing enabled the researcher to determine whether or not it had accomplished the objectives .As an outcome of this pre-testing, many alterations were made within the original questionnaire to be used in the study.

The following alterations were made after pre-testing was done.

1. Consumption variable was changed from tea/coffee to apparels because respondents were not able to quantify their purchase for tea/coffee. However, significant difference exists between north and South India for apparel wear and it was easier for respondents to quantify the purchase of apparels.

2. A special demographic variable "Mother Tongue" was included to identify the race of the respondents who were born and brought up in North India and had the south Indian roots and vice versa.

3. Average monthly expenditure of the individual was replaced by average monthly expenditure of the family.

4. To the qualitative insight of the study two open ended questions were added.

3.10.2 Reliability of the Instrument

The reliability of the three constructs was tested using the cronback Alfa on IBM-SPSS Version 20 software. It was found to be above .60 which is acceptable (DeVellis, 1991; Nunnaly, 1978; Spector, 1992).

3.10.3 Validity of the Instrument

The validity of the content was taken care of by taking professional guidance of research supervisors from time to time. The construct validity of the form was tested by testing applicable hypothesis as mentioned in chapter 4.

3.10.4 Techniques of Data Analysis

After data was collected, it was coded and edited to be entered into SPSS. Further, various techniques like bar diagrams, statistical tools, factor analysis, multiple regression and hypothesis testing etc. were used to derive the meaningful information.

3.10.5 Editing

Before coding and tabulation, every questionnaire was edited to determine its completeness and consistency. The researcher edited the data collected through questionnaire and removed the discrepancies. The discrepancies were removed by clarifying the doubts, if any, with the respondents.

3.10.6 Coding

The response to open ended items were analyzed and coded into categories, considered appropriate by the researcher. All content categories were examined carefully. Nothing has been done to change the response except for combining some

categories that were similar or essentially the same. The coding of the close ended questions was done in numeric form to feed data in SPSS version 22 to perform appropriate statistical analysis and hypothesis testing.

3.11 HYPOTHESIS TESTING

Appropriate hypotheses, as discussed in chapter four, were framed to test the difference between two sample means using the Z test. For more than two samples, mean testing was done by using One-Way Anova and Two-Way Anova.

3.11.1 Calculation of Ranks and Scores

The participants were requested to rank their choices to specific closed structured questions with several options. This provided ordinal measurement which does not have the suitable attributes of equal intervals or absolute zeroes. The absence of real zero in this kind of measurement is not as serious as the lack of equal intervals. Essentially, in the absence of interval equality, the distances with the ordinal scale simply cannot be applied without switching it into an interval scale. However, as Kerlinger (1978) observes, "though most psychological scales are basically ordinal, we can with considerable assurance often assume equality of intervals".

The rank values were converted into scores as follows:

Ranks	Scores
1	5
2	4
3	3
4	2
5	1
6	0

Appropriately, the scores were being added in and also lower scores were related to high preferences. The statements where opinions were considered, the scoring was done in the following manner:

Opinion	Scores
Highest Worn	1
Generally Worn	2
Moderately Worn	3
Sometimes Worn	4
Least Worn	5
Not Worn	6

3.11.2 Bar Diagrams

The bar diagrams have been applied to compare the responses of North and South Indians and they have also have been utilized to reveal the feedback of the consumers wherever necessary.

The present chapter highlighted the research methodology used. The next chapter discusses in-depth analysis of the data using various statistical tools suggested in the chapter of research methodology.