CHAPTER - 3

METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research methodology used in this study is described and the research propositions relating to the objectives of the study are stated. Methods available for collecting data and the characteristics of the sample group are set out in this chapter. The main theme of the study is described as In-Store Advertising, Promotions and its impact on consumers purchase decisions in Chennai. In addition to that the relevant variables for the presence study, the structured questionnaire design and techniques used to analyse the data are stated.

3.2 RESEARCH DESIGN

Research Design is the overall plan for conducting the research in order to find out the answers for the research questions / hypotheses set in the beginning. It should be comprehensive and to include all the relevant aspects for conducting the research at a reasonable cost and time. This includes the sampling technique, the collection of data through various instruments, proper statistical tools to do the data analysis and interpreting the same. This study is basically an explorative one, wherein the primary data is sought through a structured questionnaire to answer the questions based on the relevant hypothesis.

3.3 SOURCES OF DATA

The survey method was deployed in this study to gain insight and knowledge as how the consumer perceive the in store advertisement and stores layout influences to purchase the products from the stores and also the stores layout could use for the consumers to identify the location for the various branded products available in the departmental stores. The primary data of the study was collected through a structured questionnaire and the relevant secondary data was collected through journals, magazines, newspapers, research articles, published information and details from websites of the retail stores were taken for study.
3.3.1 Selection of Respondents

In India, there are four major metropolitan cities present, out of which Chennai is located in South India. Chennai is a vast growing city in terms of business, employment; per capita income and purchasing power of consumers in growing economic scenario. In addition to that Chennai represents the good section of respondents belonging to different income level and qualified group. Therefore the respondents residing in Chennai were taken for the study. Both male and female consumers were approached and requested to fill out the questionnaire, irrespective of their age, educational qualifications, occupation, monthly income, location etc. Each of the research subjects responded to a questionnaire on demographical details and other variables related to the study.

3.3.2 Selection of Retail Stores

The retail stores were chosen based on their volume of business and spread of their business locations across Chennai. The leading retail stores who are in the field for more than 15 years of retail service in Tamil Nadu and other states were chosen in Chennai. The retail stores selection for the study was also based on volume of the operations, reputation, size of the shop and location of the shop in heart of the city.

3.3.3 Sampling Design

It is the theoretical basis and the practical means by which data are collected so that the characteristics of a population can be inferred with known estimates of error. The following subdivisions explain the sampling design of this thesis.

3.3.3.1 Selection of Sampling Area

Chennai is the fourth largest metropolis in India. It has got the mix of all range of people, spreading from school level to post graduate / professional level having different background in terms of their income, age occupation etc., Also it has the migrant residents moved from different parts of India, say, North, East and West, representing a population across India. This research has been carried out in Chennai as it is a place with different profiles of the consumers available and thus can be used to arrive at meaningful conclusion regarding the perception of the consumers towards stores advertisement and stores layout.
3.3.3.2 Sampling Technique

The sampling technique used in this study is convenience sampling. Convenience sampling is a type of non-probability sampling which involves the sample being drawn from that part of the population which is close to hand. That is, a sample population selected because it is readily available and convenient. It may be through meeting the person or including a person in the sample when one meets them or chosen by finding them through shopping behaviour at shopping place.

3.3.3.3 Sample Size

As the population is infinite but huge in numbers convenience sampling was adopted for the study. There are several approaches to determining the sample size. These include a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulae to calculate a sample size. For populations that are large, Cochran developed the equation given below to yield a representative sample for proportions:

$$n_0 = \frac{Z^2pq}{e^2}$$

which is valid where $n_0$ is the sample size, $Z^2$ is the abscissa of the normal curve that cuts off an area at the tails (1-equals the desired confidence level, eg. 95% ) is the desired level of precision, $p$ is the estimated proportion of an attribute that is present in the population, and $q$ is 1-$p$. The value of $Z$ is found in statistical tables which contains the area under the normal curve. In this study, we presume that population size is infinite and unknown; the formula was applied to know the sample size, and found the sample size 416 meets the requirements.

3.3.4 Questionnaire

A structured questionnaire was administered to collect the primary data. The Liker’s 5 point scale method was found suitable for the study, as it has a good viability and most importantly it is easy for the respondents of varying educational level to understand and respond. This is also the most widely used method among the researchers and easy to
construct. However the researcher is aware of the limitations of the tool as it may not have
equal appearing intervals and requires validation of the data before analysis. However
researchers by convention treat is as an interval scale, with due validation of the data, the
same being observed in this study also.

3.3.5 Pre-Test

The pretesting or pilot study was conducted with an idea of testing the reliability of
the designed questionnaire. A sample of 80 respondents from Chennai both male and
female consumers were selected for this purpose. Based on the responses and views of the
participants, confusing as well as difficult questions were slightly modified to ease the
responses and the questionnaire was standardized. The prepared questionnaire was tested
for reliability using Cronbach’s Alpha, which is discussed subsequently. The non-response
bias checks were done initially by the researcher from the survey carried out and was
deemed as acceptable as the calculated final response rate was high (84%)

3.4 RELIABILITY

The Cronbach’s Alpha test was applied to find the reliability of the following
factors and the results were given in parentheses: Appealing (0.765), Honesty (0.782),
Distasteful (0.812), Credible (0.712), Convincing (0.959), Creative (0.901), Attractive
(0.958), Believable (0.966), Memorable (0.956), Professional (0.833), Funny(0.955),
Attentive (0.876), Successful (0.901) and Overall (0.924).

3.5 VARIABLES STUDIED

The variables are basically grouped into three parts, namely demographic,
expectation and satisfaction. A total of eight variables in demographic were studied, such
as gender, age, educational qualifications, occupation, monthly income, number of years of
purchase and frequency of purchase

The second part of the study contains the perception of the consumers on stores
advertisement and stores layout. Videos, In-store TV, Pop Displays, PictureSlides,
TouchScreenKiosks, Digitalsignage, Danglers, Mannequins, Portable Displays, Displays
on Shopping Carts baskets, Product display, Banners/Posters, Food, Cleaning Products,
Soaps, Cosmetics, Kitchen Appliance, Crockery, Clothes, Shoes.
3.6 HYPOTHESES OF THE STUDY

A hypothesis is an assumption to be tested. The statistical testing of hypothesis is the most important technique in statistical inference. Hypothesis tests are widely used in business and industry for making decisions. It is here that probability and sampling theory plays an ever-increasing role in constructing the criteria on which business decisions are made.

The Hypothesis is listed here in the order in which the analysis has been executed. The fundamental idea was to look at the impact of demographic variables on in-store advertising and also to study the benefit of in-store advertisements, the suitability of different in-store advertising media, the parameters that people recall about the in-store advertisements, the preferred Advertising message, the quality of services provided in convenience stores, store offers, adjectives used to describe the in-store advertisements, and other issues that impact the study.

The hypotheses were framed, keeping in mind the objectives of the study.

Ho = There is no significant difference between genders and that the advertisement is attractive.

Ho = There is no significant difference between gender and that communication is done properly

Ho: There is no significant difference between genders and perception about long term period of warranty

Ho: There is no significant difference between genders wise opinion about point of purchase display’s suitability as an in-store media.

Ho: There is no significant difference in the mean ranks of the genders in ranking the adjectives describing the last seen in store advertisement

Ho: There is no significant difference in the mean ranks of the genders, with regard to their opinion about the adjectives describing the last seen in store advertisement.

Ho: There is no significant difference between mean ranks of the various parameters related to the last recalled in store advertisement.
Ho: There is no significant difference between mean ranks of preferred advertisement messages.

Ho: There is no significant difference between mean ranks and different kinds of in-store Advertisements that are most suitable.

Ho – There is no significant difference in the mean rank of genders, with regard to their agreement on the qualities of the last seen in-store advertisement.

Ho: There is no significant difference between mean ranks of the various parameters related to the last recalled in store advertisement

Ho: There is no significant difference between mean ranks of the Quality of service provided in convenience stores”

Ho: There is no significant difference between mean ranks of Benefits of In-Store Advertisements

Ho: There is no significant difference between observed and expected frequencies of cost of products and the respondents purchase decision, because of in-store advertisements.

Ho: There is no significant difference between observed and expected frequencies of involvement of respondents and their purchase decision

Ho: There is no significant difference between observed and expected frequencies of in-store offers and motivation to purchase products

Ho: There is no significant difference in the cost of product purchased based on the kind of Advertisement

Ho: There is no significant difference between age wise respondents and how beneficial they find the idea of in-store advertisements

H0: There is no significant difference between age groups and whether the advertisements make it easier to find what they want.

H0: There is no significant difference between education groups and their opinion about two benefits of in-store advertisements, namely:

1. To provide more information about products features, benefits, etc
2. Helps the respondent to recognize potential/latent needs.

H0: There is no significant difference in importance of design technology of pop display between the education groups.

3.7 FRAMEWORK OF DATA ANALYSIS

To analyse the data collected on perception of consumers towards the in store advertisement and store layout, the following statistical tools have been applied for arriving out the relevant inferences on the data.

Statistical Tools used

3.7.1 T Test

The t-test is the most commonly used method to evaluate the differences in means between two groups. In this study, the t test is used to find the difference between genders with reference to various factors of level of expectation and level of satisfaction.

3.7.2 ANOVA

Analysis of variance is used to compare means and variability of more than two groups. In this study, the ANOVA is used to find the difference between age, educational qualifications, occupations, monthly income, number of products and timing of purchase.

3.7.3 Mann-Whitney U Test

Mann-Whitney U test a non-parametric test which is used to compare two groups by ranking the observations. In this study, the Mann-Whitney U test is used to find the difference between genders with reference to various factors of level of expectation and level of satisfaction within the respondents.
3.7.4 Kruskal Wallis Test

The Kruskal–Wallis one-way analysis of variance by ranks (named after William Kruskal and W. Allen Wallis) is a non-parametric method for testing equality of population medians among groups. It is identical to a one-way analysis of variance with the data replaced by their ranks. Kruskal Wallis Test is used to compare means and variability of more than two groups.

In this study, the Kruskal Wallis Test is used to find the difference between age, educational qualifications, occupations, monthly income, number of times and product purchased with respect to various factors of level of expectation and level of satisfaction within the respondents.

3.7.5 Wilcoxon Signed Rank Test

The Wilcoxon Signed Rank Test is a non-parametric statistical hypothesis test, used to find out any significant difference between paired observations. In this study the test is used to compare and find out four factors in expectation and satisfaction.

3.7.6 Factor Analysis

Factor analysis is a statistical method used to describe variability among observed variables in terms of a potentially lower number of unobserved variables called factors. In other words, it is possible, for example, that variations in three or four observed variables mainly reflect the variations in a single unobserved variable, or in a reduced number of unobserved variables. Factor analysis searches for such joint variations in response to unobserved latent variables. The observed variables are modeled as linear combinations of the potential factors, plus "error" terms. The information gained about the interdependencies between observed variables can be used later to reduce the set of variables in a dataset. In this study principal component analysis with varimax rotation is done to reduce the variables in satisfaction into factors.

3.8 LIMITATIONS OF THE STUDY

- The study is a sample based study and the inferences derived from the analysis and interpretation are expected to be representative of the total population. However the study is subject to following limitations:
• The area of the study is limited to city of Chennai, State of Tamil Nadu, India. Hence the sample may have the limitations pertaining to the area, tradition, custom and culture of the people in that place.

• The respondents belong to the consumers in the retail stores for study so study was undertaken in the branded shops.

• The survey was conducted during the first half of the year 2012, so the time might be a constraint and consumers mind set is varying from time to time.