CHAPTER-4
RESEARCH METHODOLOGY

Sr. No. Outline of the Chapter

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**Title of the problem:** “A study of Consumer Behavior towards Selected Electronic Goods With reference to North Gujarat”

### 4.1 Introduction:

“All progress is born by inquiry, doubt is often better than overconfidence, for it leads to inquiry and inquiry leads to invention”

At any moment of time, there are hundreds of thousands of products being manufacture and marketed. These products have marketed with a view to satisfy various human needs. Broadly speaking the activities undertaken by an organization towards the satisfaction of human needs are called marketing activities. A market is any one of a variety of different systems, institutions, procedures, social relations and infrastructures whereby person’s trade, and goods and services have exchanged, forming part of the economy. It is an arrangement that allows buyers and sellers to exchange things. Markets vary in size, range, geographic scale, location, types and a variety of human communities, as well as the types of goods and services traded.

Marketing is an integrated communication based process through which individuals and communities discover; the products and services of others may satisfy existing and newly identified needs and wants.

Many of the social sciences, particularly psychology, sociology and economics, influence marketing. Anthropology and neuroscience are also small but growing influences. Market research underpins these activities through advertising; it has also related too many of the creative arts. The marketing literature is also infamous for reinventing itself and its vocabulary according to the times and culture.

Marketing management, as the name indicates is a combination of two words marketing and management. Marketing is an exchange process directed at satisfying consumers’ needs and wants, while management means to plan, to organize, to co-ordinate, to direct, to control and so on. Marketing management is an application of managerial functions in the field of marketing.

Consumer behavior is very difficult to know because people are changing their decisions anytime to purchase goods or service. Therefore, it is an important task to know the consumer behavior for the seller.
Consumer behavior is the study of when, why, how, where, and what people buy or not buy products. It blends elements from psychology, sociology, social psychology, anthropology, and economics. It tries to understand, the consumer decision-making process, either personally or in groups. Consumer behavior study has based on consumer buying behavior, with the customer playing the three distinct roles of user, player and buyer. Relationship marketing is an intellectual asset for customer behavior analysis, as it has a keen interest in the re-discovery of the true meaning of marketing through the re-affirmation, of the importance of the customer or buyer.

Thus, the study of consumer behavior is the study of how individuals make decisions to spend their available reasons, money-time, and effort –on consumption related items.

It is very difficult to know the consumer behavior and its buying decision making process.

### 4.2 Rationale of the study:

Consumer behavior is very complicated concept and it is very difficult to understand comprehensively. Because it has affected by a variety of factors and buying, decision process is very long and may be different from situation to situation.

Presently selected electronic goods have shown remarkable growth in market. Many Indian and foreign manufacturer were producing selected electronic goods. Therefore, there was tough global competition in electronic goods. Hence, for marketing selected electronic goods, it is emerging need to understand consumer behavior towards selected electronic goods.

Gujarat state has shown rapid industrial development and many global selected electronic goods manufacturer have very high market growth rate. Gujarat state has divided into five zones- Central Gujarat, South Gujarat, East Gujarat, West Gujarat, and North Gujarat. As far as North Gujarat region of Gujarat state is concerned, more rural and semi-urban areas, typical language, many regional differences etc. characterize it. The researcher belongs to North Gujarat area. Therefore, the researcher has selected North Gujarat area for the present research study.

In the present scenario, generally every family has electronic product like television, refrigerator, DVD Player etc. Hence, the researcher has selected six
electronic products for the present research study. Consumer behavior has affected by many varying factors. So, the need of present research study lies in answering questions like how age, occupation, gender, income, education, type of house, and residential area have affected consumer behavior towards selected electronic goods in urban, semi-urban and rural areas of North Gujarat.

The present study has answer opportunities and challenges in the field of selected electronic goods with special reference to North Gujarat. The present study has made significant contribution to understand consumer behavior and his buying decision making process.

4.3 **Objectives of the study:**

1. To study theoretical conceptual frame work of Indian economy and theoretical conceptual of marketing management.
2. To study and review Indian electronic industry.
3. To study profile of North Gujarat.
4. To study possession of selected SEGs by respondents.
5. To examine cross relationship between general variables of respondents and possession of SEGs.
6. To study reasons for using SEGs and to rank the reasons.
7. To study reasons for not using SEGs and to rank the reasons.
8. To study sources of information for purchasing SEGs and ranking to the source.
9. To study the best time for purchase of SEGs and ranking to best time.
10. To study important factors affecting purchase decision of SEGs and ranking to the factors.
11. To study cross tabulation of demographic profile of respondents with their opinions about various reasons for using SEGs.
12. To study cross tabulation of demographic profile of respondents with their opinion about various reasons for not using SEGs.
13. To put forward overall findings and suggestions with a view to make consumer behavior knowledge of SEGs more and more comprehensive with special reference to North Gujarat.
4.4 Hypothesis of the study:

H₀₁: There is no significant difference between the gender of respondents and their opinion - possession of electronic goods gives us high status in society

H₀₂: There are no significant differences between age of respondents and their opinion - Possession of electronic goods gives us high status in society

H₀₃: There is no significant difference between the education of respondents and their opinion - possession of electronic goods gives us high status in society

H₀₄: There is no significant difference between the income of respondents and their opinion - possession of electronic goods gives us high status in society

H₀₅: There is no significant difference between the occupation of respondents and their opinion - possession of electronic goods gives us high status in society

H₀₆: There is no significant difference between the gender of respondents and their opinion - Use of electronic goods, enhances the capability of homemaker.

H₀₇: There is no significant difference between the age of respondents and their opinion - Use of electronic goods, enhances the capability of homemaker.

H₀₈: There is no significant difference between the education of respondents and their opinion - Use of electronic goods, enhances the capability of homemaker.

H₀₉: There is no significant difference between the income of respondents and their opinion - Use of electronic goods enhances the capability of homemaker.

H₀₁₀: There is no significant difference between the occupation of respondents and their opinion - Use of electronic goods, enhances the capability of homemaker.

H₀₁₁: There is no significant difference between the gender of respondents and their opinion - use of electronic goods saves the time
H₀12: There is no significant difference between the age of respondents and their opinion - use of electronic goods saves the time
H₀13: There is no significant difference between the education of respondents and their opinion - use of electronic goods saves the time
H₀14: There is no significant difference between the income of respondents and their opinion - use of electronic goods saves the time
H₀15: There is no significant difference between the occupation of respondents and their opinion - use of electronic goods saves the time
H₀16: There is no significant difference between the gender of respondents and their opinion - Use of electronic goods spares your extra time in other important activities.
H₀17: There is no significant difference between the age of respondents and their opinion - Use of electronic goods spares your extra time in other important activities.
H₀18: There is no significant difference between the education of respondents and their opinion - Use of electronic goods spares your extra time in other important activities.
H₀19: There is no significant difference between the income of respondents and their opinion - Use of electronic goods spares your extra time in other important activities.
H₀20: There is no significant difference between the occupation of respondents and their opinion - Use of electronic goods spares your extra time in other important activities.
H₀21: There is no significant difference between the gender of respondents and their opinion - Use of electronic goods saves time; hence, homemaker can better the health of herself and her family members
H₀22: There is no significant difference between the age of respondents and their opinion - Use of electronic goods saves time; hence, homemaker can better the health of herself and her family members
H₀23: There is no significant difference between the education of respondents and their opinion - Use of electronic goods saves time; hence, homemaker can better the health of herself and her family members
H₀24: There is no significant difference between the income of respondents and their opinion - Use of electronic goods saves time; hence, homemaker can better the health of herself and her family members
$H_025$: There is no significant difference between the occupation of respondents and their opinion - Use of electronic goods saves time; hence, homemaker can better the health of herself and her family members.

$H_026$: There is no significant difference between the gender of respondents and their opinion - Use of electronic goods saves daily household expenditure.

$H_027$: There is no significant difference between the age of respondents and their opinion - Use of electronic goods saves daily household expenditure.

$H_028$: There is no significant difference between the education of respondents and their opinion - Use of electronic goods saves daily household expenditure.

$H_029$: There is no significant difference between the income of respondents and their opinion - Use of electronic goods saves daily household expenditure.

$H_030$: There is no significant difference between the occupation of respondents and their opinion - Use of electronic goods saves daily household expenditure.

$H_031$: There is no significant difference between the gender of respondents and their opinion - due to use of electronic goods, surplus time is passed in the house, so need not to go outside to spare our leisure time.

$H_032$: There is no significant difference between the age of respondents and their opinion - due to use of electronic goods, surplus time is passed in the house, so need not to go outside to spare our leisure time.

$H_033$: There is no significant difference between the education of respondents and their opinion - due to use of electronic goods, surplus time is passed in the house, so need not to go outside to spare our leisure time.

$H_034$: There is no significant difference between the income of respondents and their opinion - due to use of electronic goods, surplus time is passed in the house, so need not to go outside to spare our leisure time.

$H_035$: There is no significant difference between the occupation of respondents and their opinion - due to use of electronic goods, surplus time is passed in the house, so need not to go outside to spare our leisure time.
H₀₃₆: There is no significant difference between the gender of respondents and their opinion - use to increase of income new electronic goods are purchased.

H₀₃₇: There is no significant difference between the age of respondents and their opinion - use to increase of income new electronic goods are purchased.

H₀₃₈: There is no significant difference between the education of respondents and their opinion - use to increase of income new electronic goods are purchased.

H₀₃₉: There is no significant difference between the income of respondents and their opinion - use to increase of income new electronic goods are purchased.

H₀₄₀: There is no significant difference between the occupation of respondents and their opinion - use to increase of income new electronic goods are purchased.

H₀₄₁: There is no significant difference between the gender of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₂: There is no significant difference between the age of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₃: There is no significant difference between the education of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₄: There is no significant difference between the income of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₅: There is no significant difference between the occupation of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₆: There is no significant difference between the gender of respondents and their opinion - not buying electronic goods creates a traditional image in the society.
H₀₄₇: There is no significant difference between the age of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₈: There is no significant difference between the education of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₄₉: There is no significant difference between the income of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₅₀: There is no significant difference between the occupation of respondents and their opinion - not buying electronic goods creates a traditional image in the society.

H₀₅₁: There is no significant difference between the gender of respondents and their opinion - electronic goods are high in cost.

H₀₅₂: There is no significant difference between the age of respondents and their opinion - electronic goods are high in cost.

H₀₅₃: There is no significant difference between the education of respondents and their opinion - electronic goods are high in cost.

H₀₅₄: There is no significant difference between the income of respondents and their opinion - electronic goods are high in cost.

H₀₅₅: There is no significant difference between the occupation of respondents and their opinion - electronic goods are high in cost.

H₀₅₆: There is no significant difference between the gender of respondents and their opinion - not enough income to buy electronic goods.

H₀₅₇: There is no significant difference between the age of respondents and their opinion - not enough income to buy electronic goods.

H₀₅₈: There is no significant difference between the education of respondents and their opinion - not enough income to buy electronic goods.

H₀₅₉: There is no significant difference between the income of respondents and their opinion - not enough income to buy electronic goods.

H₀₆₀: There is no significant difference between the occupation of respondents and their opinion - not enough income to buy electronic goods.

H₀₆₁: There is no significant difference between the gender of respondents and their opinion - buying electronic goods make us lazy in work.
H₀62: There is no significant difference between the age of respondents and their opinion - buying electronic goods make us lazy in work.

H₀63: There is no significant difference between the education of respondents and their opinion - buying electronic goods make us lazy in work.

H₀64: There is no significant difference between the income of respondents and their opinion - buying electronic goods make us lazy in work.

H₀65: There is no significant difference between the occupation of respondents and their opinion - buying electronic goods make us lazy in work.

H₀66: There is no significant difference between the gender of respondents and their opinion - to buy electronic goods is wastage of money.

H₀67: There is no significant difference between the age of respondents and their opinion - to buy electronic goods is wastage of money.

H₀68: There is no significant difference between the education of respondents and their opinion - to buy electronic goods is wastage of money.

H₀69: There is no significant difference between the income of respondents and their opinion - to buy electronic goods is wastage of money.

H₀70: There is no significant difference between the occupation of respondents and their opinion - to buy electronic goods is wastage of money.

H₀71: There is no significant difference between the gender of respondents and their opinion - buying electronic goods creates lack of interest in household work.

H₀72: There is no significant difference between the age of respondents and their opinion - buying electronic goods creates lack of interest in household work.

H₀73: There is no significant difference between the education of respondents and their opinion - buying electronic goods creates lack of interest in household work.

H₀74: There is no significant difference between the income of respondents and their opinion - buying electronic goods creates lack of interest in household work.

H₀75: There is no significant difference between the occupation of respondents and their opinion - buying electronic goods creates lack of interest in household work.
H\textsubscript{076}: There is no significant difference between the gender of respondents and their opinion - use of electronic goods diverts children's attention from study to entertainment.

H\textsubscript{077}: There is no significant difference between the age of respondents and their opinion - use of electronic goods diverts children's attention from study to entertainment.

H\textsubscript{078}: There is no significant difference between the education of respondents and their opinion - use of electronic goods diverts children's attention from study to entertainment.

H\textsubscript{079}: There is no significant difference between the income of respondents and their opinion - use of electronic goods diverts children's attention from study to entertainment.

H\textsubscript{080}: There is no significant difference between the occupation of respondents and their opinion - use of electronic goods diverts children's attention from study to entertainment.

H\textsubscript{081}: There is no significant difference between the gender of respondents and their opinion - electronic goods are very expensive to repair if they become out of order.

H\textsubscript{082}: There is no significant difference between the age of respondents and their opinion - electronic goods are very expensive to repair if they become out of order.

H\textsubscript{083}: There is no significant difference between the education of respondents and their opinion - electronic goods are very expensive to repair if they become out of order.

H\textsubscript{084}: There is no significant difference between the income of respondents and their opinion - electronic goods are very expensive to repair if they become out of order.

H\textsubscript{085}: There is no significant difference between the occupation of respondents and their opinion - electronic goods are very expensive to repair if they become out of order.

4.5 Review of literature


13. Alwitt and Prabhakar have examined “Functional and belief dimensions of attitudes to television advertising –Implications for copy testing”, a survey of 1200 households reveals that demographics, attitudes, people’s belief and perceived functions of TV ads are all about equally significant. Only, some demographic groups like, higher income and older respondents have been found to dislike TV ads.

25. Venkateshwara M., Reddy, and Dasarapharmi B. (Aug. 1997), “Marketing of TV Sets-A study of external and internal influence on consumer behavior”, Indian Journal of Marketing, Vol.27 (8): p. 20-24. Researchers studied 300 households in Prakasm district of Andhra Pradesh by the random survey method. They found that in most of the cases head of household and his wife acted as decision maker. Influence of wealth, income, education, and saving as found negative. However, the influence of advertisement found higher (97%) in the study.


Lodish have scanned the US market through 389 households behavior, consumer panel and copy tests. Moreover, found that TV is the most effective and accepted media for advertisement.


Singh and others have evaluated 320 woman's perception of selected urban cities of Madhya Pradesh, Uttar Pradesh, Maharashtra, and New Delhi. The study found that the buying behavior is not concise, sources of information for women is friends, relatives, family members and the media, their decision was influenced by their husband (48%), children (30%), friends (12%), relatives (4%) and nine (6%) respectively.


54. Rich Harris, ___” Is there an ‘i’ in gdis? The problem of representation in geo-demographic and lifestyles systems”, http://www.google.com/consumer behavior
4.6 **Universal and Sampling Plan:**

### 4.6.1 Universes:

The universe of the present research study comprises an electronic product market and geographical area-North Gujarat. In order to complete, the research study within the specified time the researcher has been selected the following electronic product namely as below.

- Television
- Refrigerator
- Computer
- Air Conditioner
- DVD Player
- Washing machine

### 4.6.2 Sampling Plan:

From the electronic product of North Gujarat, users as samples have been selected by using “Stratified Random Sampling” method for knowing their opinion about SEGs. Therefore, total sample size is 600. The sample size in detail has mentioned in below chart.
In this way, 600 samples have divided equally among 4 district users.

4.7 **Period of Data Collection:**
In the present research study, secondary data have collected during the time 2009-2010 to 2012-2014 so far as possible.

4.8 **Source of Data Collection:**
In the present research study, both the sources of data collection have used namely.

(a) **Primary data:**
The primary data have collected from respondents by utilizing Survey questionnaire.

(b) **Secondary data:**
Secondary data about a profile of selected electronic goods has collected by open-ended questionnaire. Moreover, the secondary has also collected from various books, journal, annual reports, magazines, newspaper, literature, articles, dealers etc.
4.9. **Techniques of data collection:**

The data in the present study has been collected using survey questionnaires and interview techniques.

4.9.1 **Survey Questionnaires:**

An open-ended questionnaire has been prepared to get secondary data about a profile of selected electronic goods.

A survey questionnaire has also been prepared to get a respondent's opinion about consumer behavior aspects of selected electronic goods.

The researcher visited 4 districts of North Gujarat to fill up open-ended and multi-choice questionnaire.

4.9.2 **Interview:**

To supplement the secondary data and to fill up the gap, the researcher-conducted interview of concerned authorize of selected electronic goods.

4.10 **Analysis and interpretation of data:**

The information collected through a questionnaire, Part-I and II has been classified and tabulated. Different tables have been prepared with the help of a computer. The data in the table have analyzed and interpreted by using statistical methods, namely- percentile, and average.

Various hypotheses have tested by applying chi-square test with the help of SPSS. Hypotheses have tested at 0.05 levels of significance.

The chi-square test measures the hypothesis that the row and column variables in a cross tabulation are independent.

A low significant level (typically below 0.05) indicates that there may be some relationship between the two variables.

4.11 **Scope for future research:**

The present research study is on ‘‘A study of Consumer Behavior towards Selected Electronic Goods With reference to North Gujarat’’. In the present research study, the researcher has attempted to collect information through questionnaire from 600 respondents and 4, District of North Gujarat.

Consumer behavior is a very wide subject. Therefore, this research study opens the door for future research on electronic goods. Therefore, there is a scope for future research on electronic goods as mentioned below and the present research study can helpful in the future research.
1. A study of consumer behavior towards SEGs in other areas of Gujarat other than North Gujarat.
2. A study of consumer behavior about SEGs in Gujarat state.
3. A study of consumer behavior about electronic goods in selected rural and urban areas of Gujarat.
4. A study of consumer behavior about electronic goods in selected cities of any two states or more states of India.
5. A study of marketing management of SEGs with special reference to North Gujarat.
7. A study of promotion mix practices of electronic goods in Gujarat state.

Above suggested titles of research study would be very much help to those who want to start research work in this field.

4.12 Limitation of the study:

The present research study is subject to the following limitations.
1. The present study has geographical area limited to only North Gujarat.
2. The present study has a sample size restricted to only 600 samples.
3. The present study has selected only six electronic products.
4. The present study does not find and suggestion subject to response of respondents.
5. The present study has non-response from respondents and non-availability of requiring information restrict the research study to certain limitations.
6. The finding and suggestion of the present research study has not applied to the geographical area other than North Gujarat, if there is very a heterogeneous market.

4.13 Chapter planning:

The present research study is divided into following nine chapters.

Chapter-1: An Overview of Indian Economy

This chapter deals with meaning and definition of market, marketing, and consumer behavior, brief history of Indian economy, new economy policy, concept of market and selling, concept of service and service
marketing, changing pattern of Indian consumer behavior, factor affecting of consumer behavior etc..

Chapter-2: Indian Electronic Industry:
This chapter deals with concept of electronic industry, electronics of early 20th century, electronic after 20th century and growth of electronic industry in India, electronic industry – global picture and electronic industry operating in India, product line and product mix of electronic companies was operating in India.

Chapter-3: Review of Literature:
This chapter deals with various review of literature in past and present.

Chapter-4: Research Methodology:
This chapter deals with Rational of the Study, Objectives of the study, Hypothesis of the study, Review of literature, Universal and Sampling plan, Period of Data Collection, Source of Data collection, Techniques of Data collection, Analysis and interpretation of data, Scope for future research, Limitation of the study, and Chapter planning.

Chapter-5: Profile of North Gujarat
This chapter deals with brief history and outline of North Gujarat and general profile of respondents about there are, occupation, gender, income, and others.

Chapter-6: Overall Profile of Respondents
This chapter deals with general profile of respondents and cross relationship between age, income and possession of SEGs, education, occupation and possession of SEGs, education, income and possession of SEGs, family type and possession of SEGs, income, occupation and possession of SEGs, house pattern and possession of SEGs, and residential area and possession of SEGs.

Chapter-7: Respondents’ General Opinions about Selected Electronic Goods
This chapter deals with identified reasons for using and not using SEGs, Identification of Source of Information for purchasing Selected Electronic Goods, and Identification of Best time for purchasing of Selected Electronic Goods, Identification of important factors affecting to Purchase of Selected Electronic Goods and ranking to factors.
Chapter-8: Respondents’ opinion about various reasons for use and for not using selected electronic goods

This chapter deals with Cross tabulation of the demographic profile of respondents with their opinion about various reasons for using selected electronic goods and cross tabulation of the demographic profile of respondents with their opinion about various reasons for not using selected electronic goods, and summary of testing of hypothesis.

Chapter-9: Overall Finding and Suggestions:

In this chapter, finding and suggestion have put forward. With a thought has arrived at consumer behavior more effective with limited exaptation to electronic goods of North Gujarat.