CHAPTER 4

RESEARCH METHODOLOGY

4.1   INTRODUCTION

Research is an art of scientific investigation. It refers to search for knowledge. It is a scientific and systematic search for pertinent information on a specific topic. It is actually a voyage of discovery, a movement from the known to the unknown. Research is, thus an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment. Every letter of the term 'RESEARCH' has a special and dignified meaning as:[1]

R	**R**ational way of thinking
E	**E**xpert and exhaustive treatment
S	**S**earch for solution
E	**E**xactness
A	**A**nalytical analysis of adequate data
R	**R**elationship of Fact
C	**C**areful recording, Critical observation, Constructive attitude, Condensed generalizations
H	**H**onesty and Hard work

Research is well established fact now in the field of trade and commerce. For instance, surveys are carried out to explore market potential before introducing a new product or service. Research is an important source of better knowledge for modern scientist. It plays a vital role in evaluation of effect of decisions. The modern scientists believe that the ultimate aim of research must be the benefit of our economy. Thus, research transforms reality into a logical array of information, so that the reality may be comprehended and understood in better way.

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[1] Pathak, G.G. (August, 2012), "Research Methodology – Semester – 1 – MBA", Tech-Max Publication, Pune, p.p.1-2

4.2 DEFINITION OF RESEARCH

C. R. Kothari in his book on "Research Methodology" defines research as "Research is a scientific and systematic search for pertinent information on a specific topic."

D. Slesinger and M. Stephenson in the Encyclopedia of Social Science defined research as: Manipulation of things, concept or symbols for the purpose of generalizing and to extend, correct or verify knowledge, whether that knowledge aid in the construction of a theory or in the practice of an art."[2]

L.V. Redman and A.V.H. Mory in their book on, "The Romance of Research" defined research as "A Systematized effort to gain new knowledge."[3]

4.3 RATIONAL OF THE STUDY

Advertising has suddenly become a buzzword in the banking sector. Customer has suddenly moved to the centre-stage and has now a choice. How do bank then attract a customer to use their product and services? One has to reckon the fact that the old loyalty can no longer be taken for granted. Banks have to make efforts to retain the existing customers and also use strategies to attract new customers to their fold. The role of banks is not just to operate the functions and schemes that have been previously designed, but also to keep innovating new trends and strategies to cater to the varying needs of the customers and prove it to be more accessible by the common people for a variety of operations.

Women in large proportion are viewer of visual advertisement and reader of print form of advertisement. Due to increase in literacy ratio among women in all over India, there has been a noticeable contribution in development of nation with the participation in economic activities. The household females must also practice to avail products and services of banks, which can be more influenced by various forms of advertisement. Advertisement becomes tool to aware especially non working women

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[2] Kothari, C.R. (2006), Research Methodology, New Age Institutional Publishers, New Delhi, p.1.
[3] Pathak, G.G. (August, 2012), "Research Methodology – Semester – 1 – MBA", Tech-Max Publication, Pune, p.p.2

about banking products and services. At times, advertisement conveys the objectives and intention of an organisation as a social responsibility which ultimately gets commercialised to increase its sales and market share.

Thus, the purpose of this research is to understand the impact of advertisement on women of Saurashtra Region and to know the form of advertising which is attention seeking and awareness bringing for various banking products and services among women of Saurashtra Region. This study will throw a light on most appealing media of advertising for awareness among print media, visual media or online media of advertising in few major cities of Saurashtra region which mainly includes Rajkot, Junagadh, Bhavnagar, Amreli, Porbandar, Surendranagar, Somnath, Morbi and Jamnagar.

4.4   RESEARCH METHODOLOGY

4.4.1   Research Title:

The title of the present research, conducted by the researcher is:

"AN IMPACT OF ADVERTISEMENT IN CREATING AWARENESS OF BANKING PRODUCT AND SERVICE AMONG WOMEN OF SAURASHTRA REGION"

4.4.2   Type of the Study:

The present study is analytical and exploratory in nature. It is based on the Questionnaire and Scheduling. The descriptive analysis of the same has been based on researcher's skill under the guidance of respected guide. The main purpose of exploratory research design is that of formulating a problem for more precise investigation or of developing the working hypothesis from an operational point of view. The major emphasis in such studies is laid down on the discovery of ideas and insights. The research design for such studies must be flexible enough to provide opportunity for considering different aspects of a research problem under study. It is flexible so that many different facts of a problem may be considered.

4.4.3 Objectives of the Study:

The present research has been undertaken keeping in view the following objectives:

i. To find out the most impactful form of advertisement among various form like print media, visual media and internet in women to spread awareness related to banking products and services.

ii. To understand the type of awareness bringing advertisement for its fruitful impact.

iii. To measure the impact of banking advertisement in the major cities of women of Saurashtra Region.

iv. To understand the effect of advertisement.

v. To suggest some driving factors through which marketing strategies can be enhanced.

To provide detailed information about Impact of Advertisement on Women Consumers.

4.4.4 Hypothesis of the Study:

To justify the research objectives, the researcher has formulated a few hypotheses. The hypotheses formulated for the present research is as mentioned below.

Table – 4.4.4.1

A Table Showing Hypothesis to measure the Impact of Advertisement on the Women of Saurashtra Region

Sr. No.	Hypothesis
1.	H_O: There is no significant difference in impact of advertisement on various age groups among Women of Saurashtra Region. H_1: There is significant difference in impact of advertisement on various age groups among women of Saurashtra Region.
2.	H_O: There is no significant difference in impact of advertisement on various Occupations among Women of Saurashtra Region.

	H₁: There is significant difference in impact of advertisement on various Occupations among Women of Saurashtra Region.
3.	**H_O:** There is no significant difference in impact of advertisement on various Education group among Women of Saurashtra Region. **H₁:** There is significant difference in impact of advertisement on various Education group among Women of Saurashtra Region.
4.	**H_O:** There is no significance difference in impact of advertisement on different Marital Status of Women in Saurashtra Region. **H₁:** There is significance difference in impact of advertisement on different Marital Status of Women in Saurashtra Region.
5.	**H_O:** There is no significant difference in impact of advertisement on various Annual Income among Women of Saurashtra Region. **H₁:** There is significant difference in impact of advertisement on various Annual Income among Women of Saurashtra Region.
6.	**H_O:** There is no significant difference in impact of advertisement on Women of various cities of Saurashtra Region. **H₁:** There is significant difference in impact of advertisement on Women of various cities of Saurashtra Region.
7.	**H_O:** There is no significant difference in impact of advertisement on various family statuses among Women of Saurashtra Region. **H₁:** There is significant difference in impact of advertisement on various family statuses among Women of Saurashtra Region.

4.4.5 Universe of the Study:

The overall area of the study has focused on women residing in major cities of Saurashtra Region which includes 9 different major cities of Saurashtra Region viz. Rajkot, Jamnagar, Bhavnagar, Amreli, Morbi, Somnath, Porbandar, Junagadh and Surendranagar.

4.4.6   Sample of the Study and its Size:

To justify the research title, the researcher has selected sample of 500 women residing in Saurashtra Region. For the selection of sample unit the researcher has adopted Random Sampling and Convenient Sampling Technique which is carried out in various stages. In the study women of major cities of Saurashtra Region are the primary unit of the analysis. The cities covered are Rajkot, Jamnagar, Bhavnagar, Amreli, Morbi, Somnath, Porbandar, Junagadh and Surendranagar.

The researcher has distributed almost 720 questionnaires among the women of major cities of Saurashtra region, out of which many were either not filled properly as per mentioned instruction or were incomplete. Hence finally 500 responses were duly selected by researcher to have fruitful analysis.

4.4.7   Sources List:

It includes major cities of Saurashtra Region- Rajkot, Jamnagar, Bhavnagar, Amreli, Morbi, Somnath, Porbandar, Junagadh and Surendranagar.

4.4.8   Sampling Method:

To justify the research title and objectives, the researcher has used non probability sampling applying Convenient Sampling method. The researcher has also used snowball theory to collect the data.

- **Simple Random Sampling**

Random Sampling is selection of cases from the population in such a manner that every individual in the population has an equal chance of being chosen. In addition, the selection of any one individual is in no way affected by the selection of any other. The selection of units from the universe or population in a random sample is so arranged that the progress gives equiprobability of selection to every unit in that population. The population studied in the investigation may not always be homogenous.

- **Snowball Sampling**

In cases when information about units within the population is not available the snowball sampling method is adopted. This method is useful only when all the target group maintain contacts between them, and the group is willing to reveal the names of others.

4.4.9 Data Collection:

The data is collected from the respondents without any decided criteria for proportionate category selection by income, age, marital status, profession, family income or any personal factors.

The researcher has distributed almost 720 questionnaire among the women of major cities of Saurashtra Region as per Table- 4.4.9.1, out of which many were either not filled properly as per mentioned instruction or were incomplete. Hence finally 500 responses were duly selected by researcher to have fruitful analysis.

Table – 4.4.9.1

A Table Showing Sample Size from Various Cities of Saurashtra Region

City	Requested	Received	Gap
Rajkot	80	70	10
Jamnagar	80	43	37
Bhavnagar	80	66	14
Amreli	80	79	01
Surendranagar	80	59	21
Junagadh	80	31	49
Porbandar	80	61	19
Morbi	80	42	38
Somnath	80	49	31
Total	**720**	**500**	**220**

Table – 4.4.9.2

A Table Showing Demographic Variables of the Respondents

Sr. No.	Particulars	Number of Respondents	Percentage (%)
1.	**Age**		
	18 yrs to 25 yrs	177	35.4
	26 yrs to 40 yrs	206	41.2
	41 yrs to 60 yrs	107	21.4
	61 yrs and above	10	2.0
	Total	**500**	**100**
2.	**Marital Status**		
	Unmarried	198	39.60
	Married	278	55.60
	Widow	17	3.40
	Divorced	7	1.40
	Total	**500**	**100**
3.	**Family Status**		
	Individual	43	8.60
	Nuclear Family	230	46.0
	Joint Family	227	45.4
	Total	**500**	**100**
4.	**Education**		
	Under graduate	118	23.60

	Graduate	238	47.60
	Post Graduate	144	28.80
	Others	0	0
	Total	**500**	**100**
5.	**Occupation**		
	Unemployed	205	41.00
	Government Job	28	5.60
	Private Job	157	31.40
	Self-employed	52	10.40
	Others	58	11.60
	Total	**500**	**100**
6.	**Annual Income**		
	Not Applicable	262	52.40
	Less than Rs. 1,00,000	126	25.20
	Rs. 1,00,001 to Rs. 2,00,000	65	13.00
	Rs. 2,00,001 to Rs. 5,00,000	42	8.40
	Rs. 5,00,001 and above	05	1.00
	Total	**500**	**100**

4.4.10   Type of Data: Primary Data

- **Primary Data**

Primary data are those which are collected for the first time and are thus original in character. These are in shape of raw materials to which statistical methods are applied for the purpose of analysis and interpretation. The common methods of collecting primary data are Observation Method, Interview Method, through questionnaires or through schedules.

- **Secondary Data**

Secondary data are those which have been already collected and analyzed by someone else, and as such the problems associated with the original collection of data does not arise. Researcher can get secondary data from Official publication of Central, State or local government. International bodies like U.N.O., IMF, IBRD and its subsidiary bodies. Authentic abd registered web sites, books, magazines and newspapers. Technical and Trade Journals, Reports of Associations and reports submitted by economists, research scholars, university bureaus and various other educational associations.[4]

4.4.11 Data Collection Tool:

A well designed Structured Questionnaire and Scheduling using Likert's Scale based on five point scaling. Responses to the questions were used to test the hypothesis.

- Questionnaire is widely used for data collection in social research, particularly in surveys where there is a large area of operations. It is a fair tool for gathering data from large, diverse, varied and scattered social groups. It is used in obtaining objective and qualitative nature. Preparation of questionnaire is a complicated task. The preparation presupposes to be fully prepared, properly worded, arranged, codified and duly protested and approved by the experts in the area.

4.4.12 Data Collection Method: Survey Method and Scheduling.

- **Survey Method**

It deals with a representative samples of population. The sample must be selected in such a way that every member of the population has an equal chance of

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[4] [4] Chaudhary. C.M. (2009), "Research Methodology", RBSA Publishers, Jaipur, p.p.-67-81.

being selected. So that generalization of the results can be possible. There is always direct interaction between respondents and the instruments. Survey requires skilled workers to gather data which is of primary nature. Careful selection and training of interviews is of paramount importance.

- **Scheduling**

Schedule refers to a form of questionnaire which is generally filled in by the researcher or the enumerators who are specially appointed for the purpose. These enumerators along with schedules go to respondents, put to them the questions from the Performa in the order the questions are listed and record relies in the space meant for the same in the Performa. On the contrary in questionnaire the researcher may or may not meet the respondents and enumerators may help them in recording their answers. Enumerators explain the aims and object of the investigation and also remove the difficulties which any respondent may feel in understanding the implications of a particular question or the definition or concept of difficult terms.

4.5   DATA ANALYSIS TOOLS, TECHNIQUE AND PRESENTATION

For the study, data collected were duly edited, classified and analyzed using One Way Analysis of Variance, F-test as statistical techniques. The data is presented through simple classification and graphical representation with the help of percentage, average and the non-pragmatic Test of Hypothesis. The data will be analyzed and hypothesis was tested at 5 percent level of significance as the hypothesis which is either accepted or rejected. There are many other techniques which may be used by researcher for analyzing the impact of banking advertisement on women of Saurashtra Region. To collect and analyze the data, 5 point scaling has been used. To analyze the data different pie charts and graphs has been made for the pictorial presentation of data.

4.5.1 Statistical Techniques

Use of statistical techniques has become a normal phenomenon in any type of analysis; statistical tools which are used for financial analysis are as the following.

- **Arithematic Mean**

One of the most important objectives of statistical analysis is to get one single value that describes the characteristics of the entire mass of unwidely data. Such a value is called the central value or an average or the expected value of the variable. The most popular and widely used measure of representing the entire data by one value is what most laymen call an 'average' and what the statisticians call the arithemetic mean. Its value is obtained by adding together all the items and dividing this total by number of items.

- **Standard Deviation (σ)**

In statistics, standard deviation is a simple measure of the variability or dispersion of a data set. A low standard deviation indicates that the data points tend to be very close to the same value (the mean), while high standard deviation indicates that the data are "spread out" over a large range of values. In addition to expressing the variability of a population, standard deviation is commonly used to measure confidence in statistical conclusions. The term "standard deviation" was first used (1) in writing by Karl Pearson (2) in 1894 following use by in lectures. This was a replacement for earlier alternative names for the same idea; for example Gauss used "mean error" (3) a useful property of standard deviation is that, unlike variances, it is expressed in the same units as the data. The formula of standard deviation is as under.

$$\sigma = \sqrt{\frac{\sum(X - \overline{X})^2)}{n - 1}}$$

- **Co-Efficient of Variance**

In probability theory and statistics, the coefficient of variance (CV) is a normalized measure of dispersion of a probability distribution. It is defined as the ratio of the standard deviation to the mean. This is only defined for non zero mean, and is most useful for variables that are always positive. It is also known as unitized risk. The coefficient of variation should be computed for data measured on a ratio scale. It does not have any meaning for data on an interval scale. The formula of co-efficient of variance is as under.

$$C.V = \frac{\sigma}{\bar{X}} \, X100$$

- **F-Test**

F-Test is based on F-Distribution and is used to compare the variance of the two independent samples. This test is also used in the context of analysis of variance (ANOVA) for judging the significance of multiple correlations coefficients. Test statistic, F, is calculated and compared with its Probable value (to be seen in the F-ratio tables for different degree of freedom for greater and smaller variances at specified level of significance) for accepting or rejecting the null hypothesis. When we use the F-Test, we presume that[5]

1. The population is normal
2. Sample have been drawn randomly
3. Observations are independent
4. There is no measurement error

- **Analysis of Variance (ANOVA)**

The basic principle of ANOVA is to test for differences among the population by examining the amount of variation within the samples and relative amount of

[55] Kothari, C.R. (2006), Research Methodology, New Age International Publishers, New Delhi, p.311

variation between the samples. In other words, with the help of techniques of analysis of variance we can test the hypothesis that the means of all the components constituting a population are equal to the means of the population or that the sample has come from the population. While using, it is assumed that each of the sample is drawn from normal population and each of this population has same variance. It is also assumed that factors other than the one or more being tested are effectively controlled by the researcher under the study.

In case of one-way ANOVA we take only one factor and then observe that this single factor is paramount in studying the variation within the samples and the variation between the samples. On the basis of various steps involved in one way or single factor ANOVA techniques the analysis of variance table can be obtained as follows:

Analysis of Variance Table for One-Way ANOVA

Sources of Variation	Sum of Squares (SS)	Degrees of Freedom (d.f.)	Mean SS	F-ratio
Between Samples	SSB	K-1	$MSB = \dfrac{SSB}{K-1}$	$F_C = \dfrac{MSB}{MSW}$
Within Samples	ESS or SSW	N-K	$MSW = \dfrac{SSW}{N-K}$	-
Total	TSS	N-1	-	-

In the table k= number of samples and n= number of items in the sample.[6]

SSW- Sum of squares within samples,   ESS- Error sum of samples

E.S.S or S.S.W = T.S.S. – E.S.S.[7]

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[6] Chaudhary. C.M. (2009), "Research Methodology", RBSA Publishers, Jaipur, p.p.-297-300.

- **Pie chart**

A pie chart is a circular statistical graphic, which is divided into slices to illustrate numerical proportion. In a pie chart, the arc length of each slice and consequently its central angle and area, is proportional to the quantity it represents. While it is named for its resemblance to a pie which has been sliced, there are variations on the way it can be presented.

- **Bar chart**

A bar chart or bar graph is a chart that presents grouped data with rectangular bars with lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally. A vertical bar chart is sometimes called a column bar chart.

A bar graph is a chart that uses either horizontal or vertical bars to show comparisons among categories. One axis of the chart shows the specific categories being compared, and the other axis represents a discrete value. Some bar graphs present bars clustered in groups of more than one, and others show the bars divided into subparts to show cumulative effect.[8]

4.6 PERIOD OF STUDY

The present research is focused on Impact of advertisement on women in a particular region based on various modes, for banking products and services for a period of 2.5 years from 2012-13 to 2015-16. There is no special reason to consider this period as the period of study. But to derive perfect conclusion of the study and to cover all aspects this period is quite fit. So, to make the present study fruitful, the researcher has selected the above mentioned period.

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[7]H.J.Patel (2013), "Business Statistics-2" C.Jamnadas & Co. P.158.
[8] https://en.wikipedia.org/wiki/Bar_chart

4.7   CHAPTER PLAN

The present research study is divided into 6 different chapters, as mentioned below:

Chapter-1   Introduction of Banking Sector

In chapter number one the brief history, organisation and structure of Indian banking before and after nationalisation, reforms of banking, types of bank, as well as the role of RBI and global trends in banking sector has been discussed. This chapter also covers the fastest growing services and brief overview of Indian Banking System with its innovative products and services especially for female which includes types of loans for women of various categories like educated, uneducated, female entrepreneur, for her education, housing and so on.

Chapter-2   Introduction of Advertisement

This chapter devoted to the concept of marketing strategy for banking industry, marketing elements, marketing mix for banking services, marketing communication mix, various marketing tools and techniques used by banks for the marketing of financial services. It also includes what can be marketed by banks. Altogether with that the history of advertising and various modes of Advertisements which includes Print Media along with audio and visual one. In addition to that the role of advertisement in India is also discussed which is mainly for awakening interest in products as well as for bringing awareness among targeted customers.

Chapter-3   Review of Literature

To get an exhaustive idea the researcher has reviewed various books, dissertations, thesis, journals, and newspapers issues and so on. On the basis of this review, the researcher has presented 65 reviews of literature. At the end of this chapter, the researcher has presented research gap which reveals the gap between previous research and this research. This chapter covers, studies related to banks,

studies related to marketing strategy, impact of advertisement, advertising to women, relationship marketing, and review of banking sector.

Chapter-4   Research Methodology

This chapter covers, defining the problem of the study, coming up with the main and sub objectives of the study, to justify the research title and objectives; the researcher has formulated the hypothesis. To conduct the research sampling is an important element so the researcher has include the sample design using different demographic variables and collected the primary data using questionnaire and scheduling from 500 respondents. To test the hypothesis, the researcher has used, F-test Analysis of Variance and multiple comparisons to derive concrete conclusion. To present in easy and understandable manner, the researcher has used charts, graphs and tables in adequate numbers.

Chapter-5   Analysis and Interpretation

The chapter progresses with various definitions of Research and Research Methodology. The problem statement of the research is "An impact of advertisement in creating awareness of banking products and services amongst women of Saurashtra Region". To justify the research title, the researcher has selected sample of 500 women residing in major cities of Saurashtra Region which includes Rajkot, Jamnagar, Bhavnagar, Amreli, Surendranagar, Morvi, Junagadh, Somnath and Porbandar. For the selection of sample unit the researcher has adopted Random Sampling and Convenient Sampling Technique which is carried out in various stages. The researcher has also used snowball theory to collect the data.

Chapter-6   Summary, Findings and Suggestions

This chapter presents summary, conclusion and recommendations of the study. How these recommendations are useful for managerial decisions, limitations of study and identify the directions for future research.

4.8   SIGNIFICANCE OF THE STUDY

i. It will be guiding research to the students of commerce and management faculty.

ii. It aims to provide the information related to the impact of advertisement in bringing awareness regarding banking products and services among women of Saurashtra region.

iii. It can be useful to researcher scholars as ready reckoned to understand various aspects of, impact of advertisement and appealing form of advertisement on Women of Saurashtra Region.

iv. This research will be a guide for the vivid organization for better marketing strategy and advertisement forms for bringing awareness among women regarding banking products.

4.9   LIMITATIONS OF THE STUDY

The sample consists of 500 women from major cities of Saurashtra Region. The sample is selected conveniently so as the responses from Women have been influenced by their mood, time, situation, impression. As the primary data and survey method of research has its own limitations and based on the respondent the study is limited to nine cities of Saurashtra Region only and it cannot be applicable to India or at an International level.

While undertaking this research, the researcher has found following limitations, which may affect the result of the present study:

i. The study will be pertaining only to the women in Saurashtra Region and the awareness of selected products of selected banks.

ii. The study will be based on analysis of impact of advertisement among women of Saurashtra Region so any generalization for universal application cannot be expected.

iii.   View of experts may be different for the purpose of the study, so it may create some difference in opinion and understanding the topic of the study.

iv.   This study is in the nature of analytical and exploratory research. It is not being proposed to enter in the normative aspect.

v.   The validity of the study will depend upon the reliability of the primary data.

vi.   This study is based on Primary data which has its own limitations.

vii.   The diversity of the sampling may not be an accurate sampling of women.