CHAPTER – 4
RESEARCH METHODOLOGY

4.1 Introduction
The purpose of this chapter is to explain the procedures followed in conducting the research. In this chapter, the discussion of methodology begins with formulation of hypotheses. The research design includes sampling design, data collection procedure, survey instrument, measurement of key variable, the pilot study and ends with procedure for data analysis & testing the hypothesis.

4.2 Objectives of the Study
Researcher was interested in understanding the customer demographic profile, attitude toward modern retailing, needs, expectations and customer satisfaction. Therefore following objectives for the study were formulated:-

1. To study the demographic profile of the customers visiting and shopping at organized retail outlets.
2. To study customer satisfaction in retailing under study area.
3. To know the customer attitude towards modern retailing.
4. To understand customer buying pattern of retailing.
5. To identify factors responsible for turning to organized retailing.
4.3 Formulation of Hypotheses

Hypothesis has been derived from the review of literature. Since the study is any exploratory in prime, the hypotheses have been formulated in null form and alternative form.

1. Demographic profile of customer effects on customer satisfaction.
2. Various Shopping factors lead to customer satisfaction.
3. Customer prefers modern retailing due to facilities available in the modern retail outlet.
4. Buying pattern of customer depends on income.

**Hypothesis 1: Demographic profile of customer affects on of customer satisfaction.**

Hypothesis (H₀): customer satisfaction does not depend on Demographic profile of customer.

Hypothesis (H₁): customer satisfaction depends on Demographic profile of customer.

**Hypothesis 2:- Various Shopping factors lead to customer satisfaction.**

Hypothesis (H₀):- there is no significant association between the shopping factors and customer satisfied.

Hypothesis (H₁):- there is significant association between the shopping factors and customersatisfied.
Hypothesis 3:- Frequency of customers to modern retail out depend on facility available in modern retail outlet

Hypothesis (H₀) There is no significant association between the facility available in modern retail outlet and Frequency of visiting to modern retail outlet.

Hypothesis (H₁) There is significant association between the facility available in modern retail outlet and Frequency of visiting to modern retail outlet.

Hypothesis 4 Buying pattern of customer depends on income.

Hypothesis (H₀): There is no significant association between buying pattern and income.

Hypothesis (H₁): There is significant association between buying pattern and income.

4.4 Research Design of the study

Research design is the master plan of any research study focusing on (Hair et al., 2003) the structure, procedures and data analysis of the research (Leddy & Ormrod, 2025). There are three designs to choose from dependent on the type of the present study. They are exploratory, descriptive and causal research designs.

Given the limited amount of information on store retailing and customer behaviour in India, it was decided to design two phase research process to explore and examine the factors influencing consumer behaviour towards retailing. In the first phase, an exploratory study was carried out to identify factor that were consider to customer satisfaction of retailing. The main purpose of such studies is that of formulation of problem for more precise investigation or of developing the working hypotheses from an operational point of view. An observation of retailing indicated that there were two major
store formats such as neighbourhood kirana stores (Traditional Format) and supermarket format (Modern Format) are accounted for major sales volume and have huge market share. The exploratory study helped us to identify factors which they thought were important to their store formats and affected consumer retail format choice and customer behaviour.

Furthermore, extensive discussions with eminent academicians and researchers in retail marketing also indicated the influence of demographic, geographic, psychographic factor in retailing. The second phase was a field survey which was non – experimental survey methodology to gather the data necessary to test hypotheses. A survey research design was considered appropriate for several reasons: (1) The use of a survey is advantageous for collecting perceptual data from a large population; (2) Survey data are easily quantifiable; and (3) Several measures were developed by previous researchers for the survey design.

4.4.1 Sample Design

Sampling is one of the components of research design. Sampling design begins with specifying the target population, determining the sample frame, electing a sampling technique, determining the sample size and executing the sampling process.

4.4.1.1 Population/Universe

This study is confined to the residents of the Aurangabad and Nanded cities of Marathwada. Marathwada region includes two major cities, for the purpose of the research. Most of the modern retail establishments are located in this area of Aurangabad.
The population of the study constitutes the shoppers/ People of Aurangabad and Nanded who visit a retailer for purchasing their day today requirements like grocery, apparel, electronic equipment, cosmetics, stationary, foot wears, accessories, jewelry, and many other items of their use. These two cities truly represent the entire Marathwada. Aurangabad being the Major cities and also the city where retailing is growing with the maximum speed as compared to other parts of Marathwada is the true representative of the retailing sector of entire Marathwada.

4.4.1.2 Sampling Frame
The sampling frame or source list, a subset of the defined target population, from which sample is realistically selected for research (Nargundhar, 2007). The sampling frame for the present research study would be comprised of adult retail customers chosen from two cities Nanded and Aurangabad. Aurangabad city has a population 11,75,116 whereas Nanded city 5,50,439.

4.4.1.3 Sample Units
The respondents shall consist of customers who shop in a retail outlet for their routine or special utilities, and people in general as every individual is a customer in one way or the other.

4.4.1.4 Sample characteristics
As far as the demographic profile of the respondents is concerned, the sample comprises of a variety of respondents belonging to different age group, gender, family-status, economic and professional backgrounds.
4.4.1.5 Sampling Technique

The area of research includes 2 major cities of Marathwada Region i.e. Nanded and Aurangabad.

The sampling technique used in the research is Convenient sampling. Motive for using convenient sampling is listed below:

1. Nanded and Aurangabad cities fall under semi-urban category and tier 3 cities, so the presence of organized retails and malls is very limited.
2. The demographic working population structure of income of more than 20,000/- was not easily available.
3. The respondent should have been associated with both organized and unorganized retailers.
4. The relative cost and time required to carry out a convenience sampling are small which enabled to achieve the sample size in a relatively fast and inexpensive way.

4.4.1.6 Sample Size

Following Convenient sampling 400 respondents were selected as final sample which has become size of sample. To determine sample size two references are used:

1. First researcher use book titled ‘Research methods for business students’ 5th edition of Mark Saunders and Philip Lewis from chapter seven, chapter name selection of sample size in Table 7.1 Sample sizes for different sizes of population at a 95 confidence level on page no. 219.
4.5 Data Collecting Procedure

The data used for the present study is primary in nature. The primary data was collected through the field survey during the period July 2012 –December 2012. Surveys are an efficient way of gathering information from a large sample of consumers by asking questions and recording responses. Several types of methods of data collection were considered. Considering the complexity of the survey, time and funding budget, a mall intercept survey was finally adopted.

The mall intercept survey is an inexpensive method of data collection where the interviewer intercepts shoppers in a shopping mall or in the vicinity of the store. The advantages of mall intercepts are that researcher can ask consumers more complex questions, show product samples or different advertisements and ask opinions. Another advantage of this technique is capturing the decency effect. There was a risk that an interview away from the store might bring only “visualized perception” and not the real experience. Yet, this method may be subject to interviewer bias, in which responses are influenced by the interviewers’ characteristics (age, gender, etc.) or by a desire to please the interviewer.

In this study, the interviewers intercepted the shoppers after they had finished shopping and left the store.
4.6 Tools for Data Collection

Primary data is original data, researcher can use for the specific purpose to solve research problem. Secondary data is collected for purpose understanding problem depth and direction to the solution. In this study researcher used primary as well secondary data. Primary at collected in the form of the questionnaire by survey method whereas the secondary data collected from the past literature and published articles by various authors in refereed journals with respect to the study.

4.6.1 Primary data

Primary data is often called firsthand data that is collected by the researcher for the first time and is originated by researcher keeping in view the objectives, hence, it is in the original form and explained that data collected from primary sources are more closely connected to the field and are not collected through a process of filtering that is used in secondary sources. Accordingly the execution plan, this study was prepared and it was decided to collect the primary data within time span of six months. In this study primary data was collected through structured questionnaire to elicit responses from the customers about their preferences and buying pattern with regard to various aspects. 400 respondents were selected to final analysis.

4.6.2 Secondary data

The researcher has gone through pool of secondary data available and reviewed number of thesis, journals & reports published at international and national level till date which was related to customer behavior, customers’ expectations, services and service delivery, customer satisfaction, customer buying pattern, customer attitude towards unorganized retail. Impact of Organized Retailing on the Unorganized Retailing, Customer loyalty and
customer retention from various service areas. The secondary data collected from Books, articles, newspapers, magazines, publications of central Govt. Particularly the internet media played very important role where the secondary data is easily available; in this study also researcher had taken help of the internet for past literature. Due care is taken by the researcher that the data collected is reliable and authentic. After analyzing findings and the results of the past literature, researcher came across the recent problems related to customer satisfaction for which he puts forward this study.

4.7 Measurement of Key Variable

All the measurement items were adopted from the existing scales to measure the constructs proposed in the model. Meanwhile, some items were created based on the literature related to retailing study, customer behavior, and buying pattern in retailing. Five point scales were employed because previous research has suggested that a five point scale is readily comprehensible to respondents and enable them to express their views. Based on are view of the literature on each construct and the existing scales, this study prepared a list of thirty eight questions measuring different constructs. For adopting and refining the measures in the study context, these measures were pretested. Academicians checked the scale indicators for face validity and provided comments that were used to revise the scales. Basically the measures are concerned with shoppers’ characteristics, determinant store attributes, information sources and situational factors influencing customer behaviour in retailing. The various measures used to test the reliability and validity of the instrumented is described in the next part.
4.8 Measurement Scales for Questionnaire

The tool used to record the responses of the respondent is in the form of questionnaire.

The questionnaire consists of closed ended questions; the closed ended questionnaire includes:

1. **Dichotomous questions**, it includes questions of Gender, Marital Status, Source of Income, Family type, Shopping preferences and opinion about increasing total number of organized retail outlet.

2. **Multiple choice questions**, it includes questions of Age, Education, Occupation, Income Group, Number of dependents, Decision regarding choice of retail outlet, Frequency of visiting retail outlet, Distance of retail outlet, Mode of transportation, Overall satisfaction from retail outlet.

3. **‘5’ point rating**, questions includes Factors affecting the perception, Attitude and consumer behavior, Factors resisting and encouraging customers from shopping at organized retail.
4.9 Reliability

As a consequence of modifying the instrument, the questionnaire measures were tested through reliability analysis in order to determine if the sample subjects were understood all items in the questionnaire and to test the for internal consistence. Because most of the measurement items were adapted from other studies which used them in different contexts, it was important to test the phraseology of the research instrument. The relationships among the individual items will be investigated by considering the average item-total correlation and average inter-item (Cronbach’s Alpha) correlation. Item-total correlation was considered to be one of the methods available to test construct validity. It measures internal consistency by establishing how much item agrees with the sum of other items.

The average inter-item correlation indicates the stability and consistency of the measuring instrument. The Cronbach’s Alpha was used to measure the reliability coefficient. For reliability coefficient values, it was suggested that 0.70 is the minimum requirement for basic research. If the correlations are low (less than 0.70), the contribution of each item will be reviewed and consideration will be given to dropping from the scale of those items that provide the least empirical and conceptual support. All reliability results were in the range 0.70 to 0.92 which exceeds 0.70 limit of acceptability. SPPS is used for this test.
4.10 Validity
Validity is defined as the degree of agreement between the claimed measurement and the real world. At the start the researcher has taken several suggestion and help from various experts with the related experience in the same field. The help taken from different authorizes like retail managers, academicians and statisticians.

4.11 Pre-testing/Pilot Test
To improve the instrument, a preliminary study was conducted on 50 respondents of Nanded and Aurangabad each. Participants of this pilot study were not included in the main study. The responses in the questionnaire was recorded and evaluated in terms of word ambiguity, clarity and understandability of questions, difficulty levels of questions, ease of answering questions, overall structure of questions, restrictions on answering particular questions and the time necessary to complete the questionnaire. The questionnaire was improved on the basis of their suggestions and feedbacks regarding the appropriate words, adjectives, sentences, format and structure of the questionnaire.

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