CHAPTER 4

RESEARCH METHODOLOGY

This chapter presents a comprehensive view of the methodology adopted for the present investigation undertaken to know the globalization in the context of India, consumer’s behavior, factors influencing consumer’s behavior, changes in the consumer behavior, socio-economic segmentation of Indian consumer, and classification of goods in terms of their durability and changes in consumer behavior of middle class for durable goods.

This chapter is structured as follows:

4.1 Research problem
4.2 Developing research objectives and working hypothesis
4.3 Description of study area
4.4 Research design
4.5 Data collection
4.6 Tools of analysis
4.7 Scope and the significance of the study
4.1 RESEARCH PROBLEM

Globalization has been a major variable behind the development of the market changes in India. Lot of academic literature are documented on various aspects like globalization and consumer buying behavior of middle class segment with respect to durable goods but majority of the researches were conducted in the major metropolitan cities of India and foreign countries, no such studies is conducted in Lucknow city. The present study aims to minimize this gap in existing literature. Many researches were conducted on the impact of globalization on consumer buying behavior but due to the volatility in the buying behavior of consumer there is a continuous need of researches to monitor the changes. Globalization is a major factor which impacts on the buying behavior of consumers in middle class segment.

The current study is expected to throw light on the impact of globalization on consumer buying behavior of middle class segment with reference to durable goods in Lucknow city. In the study research area is Gomti nagar and Indira nagar which is selected due to its high density population of middle class.

4.2 DEVELOPING RESEARCH OBJECTIVES AND WORKING HYPOTHESIS

This research is aimed to achieve the following objectives:-

- To find out an area densely populated with middle class segment.
- To understand the process of globalization in India.
- To understand the decision process of middle class segment involved in purchasing of durable goods.
• To analyze the factors affecting purchase of consumer durables.
• To find out the changes in consumer buying behaviour for middle class segment due to globalization.
• To analyze the brand preference of consumers for consumer durable goods with respect to multi-national brands.
• To study brand preference of consumers towards organized & unorganized outlet for the consumer durable goods.
• To find out the latent effect of globalization on consumer attitudes.

Hypotheses:

• **Hypothesis 1:-**

Null Hypothesis (H₀): The middle class household is not a significant market for consumer durables.

Alternative Hypothesis (H₁): The middle class household is a significant market for consumer durables.

• **Hypothesis 2:-**

Null Hypothesis (H₀): There is insignificant difference in the consumption pattern of consumer durables since globalization of Indian economy.

Alternative Hypothesis (H₁): There is significant difference in the consumption pattern of consumer durables since globalization of Indian economy.
• **Hypothesis 3:-**

Null Hypothesis (H₀): The electronic media have not significantly influenced young consumer’s demands.

Alternative Hypothesis (H₁): The electronic media have significantly influenced young consumer’s demands.

• **Hypothesis 4:-**

Null Hypothesis (H₀): The digital media have not assisted in the growth of a consumer mind set.

Alternative Hypothesis (H₁): The digital media have assisted in the growth of a consumer mind set.

• **Hypothesis 5:-**

Null Hypothesis (H₀): The middle class people do not spend money for the comfort items.

Alternative Hypothesis (H₁): The middle class people spend money for the comfort items.

• **Hypothesis 6:-**

Null Hypothesis (H₀): The exposure to globalization has no significant impact on conspicuous consumption.

Alternative Hypothesis (H₁): The exposure to globalization has a significant impact on conspicuous consumption.
4.3 DESCRIPTION OF STUDY AREA

Lucknow District is situated in the state of Uttar Pradesh. Lucknow is the Capital city of the state of Uttar Pradesh and the largest city in Uttar Pradesh. This metro city is the administrative headquarters of Lucknow District and Lucknow Division. Lucknow has always been known as a multicultural city, and flourished as a cultural and artistic capital of North India in the 18th and 19th centuries. Lucknow elevation is 123.45 mts. above sea level. It is situated on 26.30 & 27.10 North latitude and 80.30 & 81.13 East longitude. Lucknow covers an area of 2528 km2. It is surrounded on the eastern side by District Barabanki, on the western side by district Unnao, on the southern side by Raebareli and on the northern side by Sitapur and Hardoi districts. City is located on the northwestern shore of Gomti river, which flows through the city.

The economy of Lucknow city was earlier based on the tertiary sector with about majority of the workforce being employed as government servants. Large-scale industrial establishments are low compared to other north Indian state capitals like New Delhi and Chandigarh. Currently the economy is growing with the contributions from more professionals in the fields of IT, Manufacturing & Processing and Medical/Bio-Technology. Business-promoting institutions viz. CII and EDII have a presence in city. On October 2010, Lucknow Ranked 6th among all the cities in India for fastest job-creation, City has steadily grown into a competitive IT centre.

Lucknow has a great potential in handicraft sector and it accounts for 60% of the total exports from the state. The state has emerged as a hub for IT industries including software, BPOs and electronics. The major export items from are marble products, textiles,
handicrafts, art pieces, gems and jewellery, textiles, electronics, software, computer, hardware & software, apparel, brass work, silk, leather and leather goods, glass items, art metal, chemicals. City has promoted Public and Private Partnerships in big way in various sectors such as power, roads, expressways and education.

The area of the present study is selected from Gomti nagar and Indira nagar in Lucknow city. Consumers in the study area are highly influenced by ever changing environment of the city. Hence, most of the consumers of the study area are adopting the consumption habits of the metropolitan consumers. In case of durable goods, the consumers are switching to purchase durable goods. Most commonly available and used durable goods in the study area are Refrigerators, Washing machines, Microwave ovens, Televisions, Air conditioners, Music System, Camcorder/ Digital camera.

Therefore, considering the growing market and popularity of durable goods in the area, an attempt is made to study the buying behavior of consumers towards durable goods especially middle class segment of the society. The area of the present study is selected from Gomti nagar and Indira nagar in Lucknow city.

4.4 RESEARCH DESIGN

A research design is a map developed to guide the researcher. It is a part of planning stage of research, a blue print for the collection measurement and analysis of data. Claire Selltiz (1962) has described, “A research design is the arrangement of conditions for
collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.” There are various designs which are used in research, all with specific advantages and disadvantages. Which one the researcher uses, depends on the aims of the study and nature of the phenomenon. Types of research design are as follows:

- Descriptive Research includes surveys and fact finding enquiries of different kinds. The measure purpose of descriptive research is description of the state of affairs and it exists at present. The main characteristic of this method is the researcher has no control over the variable. This research design has enough provision for protection against bias and maximizes reliability, with due concern for the economical completion of the research study.

- The objective of exploratory research is development of hypothesis rather than their testing. It attempts to clarify why and how there is relationship between two aspects of a situation or phenomenon. The type of research attempt to explain the reason for the phenomenon, which descriptive study only observed.

- Experimental research design is often uses in natural science but it is different in social sciences. Human behavior cannot be measured through test tubes and microscopes. The social researcher use a method of experiment in that type of research design. One group is subjected to experiment called independent variables while other is considered as control group called dependent variable. The result obtained by the comparison of both the two groups. Both have the cause and effect relationship between each other.
In the ‘Diagnostic’ research design the researcher wants to know about the most causes of the problem. The researcher also describes the factors responsible for the problematic situation. It is a problem solving research design that consists mainly:

- Emergence of the problem
- Diagnosis of the problem
- Solution for the problem
- Suggestion for the problem solution

Research design for the current research is Exploratory-cum-Descriptive in nature. As initial elasticity to precisely defining the problem and find out the factors that influence middle class segment, is provided by exploratory research design. For this purpose pilot survey has been conducted on thirty persons who had experience. After developing the factors, a structured sequenced questionnaire has been prepared which consists of thirty two questions that were used for the collection of primary data. All the questions asked in this questionnaire are close ended.

Based on frequent use of durable goods, the products such as Refrigerators, Washing machines, Microwave ovens, Televisions, Air conditioners, Music System, Camcorder/ Digital camera were selected after discussion with the local consumers of the study area about the consumption of durable goods, which are either purchased from the organized and unorganized retail outlets as well as about the brands available and preferred in the study area.
• **Sampling Technique**

In the field studies, a due consideration of time and cost is at most important. And leads to a selection of respondents constitute what is technically called a “Sample” and the selection process is called “Sampling technique”. Sampling technique can be of two types: - Probability sampling and Non probability sampling method. In the research, convenience sampling technique is used which comes under non probability sampling.

• **Sampling Design**

- **Universe:** - A sample design is a definite plan for obtaining a sample from a given population. In this study the universe is middle class segment of Lucknow city.

- **Sample Unit:** - The sampling unit justifies the question who to be surveyed. A sampling unit is a single member of the sample. In this research the sampling units are individual consumers of middle class who have bought durable goods.

- **Sample Size:** - Sample size refers to the number of individual pieces of data collected in a survey. The sample size plays an imperative role in empirical study in which the goal is to make inferences about a population from a sample. In the study 300 sample size is considered for conducting the field survey.

4.5 DATA COLLECTION

To achieve the objectives of the study both primary and secondary sources of information has been gathered. For attaining the goal of research primary data is collected
Primary Data

The primary data are those which are collected fresh and for the first time and thus happen to be original in character. There are number of methods of collecting primary data that is observation, interview and questionnaire. In this study for the collecting of primary data the questionnaire method is adopted. For the purpose of designing the questionnaire, a pilot survey was conducted on thirty people which consisted of open and close ended questions and after developing the factors from pilot survey a questionnaire was prepared which had a series of thirty-two close ended questions. The scale that was used in questions of questionnaire was based on five point Likert scale, ranking and some special type of ranking orders. As this type of structure can provide both favourable and unfavorable attitude towards the object to which the people is asked to react. The people had to select any one of the given option that is from strongly agree to strongly disagree and the scores of 1, 2, 3, 4, and 5 were given to the above scales. Later scores were added and the mean score was calculated. Based on the mean score inference was drawn for factors influencing brand preferences and reasons for not using the particular brand of durable goods. This type of questionnaire is relatively easy to construct than others and give people an idea about what the researcher expects from them and this method is also very common method utilized for the studies related to social sciences to find out the attitude and perception of consumer. For collecting the data from questionnaire, it had been filled by the respondents and there replies were collected and
purpose of the investigation were also been provided to omit the problems of some respondents who were unable to understand the implications of a particular question, concept and difficult terms.

- **Secondary Data**

  The secondary data are those which have already been collected by someone else and which have already been passed through the statistical process. For accomplishing the research objectives of study, secondary data is also gathered. These data is collected from various past studies and other sources like magazines, newspapers, and websites which qualified as reliable.

**4.6 TOOLS OF ANALYSIS**

The collected data were tabulated and analyzed. The tools used for analysis are as follows:

- **Percentage Analysis**

  In statistical tools, percentage analysis is widely used in the interpretation of primary data. It deals with the number of respondents response to a particular question is percentage arrived from the total population selected for the study. The collected data are represented in the form of tables and graphs in order to give effective visualization so that comparison can be done. It is one of the simple forms of analysis which is very easy for
anyone to understand the outcome of the research.

**Formula for calculating Percentage:**

\[
\text{Percentage} = \frac{\text{Number of respondents}}{\text{Total number of respondents}} \times 100
\]

Percentage analyses were used to study the socio-economic characteristics of the sample respondents like age, educational status, occupation and, family size and type, Consumer awareness towards and durable goods. The buying behavior of consumers for durable goods, purchase decision, place of purchase, frequency of purchase and quantity per purchase were also analyzed using percentage analysis.

- **Weighted arithmetic mean**

One of the limitations of the arithmetic mean is that it gives equal importance (weights) to all the items in the series. But there are cases where the relative importance of all the items is not equal. Weighted arithmetic mean is the correct tool for measuring the central tendency of the given observations in such cases. Here, the term weight stands for the relative importance of different items or observations. In other words, importance assigned to different items with the help of figures according to priority is known as weights.

**Formula for calculating Weighted arithmetic mean:**

\[
\text{Weighted mean} = \frac{\sum WX}{\sum W}
\]

Here, \(W\) = the weights attached to values of the variable
• **Chi-square test**

Chi – Square is an imperative non-parametric test. In this study Chi – Square test is selected on the basis of following features –

- This test is based on frequencies and not on the parameters like mean and standard deviation.
- It is used for testing the hypothesis and it is not for calculating the estimation.
- It is also used with several classes in the complex contingency table
- In this no rigid assumption are necessary in regard to the type of population and there is also no need of parameter values and in this relatively less mathematical detail are involved.

**Formula for calculating Chi – Square (χ²):**

\[ \chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \]

Where,

- \( O_{ij} \) = observed frequency of the cell in \( i \)th row and \( j \)th column.
- \( E_{ij} \) = expected frequency of the cell in \( i \)th row and \( j \)th column.

If the calculated value of \( \chi^2 \) is equal to or exceeds the tabulated value, the difference between the observed and expected value of \( \chi^2 \), then difference is considered as insignificant. Degree of freedom plays a vital role in the calculation of Chi – Square distribution, which is calculated as follows:
Degree of freedom = (c -1) * (r -1)

Here c = number of columns, r = number of rows

4.7 SCOPE AND THE SIGNIFICANCE OF THE STUDY

Before the liberalization of the Indian economy, only a few companies like Kelvinator, Godrej, Alwyn, and Voltas were the major players in the consumer durables market, accounting for no less than 90% of the market. Then, after the liberalization, foreign players like LG, Sony, Samsung, Whirlpool, Daewoo, and Aiwa came into the picture. Today, these players control the major share of the consumer durables market. The consumer durable market in India is growing very fast due to rise in living standards, easy access to consumer finance, and wide range of choice, as many foreign players are entering in the market.

With the increase in income levels, easy availability of finance, increase in consumer awareness, and introduction of new models, the demand for consumer durables has increased significantly. Products like washing machines, air conditioners, microwave ovens, color televisions (C-TV) are no longer being considered to be luxury items. Consumer durables sector is characterized by the emergence of MNCs, exchange offers, discounts, and intense competition. The market share of MNCs in consumer durables sector is 65%. MNC's major target is the growing middle class of India. They offer superior technology to the consumers whereas the Indian companies compete on the basis of firm grasp of the local market, their well acknowledged brands, and hold over wide distribution network.
However, the penetration level of the consumer durables is still low in India. Indian consumer durables market used to be dominated by only a few domestic players like Godrej, Voltas, Allwyn and Kelvinator. But post liberalization, many foreign companies have entered into Indian market dethroning the Indian players and dominating Indian market the major categories being CTV, Refrigerator, Microwave Oven and Washing Machines. India being the second largest growing economy with a huge middle class consumer base has resulted in production of consumer durables as one of the fastest growing industries in India. LG and SAMSUNG the two Korean companies have been maintaining the lead in the market with LG being leader in almost all the categories. The CTV segment is expected to be the largest contributing segment to the overall growth of the industry. The rising income levels, double-income families and consumer awareness are the main growth drivers of these industries.

Due to globalization consumer durable industry is growing at a very fast rate. Through globalization, companies can now easily launch premium products to satisfy the need of middle class consumers and can also provide better after-sales services to their consumers. These days’ companies not only aim to sell their products but they want to establish good relationships with their customers. They try to make their products according to the customers’ requirement. To fulfill this requirement; these companies manufacture their products according to the segmentation of the market and try to make it affordable to every customer so as to satisfy them. The acceptance of credit system is increasing rapidly in the Indian market. There are many banks which offer loans, and their credit policies are liberal.
This study will in all probability be useful for the consumer durable companies to better understand the buying behavior of middle class segment in Lucknow city. It will also be useful for society as a whole in order to understand the phenomenon of globalization and its impact. The study emphasizes on the factors affecting purchase of consumer durables. This study also examines brand preference of consumers for consumer durable goods. A thorough review is done towards the preference of consumers towards organized and unorganized outlet for the purchase of consumer durable goods. The current study will definitely be a useful addition to the existing literature in this field.