Chapter 4

Research Methodology

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4.1 Introduction

Research Methodology is a systematic and structured procedure to arrive at the conclusion of a defined problem. The present chapter discusses the methodological foundation and the research approach used to test the hypotheses developed in Chapter 3. The intent of the chapter is to guide the reader through the methodological procedures used for the thesis. A well-planned research methodology helps to carry forward the study in a logical step to come to the conclusion of the research problem.

There are eleven sections in this chapter. The section 4.2 reviews the research objectives. Research design is described in section 4.3. The discussion then moves to defining the target population (section 4.4) and sampling methods (section 4.5); Sample size is justified in section 4.6 and is followed by the instrument development in section 4.7; and coding of the questionnaire in section 4.8. Pre-testing the questionnaire is discussed in section 4.9 and section 4.10 discusses operational definitions used in this study. Section 4.11 summaries the research methodology adopted for this study.

4.2 Research Objectives

The main objectives of the study are as follow:

1. To study the sales promotion schemes employed by various shopping malls in Gujarat with respect to ready made garments category.
2. To develop a sales promotion perspective through review of various propositions by different researchers.
3. To examine consumer response to different sales promotions schemes and delineate factors (i.e. demographic and psychographic) affecting consumer responses.
4. To develop a shopping mall perspective.
4.3 Research Design

Having identified the variables in a problem situation and developed the hypothetical framework, the next step is to design the research in a way that the requisite data can be generated and analyzed to arrive at a solution (Sekaran, 2006). A research design is a framework or blueprint for conducting the marketing research project. It is a master plan of the research methods and procedures that should be used to guide data collection and analysis tasks of the research project. It specifies the type of information to be collected, the sources of data, and the data collection procedure. Research design ensures that the study will be relevant to the problem and will use economical procedures (Churchill et al., 2002).

There are many research design framework. One very useful classification is in terms of the fundamental objectives of the research: exploratory, descriptive and causal.

The general objective in exploratory research is to gain insights and ideas of the topic being studied (Churchil et al., 2002). Exploratory research is used when the researcher aims to gain background information to define terms, to clarify problems or hypotheses and to explore a new topic. Through exploration researchers develops concepts more clearly, establishes priorities, develops operational definition and improve the final research design (Cooper and Schindler, 1999).

The objective of a descriptive study is to learn who, what, when, where and how of a topic (Cooper and Schindler, 1999). A descriptive study is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation (Sekaran, 206). The descriptive research study is typically concerned with determining the frequency with which something occurs or relationship between two variables (Churchill et al., 2002). Descriptive research is used when the purpose is as follow (Churchill et al., 2002):
1. To describe the characteristics of certain groups.
2. To estimate the proportion of the people in a specified population who behave in a certain way.
3. To make specific prediction.

A causal research design is concerned with determining cause-and-effect relationships. Casual studies typically take the form of experiments because experiments are best suited to determine cause and effect (Churchil et al., 2002).

In this study, two-stage methodology was adopted. The first stage was exploratory research, which was conducted to gain a better understanding about the research area being studied. The second stage was a descriptive survey, which gathered data for testing the research hypotheses. Causal research design was not employed in this study as it was not concerned with determining cause-and-effect relationships. Exploratory research and descriptive research designs employed in this study are overviewed here.

Exploratory research was used initially to gain fundamental information to identify demographic and psychographic factors explaining the impact of sales promotion on consumer’s purchase of apparel in shopping malls. A variety of productive exploratory approaches (i.e., literature reviews, unstructured interviews, case studies, etc.) were used for the same.

For literature review, secondary data were collected from following sources:

1. Various books on consumer behavior and retailing,
3. Internet
To collect the secondary data, various libraries of various institutes and associations were visited.

Apart from literature review, interviews with professors of leading B-schools, managers of retail stores were conducted. Also customers of retail shop were interviewed to gain insights into the relevant factors and their relationships to the consumer response towards sales promotion schemes while purchasing readymade garments.

Descriptive research was used to validate the hypothesis generated from the exploratory research. Quantitative data were collected using structured questionnaire. Descriptive research was most appropriate to be conducted for the second stage of research because descriptive research enables the researcher to identify key demographic and psychographic variables, and to examine how these factors influence the impact of sales promotion schemes on consumer responses in purchasing readymade garments.

### 4.4 Definition of the Target Population

The target population for this study was the customers who had purchased readymade garments in the various shopping malls of Gujarat. Data were collected from shopping malls located in four cities of Gujarat (India) i.e., Ahmedabad, Rajkot, Surat and Vadodara.

### 4.5 Sampling Method

This study used mall intercept survey method to collect the data. To ensure proper coverage of the sample, it was decided to draw sample from four major cities of Gujarat, i.e., Ahmedabad, Rajkot, Surat and Vadodara. Data were collected from shopping malls located in these cities. Data were collected during the month of May and June, 2008. A convenience sampling method was undertaken for this study. Customers who had purchased readymade garments in the various shopping malls were approached and requested to participate in the survey. Questionnaire was hand carried and personally
explained to respondents by the interviewers. Interviewers gave instructions for completing the questionnaire and waited while respondent independently filled out questionnaire.

Samples were collected from shopping malls located in four cities of Gujarat (India), i.e., Ahmedabad, Rajkot, Surat and Vadodara. In selecting the sample, the judgment of the researcher, convenience and willingness of the respondents to co-operate were major criteria. The details of the actual number of respondents from four said cities are given in following Table 4.1.

Table: 4.1: City wise Distribution of the Sample

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the city</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ahmedabad</td>
<td>189</td>
<td>36.5</td>
</tr>
<tr>
<td>2</td>
<td>Rajkot</td>
<td>116</td>
<td>22.4</td>
</tr>
<tr>
<td>3</td>
<td>Surat</td>
<td>110</td>
<td>21.2</td>
</tr>
<tr>
<td>4</td>
<td>Vadodara</td>
<td>103</td>
<td>19.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>518</td>
<td>100</td>
</tr>
</tbody>
</table>

4.6 Justification of the Sample Size

A sample size of 518 respondents was targeted for the main study. This sample size can be justified by following two arguments.

Following formula can be used to determine sample size (Nargundakar, 2003).

\[ n = p (1 - p) \frac{Z^2}{e} \]
Where

\[ n = \text{Sample Size} \]
\[ Z = \text{Z value from the standard normal distribution for the confidence level desired by the researcher. For this study we assumed 95 percent confidence level. Then from the standard distribution tables, the Z value is 1.96.} \]
\[ p = \text{Frequency of occurrence of something expressed as a proportion.} \]
\[ e = \text{Tolerable error. This can be decided by the researcher. For this study we assumed tolerable error 0.05.} \]

Using above formula, whatever be the value of \( p \) the sample size comes out to be less than 385. This implies that the sample size of 518 will be more than sufficient to estimate the population proportions with 95 percent confidence level and allowing tolerable limit of 0.05.

As this research used multivariate techniques (i.e. Structure Equation Modeling) to test the proposed hypotheses, a sample size of 518 was deemed to be most appropriate for this study that measured 19 independent variables because this sample size meets the recommendation for the use of SEM, requiring the ratio of observations of at least 15 to 20 for each independent variable (Hair et al. 2003).

4.7 Instrument Development

The function of a research instrument is to satisfy research objectives through the measurement of independent and dependent variables of interest. Based on the objectives of the study stated in Chapter 1 and hypotheses developed in Chapter 3, structure questionnaire was developed as an instrument of measurement. As the first step in questionnaire development, a bank of items suitable for measuring the constructs under study was gathered from the relevant literature. A detailed description of scales and types
of measurement used to measure demographic and psychographic variables in this thesis is described in Table 4.2.

Table 4.2: Description of the measurement scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale used to measure this variable</th>
<th>Type of measurement used to measure this variable</th>
<th>No. of Statements</th>
<th>Source of the scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Nominal Scale</td>
<td>Dichotomous question</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Age</td>
<td>Ratio Scale</td>
<td>Multiple choice question</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Education</td>
<td>Nominal Scale</td>
<td>Multiples choice question</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Nominal Scale</td>
<td>Multiples choice question</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Monthly Family Income</td>
<td>Ratio Scale</td>
<td>Multiples choice question</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td><strong>Psychographic Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price Consciousness</td>
<td>Interval Scale</td>
<td>Five Point Rating Likert scale</td>
<td>3</td>
<td>Lichtenstein et al., 1993; Martinez &amp; Montaner, 2006</td>
</tr>
<tr>
<td>Quality Consciousness</td>
<td>Interval Scale</td>
<td>Five Point Rating Likert scale</td>
<td>3</td>
<td>Tai, Sushan, H.C., 2005</td>
</tr>
<tr>
<td>Perceived Financial Constraints</td>
<td>Interval Scale</td>
<td>Five Point Rating Likert scale</td>
<td>2</td>
<td>Ailawadi et al., 2001</td>
</tr>
<tr>
<td>Measure</td>
<td>Scale Type</td>
<td>Rating Scale</td>
<td>Scale Range</td>
<td>Source(s)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------</td>
<td>--------------</td>
<td>-------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Value Consciousness</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>4</td>
<td>Tai, Sushan, H.C., 2005</td>
</tr>
<tr>
<td>Shopping Enjoyment</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>S. Wesley et al., 2006</td>
</tr>
<tr>
<td>Need for Innovation</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>Ailawadi et al., 2001</td>
</tr>
<tr>
<td>Variety Seeking Behavior</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>2</td>
<td>Ailawadi et al., 2001</td>
</tr>
<tr>
<td>Impulsive Buying</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>S. Wesley et al., 2006, Martinez and Montaner, 2006</td>
</tr>
<tr>
<td>Market Mavenism</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>Ailawadi et al., 2001</td>
</tr>
<tr>
<td>Motivation to Confirm</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>Tai, Sushan, H.C., 2005</td>
</tr>
<tr>
<td>Store Loyalty</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>Ailawadi et al., 2001; Tai, Sushan, H.C., 2005</td>
</tr>
<tr>
<td>Shopping Plan</td>
<td>Interval Scale</td>
<td>Five Point</td>
<td>3</td>
<td>Ailawadi et al., 2001; Martinez and Montaner, 2006</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Time Pressure</th>
<th>Interval Scale</th>
<th>Five Point Rating Likert scale</th>
<th>2</th>
<th>Ailawadi et al., 2001; Mittal, 1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need For Cognition</td>
<td>Interval Scale</td>
<td>Five Point Rating Likert scale</td>
<td>2</td>
<td>Cacioppo &amp; Petty, (1982)</td>
</tr>
</tbody>
</table>

### 4.8 Coding the Questionnaire

Coding means assigning a code, usually a number, to each possible response to each question (Malhotra, 2007). Table 4.3 shows the coding of the questions used in this study.

**Table 4.3: Coding of the Questionnaire**

<table>
<thead>
<tr>
<th>Questions Number</th>
<th>Description</th>
<th>Coding</th>
</tr>
</thead>
</table>
| -                | City        | 1 – Ahmedabad  
2 – Rajkot  
3 – Surat  
4 – Vadodara |
| Q – 1            | Frequency of Purchase | 1 – Once in a month  
2 – Once in two month  
3 – Once in four month  
4 – Once in six month  
5 – Once in One Year |
| Q – 2            | Money spend in a shopping trip | 1 – Less than Rs. 1000  
2 – Rs. 1001 to Rs. 2000  
3 – Rs. 2001 to Rs. 3000  
4 – Rs. 3001 to Rs. 4000  
5 – More than Rs. 4000 |
Q – 3  | Time spend in a shopping mall during trip | 1 – Less than one hour  
                  | 2 – One to two hours  
                  | 3 – Two to three hours  
                  | 4 – Three to four hours  
                  | 5 – More than four hours  

Q – 4  | No. of items of readymade garments purchase during shopping trip | 1 – One or two  
                  | 2 – Three to six  
                  | 3 – Six to ten  
                  | 4 – More than ten  

Section 2 : Readymade Garments Buying Behaviour  

| Statements 1 to 48 | This sections contains fourth eight statements measured on Five Point Likert Scale | 1 – Highly Disagree  
                  | 2 – Disagree  
                  | 3 – Nor agree nor disagree  
                  | 4 – Agree  
                  | 5 – Highly agree  

Section 3: Demographic Information  

| Q – 1 | Gender of respondent | 1 – Male  
                  | 2 – Female  

| Q – 2 | Age of the respondents in year | 1 – Less than 11 Yrs  
                  | 2 – 11 Yrs to 20 Yrs  
                  | 3 – 21 Yrs to 30 Yrs  
                  | 4 – 31 Yrs to 40 Yrs  
                  | 5 – 41 Yrs to 50 Yrs  
                  | 6 – Above 50 Yrs  

| Q – 3 | Marital status of respondents | 1 – Single  
                  | 2 – Married  

| Q – 4 | Education of respondents | 1 – Lower than secondary school  
                  | 2 – Secondary school  
                  | 3 – Bachelor degree  
                  | 4 – Master degree  

5 – Doctoral degree  
6 – Others

| Q – 5  | Monthly family income of the respondents | 1 – Less than Rs. 10,000  
2 – Rs. 10,001 to Rs. 20,000  
3 – Rs. 20,001 to Rs. 30,000  
4 – Rs. 30,001 to Rs. 40,000  
5 – More than Rs. 40,000

| Q – 6  | No. of members in the family of respondents | 1 – Less than four  
2 – Four to Six  
3 – More than Six

| Q – 7  | No. of school going children in the family of respondents | 1 – No school going children  
2 – One  
3 – Two  
4 – Three  
5 – Four  
6 – More than four

4.9 Pre-testing the Questionnaire

The purpose of the pretest is to identify if the questionnaire is able to provide all the information as expected by the researchers (Aaker et al. 2004). The idea is to determine if the respondents are comfortable in answering all the questions, that there are no ambiguous questions, or that the time taken to complete the questionnaire is not too long.

For the current study, the questionnaire was developed by the researcher and the content and the format of the questionnaire were then discussed with the supervisor. At the end of the discussion, some changes were made in the questionnaire.

Five groups of the students (seven students in each group) who fit the characteristics of the intended sample for the current study were invited to answer to the questionnaire at the presence of researcher. They were given the questionnaire and completed it. They
were requested to comment on the underlying aspects to determine any difficulties they might have in understanding and completing this questionnaire. Comments were taken into account for further questionnaire modification. During this process, all these respondents reported that they had no difficulty in answering the statements. A couple of the respondents provided some recommendations to improve the layout of the questionnaire. Accordingly, the questionnaire layout was modified slightly to make it more user-friendly.

### 4.10 Operational Definitions

Twenty three variables (Seven demographic and sixteen psychographic) are identified in this study. The operational definitions of these variables are adopted from the previous studies and are presented in Table 4.4:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Operational Definition</th>
<th>Source</th>
</tr>
</thead>
</table>
| 1       | Gender    | Gender of the respondents  
Male or Female |        |
| 2       | Age       | Age of the respondents  
Less than 11; 11-20 years; 21-30 years; 31-40 years; above 40 years |        |
| 3       | Education | Level of education of respondents  
Less than secondary school, equivalent to secondary school, graduate degree, master degree, doctoral degree or other |        |
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 4 | Marital Status | Marital status of respondents  
Married or Unmarried |
| 5 | Monthly family income | Monthly family income of the respondents  
Less than Rs.10,000; Rs. 10,001 to 20,000;  
Rs. 20,001 to 30,000; Rs. 30,001 to 40,000;  
More than Rs. 40,000 |
| 6 | No. of members in the family | No of members in the family of respondents.  
Less than four, four to six, more than six |
| 7 | No of school going children in the family | No of school going children in the family of respondents.  
No school going children, one, two three, four, more than four. |
| 8 | Impact of sales promotion schemes | (Behavioral) impact of sales promotion schemes i.e. Timing Acceleration, stockpiling, brand switching, store switching, deal expansion, etc. |
| 9 | Price Consciousness | It can be referred to the degree to which consumer focuses exclusively on paying low prices.  
Lichtenstein, Ridgway & Netemeyer (1993) |
| 10 | Quality Consciousness | The degree to which consumers use a price of a product as a key indicator of the product quality. To the degree consumers perceive price in this way, they view higher prices more favorably because of  
Lichtenstein, Bloch and Black (1988);  
Lichtenstein, Ridgway and |
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td><strong>Value Consciousness</strong></td>
<td>Perceptions of increase in product quality for additional monetary outlays.</td>
<td>Netemeyer (1993)</td>
</tr>
<tr>
<td>12</td>
<td><strong>Impulsive Buying Behaviour</strong></td>
<td>The consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given</td>
<td>Zeithaml, V.A. (1988)</td>
</tr>
<tr>
<td></td>
<td><strong>Variety Seeking Behaviour</strong></td>
<td>A buying action undertaken without a problem previously having been consciously recognized or a buying intention formed prior to entering the store (Engel and Blackwell, 1982)</td>
<td>cf. Bayley, Geoff and Nancarrow, Clive (1998)</td>
</tr>
<tr>
<td>13</td>
<td><strong>Need for Innovation</strong></td>
<td>It can be defined as the tendency of individuals (consumers) to seek diversity in their choices of services or goods.</td>
<td>Kahn, Barbara (1995)</td>
</tr>
<tr>
<td>14</td>
<td><strong>Need for Cognition</strong></td>
<td>Degree to which an individual is relatively earlier in adopting an innovation than other members of his system.</td>
<td>Goldsmith, R.E and Hofacker, C.F. (1991)</td>
</tr>
<tr>
<td>15</td>
<td><strong>Market Mavenism</strong></td>
<td>NFC represents the tendency for individuals to engage in and enjoy thinking.</td>
<td>Cacioppo and Petty, 1982</td>
</tr>
<tr>
<td>16</td>
<td><strong>Market Mavenism</strong></td>
<td>Market mavens are defined as “Individuals, who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with customers and respond to requests from consumers for market information”.</td>
<td>Feick and Price, 1987</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Definition</td>
<td>Source</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>Store Loyalty</td>
<td>It refers to the tendency to reputedly shop at the same store for similar or other products.</td>
<td>Osman, M, Z (1993)</td>
</tr>
<tr>
<td>18</td>
<td>Brand Loyalty</td>
<td>The degree to which consumers commit to a brand and continue purchasing that brand without purchasing other brands.</td>
<td>Ailawadi et al. (2001)</td>
</tr>
<tr>
<td>19</td>
<td>Motivation to Confirm</td>
<td>The degree to which consumers care about attitudes of their reference groups. The degree to which respondents are concerned about how their friends or their family make judgments about them by the readymade garments that they buy.</td>
<td>Ailawadi et al. (2001)</td>
</tr>
<tr>
<td>20</td>
<td>Shopping Enjoyment</td>
<td>The degree to which customers enjoys shopping in shopping malls.</td>
<td>Ailawadi et al. (2001)</td>
</tr>
<tr>
<td>21</td>
<td>Shopping Plan</td>
<td>The degree to which consumer pre-plan their shopping and use shopping list during shopping.</td>
<td>Krishna et al. (1991); Ailawadi et al (2001)</td>
</tr>
<tr>
<td>22</td>
<td>Time Pressure</td>
<td>The degree to which consumers consider themselves busy.</td>
<td>Srinivasan and Ratchford (1991)</td>
</tr>
<tr>
<td>23</td>
<td>Perceived Financial Constraints</td>
<td>The degree to which consumer perceived themselves as having financial constraints</td>
<td>Ailawadi et al (2001)</td>
</tr>
</tbody>
</table>
4.11 Conclusion

This chapter discusses the research methodology adopted for this study. This is briefly described below:

1. **The Universe:** The population comprises of customers who has purchased readymade garments in the various shopping malls of four cities of Gujarat, i.e., Ahmedabad, Rajkot, Surat and Vadodra.
2. **Sampling technique:** Convenience sampling
3. **Sample size:** 518
4. **Method of data collection:** Personal interview with structured questionnaire.
5. **Data Analysis:** Data collected will then be analyzed using statistical techniques and structural equation modeling. Statistical measures used in data analysis are confirmatory factor analysis and structure equation modeling.
6. **Software used for data analysis:** Statistical Package for Social Study (SPSS) version 12 is used for data preparation and data analysis. AMOS version 16 is used for conducting confirmatory factor analysis and structural equation modeling.