CHAPTER- 3

RESEARCH METHODOLOGY

Every research is built upon the grand work i.e. research methodology without it the research has no existence. The RM is the brain behind the research which is rataionally and scientifically proven tools and techniques which helps the researcher to carry out his/ her research work systematically, orderly and rationally. Thus forming the basis of the research and its output generation. This chapter gives the glimpses of the important aspects of research methodology which has been used in the present research work with the following sections:

3.1 Defining the Problem Statement

3.2 Research Objectives

3.3 Hypotheses

3.4 Need and Significance of the study

3.5 Sources of the information

3.6 Development of the tools and techniques of gathering information

3.7 Research Design and Sampling (Brief)

3.1 Statement of the Problem

The study in consideration scrutinizes different aspects of the basic problem which is *"A Study of Perception on FDI in Multi Brand Retail in India".*

3.2 Research Objective

The main objective of this study is to analyze the perception of consumers towards the opening up of foreign Investment in MultiBrand by the use survey method i.e structured questionnaire, the primary idea gives rise these research issues:

- To identify the critical factors framing individuals' perception towards FDI in multi-brand retailing.
- To analyze the perception of consumers on FDI in multi-brand retail with respect to their demographics- (Age, Gender, Income level, Occupation, Qualification).
- To identify the prospects and challenges on FDI in multi-brand retailing in contemporary environment.

3.3 Hypotheses

The two main hypotheses are-

- H01: There is no significant difference in the perception of consumers based on various factors on FDI in Multi-Brand Retail with respect to their demographic (Gender).
- H0: There is no significant difference in the perception of consumers based on various factors on FDI in Multi-Brand Retail with respect to their demographics(Age, Income and Qualification)

In the course of this study, the following sub hypotheses have also been tested:-

Demographic Variables- Age, Gender, Income, and Qualification with respect to various factors which are as followings:

1. **Factor 1-** Improved Product Quality at Competitive Prices
2. **Factor 2-** Increased Consumer Convenience
3. **Factor 3-** Increased Capital Investment and Political Convergence
4. **Factor 4-** Economic and Moral Risk
5. **Factor 5-** Advantage to Indian Economy
6. **Factor 6-** Reduced Profit Margins of Domestic Companies/ Consumers
7. **Factor 7-** Direct Benefit to Consumers (DBC)

Null Hypothesis formulated as follows:

- H0: There is no significant difference among different age groups based on factor 1,2,3,4,5,6,7.
- H0: There is no significant difference between Males and Females based on factor 1,2,3,4,5,6,7.
- H0: There is no significant difference among the different Qualifications based on factor 1,2,3,4,5,6,7
- H0: There is no significant difference between different income groups based on factor 1,2,3,4,5,6,7

3.4 Need and Significance of the Study

Allowing foreign Investment in MBRT in India is a totally latest occurrence in developing country like India. It is one of the burning issues in the Indian retail industry and across the world is well. India is a huge market and its population is increasing day by day. By opening the Indian economy is bound to create uproar in India there is a large penetration of local kirana stores, this provides livelihood for many peoples who are now threatened by these foreign players. The large part of its population consists of aspirational youth who wants to be in sync with the global world, besides that every consumer wants wider range of products/services should be available for their disposal but on the other hand we have to look at the broader picture where different stakeholders are involved in the whole process . This whole system of pursuing the foreign investment in the organized retail via Multi brand retail would definitely touch lives of various stakeholders who are consumers, retailers, intermediaries, farmers and manufacturers. Through this study the researcher wants to study the perception of consumers. Likewise lots other marketing entities' goes for structural changes. Thus there is a need to look into all these aspects in depth.

3.5 Sources of the Information

To fulfill the aforesaid aims and to test the hypothesis stated above, information has been gathered from secondary sources as well as primary. The particulars of the sources are as followings:-

3.5.1 (A) Primary Data

To gather the required information, the primary data was collected by formulating the research instrument for survey. The structured questionnaire is developed and modified with two sections before and after conducting the field survey. A final translation of prepared questionnaire with two sections was developed to find out viz.

(1) 1st part of questionnaire consisted of Demographic profile based on (Age, Income, Gender, Occupation, Qualification and Marital Status)

(2) 2nd part of questionnaire was captured with the help of 32 statements based on Consumers perception regarding impact of FDI in multi-brand retail (MBRT) in India.

3.5 Source of the Information

3.5.2 (B) Secondary Data Sources

The pertinent study which has formulated the base for the research wok is leveraged on the literature which has been available from the secondary sources; efforts have been made to tap the information from most of such available sources. Pertinent Sources are:

Research Journals/Publishers

- Emrald Insights
- Blackwell Publishing
- Oxford University Press
- Taylor & Francis
- Springer
- Cambridge University Press
- Sage
- Economic and Political weekly

Research databases

- Inflibnet
- Shodhganga
- JSTOR
- Wiley
- IEEE

Reports/ Periodicals/ Dailies

- ICRIER 2008
- European Retail Digest
- CII -McKinsey report
- Business Today
- AT. Kearney Global Retail Development Index 2016
- IBEF: India Brand Equity Foundation Report 2017
- Knight Frank, 2017
- KPMG 2016. Indian retail.
- McKinsey & Company 2008.
- Neilsons Report 2014. Indian Retail.
- PricewaterhouseCoopers2011.
- Business World.

A number of publications were searched for gathering secondary data. Data from number of research papers, annual reports, books, journals, published reports, of Retail Industries have been thoroughly reviewed to build the foundation of conceptual work required for the research work.

3.6 Development of Tools and Techniques of Gathering Information

a) Tools- Questionnaires: Final Questionnaire was prepared after the initial Pre-testing and after making necessary corrections with the help of Supervisor and then circulated and filled up by the respondents.

Questionnaire Design

The questionnaire was divided into two parts to meet the specific requirements of the present study.

a) Questionnaire Design

- ✓ First part for getting the Demographics variables from the consumers contains close ended questions along with multiple choice answers.
- ✓ Second part of survey questionnaire was administered to get consumers perception on 32 statements with close ended questions.

b) Techniques

Pilot Survey was conducted with rough survey questionnaire in order to get the views of the respondent's about the perceptions based on FDI in multi brand in NCR region.

The various measurement and scaling techniques used in the research are-

Likert Scale- here the respondents have been asked fill the statements ranging from several degrees of agreement or disagreement. For instance when asked to express opinion to what extent particular factor influences the job creation.

A five point scale questionnaire is used for the respondents are required for respond on each item ranging from 1 to 5 point scale.

Number of Score	**Strongly Agree**	**Agree**	**Indifferent**	**Disagree**	**Strongly Disagree**
	1	2	3	4	5

On the whole, research present work is based on both secondary data and primary, whereas the primary data collection attempted to get from the survey questionnaire. Secondary data was acquired from quarterly and annual reports on FDI in retail, various books, magazines, literature on the related field and relevant units.

3.7 Research Design and Sampling (BRIEF)

Nature of the Study

The research is an empirical effort to comprehend the consumer’s perception of Foreign Direct Investment in multi-brand in Delhi/NCR. The present research is an attempt to identify new insights and understandings around the area of study. Survey questionnaire is developed for conducting a detailed study. The method adopted for the data collection is Quantitative in nature. Research is empirical in nature.

Scope of the study

The organized retail organizations chosen for the purpose of the study are large multi-brand retailers with multiple stores existing in Delhi NCR, mostly existing inside mallspaces. The size of these retail stores are over 1,50,000 sq. ft. The geographical area selected for the study is Delhi and NCR. A questionnaire on Perception on FDI In multi-Brand Retail for the response from customers visiting these large multi-brand retail chain stores were selected.

Research Instrument Development

A questionnaire is a “pre-formulated research instrument that consists of a series of questions to which respondents record their answers, usually within rather closely defined alternatives” invented by Sir Francis Galton. “Questionnaires are an efficient data collection mechanism when the researcher knows exactly what is required and how to measure the variables of interest". To accomplish the objectives a research instrument i.e. questionnaire is formulated based on review of literature

- ❖ Understanding acquired during the process of literature review around the area of study. A thorough reading around global retail industry in general and from an Indian perspective in particular has been done.
- ❖ Discussions with retail experts. Academicians involved in teaching retail management and marketing in Institute of eminence of India were contacted for consultation to get their expertise while developing the questionnaires

Measurement format

An important part of questionnaire development was to define the scale to be used for measurement of responses. In this study, the Likert scale for measuring items was chosen in case of most questions. In others, nominal scales have been used as per the requirement of the questions. Likert scales were developed in 1932 as the five- point bipolar response scales (Likert, 1932). While using a Likert scale, respondents are asked to indicate a degree of agreement or disagreement, approval or disapproval, or a belief to be true or false, with a series of statements. There should be at least five response categories on the scale. The characteristics of the Likert scale format that have been used in this study are unipolar and bipolar Likert scale questionnaires, use of an odd number of response options, use of a total number of five response options, accompanying labels for each response option, use of blank boxes as choice indicators and, use of only positive item formulations. The complete research design is depicted in below that flows.

Table No. 3.1: Research Design

Nature of the Study	Exploratory in nature		
Data Sources	Primary and Secondary sources		
Data Collection Technique	Questionnaire		
Measurement format	5-point Bipolar Likert scale (BIPOLAR) used 1 for strongly agree, 2 for agree, 3 Indifferent,4 for diagree, 5 for strongly disagree		
Questionnaire	**Questionnaire Title**	**Total number of questions**	**Approximate time needed to fill the complete questionnaire**
	Questionnaire I: Consumers Perceptino on FDI In Multi-Brand Retail In India	32 pairs of close ended statements	12 minutes

Pretesting

Collection of data should always be preceded by pretesting of formulated questionnaires on their content and physical appearance of items pretesting usually involves distributing the questionnaires to a small sample of respondents, and then holding out discussions with them to understand if the questions correctly captured the intended agenda.

The questionnaire was first reviewed by 15 experts from RETAIL field of multi- brand retail firms in Delhi and NCR. These experts were first made scrupulously familiarized with the objectives of this study. Questions were judged on the basis of their relevance and exactness, comprehension of the intended meaning, time taken and clarity. Based on the feedback and suggestions from experts, corrections and changes were suitably made in order to match the industry requirements by keeping in rationale aims of the study. Questions that diverged from the objectives of the study, those were repetitive, Ambiguous and those with overlap in variables were removed. Otherwise, alterations were made in content, sequencing and different options of the questions. Pre- testing proved fruitful in ways more than one and helped in reaching to a common agreement that the new questionnaires were appropriate and that respondents would effectively be able to complete them in all respects.

The questionnaire begins with stating the objectives of the survey. It informs respondents that their frank, unbiased, honest opinions are very important and assures them that their names, name of their organization and individual respondent's scores will be kept confidential if they wish so. The Questionnaire consisted of a set of 32 pairs of statements based on various aspects about the role of FDI in Multi-brand retail. These statements try to capture the perception of respondent's opinions and attitudes towards the FDI in Multi-brand retail in India. Around each of these statements, respondents are expected to mark on the basis of first, how important these practices are for them, and second, indicate their satisfaction levels around each statement. The distribution of questions under each questionnaire along with approximate time required to fill the questionnaires is shown in the following table.

Table No. 3.2: Distribution of questions and approximate time taken to fill them

Questionnaire Title	Total number of questions	Approx. time required to fill the complete questionnaire
A Study of Perception on Foreign Direct Investment In multi-brand retail In India	32 (Close –ended Questions)	15 minutes

Sampling Framework

A sampling framework includes techniques that are used to determine a representative sample for the study. This has been discussed as under.

Selection of Sampling Technique and Sample size:

The sampling techniques adopted for the purpose of study is *Purposive* for selection of retail outlet and *Convenience Sampling* for sample selection. Purposive sampling- Multi-Brand retail outlets were chosen based on the fact that one or more of their stores present in Delhi and/or NCR. Convenience sampling has been practiced to select the Respondents/customers visiting the retail outlets, based on the willingness and convenience of access of respondents. As per Maxwell (1997) purposive sampling defined it, "A type of sampling in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices". Whereas to De Vaus (2002) defines, purposive sampling as "A form of non- probability sampling where cases are judged as typical of some category of cases of interest to the researcher". A purposive sample is designed to pick a smaller number of carefully selected cases that will lead to greater depth of information. According to Patton (2002), a small size is adequate in this sampling technique given the richness of the data provided. As an explanation for this study, the researcher applied purposive sampling in the sense that respondents were carefully chosen making sure there is equitable selection of diverse group of respondents on the basis of their different demographics. This was done so as to receive more generalized responses. Convenience sampling, which is "one where the researcher uses any subjects that are available to participate in the research study", has been adopted as well. Below Table encapsulates the sampling method adopted for the study.

Table No. 3.3: Depicting the Sampling Method

Subjects	Type of Sampling	Sampling Unit	Sample Size	Sample Area
Consumers (Males, Females. Couples, Senior Citizens, Adults)	Convenience and Purposive	Large Multi-Brand Retail Outlets	Total Circulated 625(588), Analysed= 502	Delhi/NCR

This research includes the study of large, multi- brand organized retail firms in India. Organized retail being a new concept to India, the number of firms that fall under the category of our consideration is few. Of all the organized retailers present in India,

Multi-brand retailers are even less. There is scanty information available mainly in the form of non- academic resources such as websites, newspapers, industry reports etc. Despite all these obstacles, the researcher chose to study this alien territory assuming with confidence that the findings of this research would provide constructive insights for various stakeholders, and lay grounds for future research.

A total of 14 firms were chosen for the study. The retail firms chosen have one or more of their stores present in Delhi and/or NCR. This study has national relevance because its findings may be applied to stores of these 14 firms in other parts of the country, as well. From amongst these 14 firms, based on the willingness of respondents and convenience of access, 625 respondents were chosen as respondents from the these retail firms. As we know, the universe comprising of Multi-brand retail is limited in the area for the research purpose. Approximately 20 huge multi-brand retail firms were present in the area during data collection. Hence, 14 out of 20 is a good sample size as the researcher tried to incorporate the maximum available multi-brand that could be chosen in the current scenario. Technically also, the aptness of this sample size for application of various statistical analysis techniques has been justified in subsequent chapters on data analysis.

Data Collection

In this section the researcher describe the process of data collection adopted for this study.The focus on the objectives were kept in mind while going for collection of data, adequate data collection methods were selected for implementation.

The process of data collection began by compiling a list of all the multi-brand organized retailers in India. The Retailers Association of India (RAI) was contacted for this. Google search engine and LinkedIn were used to get the location of these firms. Some retailers were contacted through telephone and email based on personal links. The researcher visited the different outlets of the retail organizations in Delhi and NCR in order to find out the right contacts to pursue further. Once the right contacts were tapped seeking participation in this research. The objectives of the study were explained and assurance was provided on maintaining the confidentiality of responses. It was observed and realized that in many cases, respondents were reluctant in giving approval for participating in the research work. The cause for this is they assumed the researcher to be a representative of some competing brand who had come to gather information around the practices being followed in this particular firm. The researcher had to follow up multiple times to win the confidence of these respondents. Out of the available multi-brand that exists, a total of 14 multi-brand retail firms were selected for the study. These retailers had outlets in Delhi and/or NCR, but most of them had their headquarters/corporate offices in Mumbai. Fortunately, all these 14 retail firms agreed for providing opportunity to conduct the survey from the consumers who are visiting their stores. The Convenience Sampling (Non probability Sampling Technique). The retail firms chosen have one or more of their stores present in Delhi and/or NCR. Respondents were chosen, based on the willingness and convenience of access. The questionnaire has been circulated among a wider number of people taking care of demographics that is age groups (18-23, 24-40, and above 40), gender, occupation (business, service and students), family background (nuclear or joint), educational background (graduate, post graduate and doctoral), marital status and income levels (less than 20000, 20000-50000 and above 50000). 588 complete responses were captured by the researcher from diverse group of respondents who were asked to participate in the survey. A total of 502 questionnaires, that were complete in all respects, were considered for further analysis. These form the basis of conducting data analysis pertaining to this study. Data collection spanned over a period of eight months in all.

Tools and techniques used for Data Analysis

Data Analysis defined as the process of studying, cleaning & extracting data with intent of discovering useful information. This requires to address the research questions. Before being subjected to "statistical analysis, the raw data contained in the questionnaires was required to be converted into a form suitable for analysis". This is called "Data Preparation". The questionnaires were checked for completeness; those with any discrepancies were rejected. The data was then coded by assigning a code for possible responses to each question. For easy reference, "a codebook containing the coding instructions and the necessary information about the variables in the data set were prepared in excel spreadsheet. The prepared data was then imported into SPSS (Statistical Package for the Social Sciences), version 20". The data was further checked by performing a thorough review of all data entries and applying random checks to specific questions in order to check their accuracy. Likert's five point scale from 1-Strongly Disagree, 2- Disagree, 3- Indifferent , 4th- Agree and 5-Strongly Agree. At the time of Analysis the coding of the scale is taken care of similar to the one mentioned in the questionnaire as by assigning value 1 to 5 from Strongly Agree to Strongly disagree respectively, this was done to break the monotonous /casual behavior of the respondents. The SPSS package 20 was used for analysis. The following techniques are used to analyze the responses

Table No. 3.4: Tools and techniques adopted for analysis of data

Research Instrument	Analysis tools
Questionnaire **Consumers Perception Survey**	Factor Analysis Independent Sample t-test Analysis of Variance (ANOVA) Descriptive statistics

Validity and Reliability

Validity of a test refers to "how correctly a test measures what it is supposed to measure". On a test with a high validity score, items will be closely linked to the test's intended focus. Face Validity, as the name suggests, helps the researcher to judge on the basis of surface appearance of the instrument. Content Validity refers to the degree that the measure covers areas within the concept under study. Reliability of a measurement instrument is the degree to which it produces stable and consistent results after repeated measurements. For example, if we were to administer a test with high reliability to an examinee on two occasions, we will very likely reach the same conclusions about the examinees performance both times. On the other hand, a test with a low reliability most probably will result in very different scores for the examinee across two test administrations. Reliability is considered an important element of measuring test quality. Internal consistency reliability is a measure of reliability used to assess the extent to which test items that probe the same construct produce similar results. Questionnaires framed on the basis of advice from experts in the area, such as retail industry, Retail Management Academicians in academia and from an exhaustive review of the relevant literature. This justifies how content validity of the questionnaires was established. Face validity of the questionnaires was established on the basis of judgment of the researcher with guidance from few others.

The validity and reliability of the two questionnaires for HR personnel and the Employee satisfaction survey are tested on validity and reliability in the following manner:

Validity	Face Validity and Content Validity
Reliability	Cronbac's Alpha coefficient of internal consistency reliability

Cronbach's Alpha, the coefficient of internal consistency, was first named „alpha" by Lee Cronbach in 1951. "It is used as an estimate of reliability of a psychometric test for a sample of examinees. The value of alpha generally increases as the inter-correlations among test items increases”. Its theoretical value varies from 0 to 1, and higher values are desirable. A value of 0.65 or above is considered good as this indicates that all items measure the same construct.

SPSS software was used which calculated α value for different variables under the three questionnaires. Putting it in another way, this interpretation of reliability is the correlation of test with itself. If this correlation is squared and subtracted from 1.00, the index of measurement error is obtained. As there is an increase in the estimate of reliability, there is a decrease in the fraction of a test score that is attributed to error.

Factor Analysis

“Factor Analysis is a multivariate statistical procedure which is used to examine a whole set of interdependent relationships among variables” “(Gorsuch, 1990; Hair, Anderson, Tatham, & Black, 1995; Hogarty, Hines, Kromrey, Ferron, & Mumford, 2005)”. It is a data reduction technique which reduces a large number of scale items into a smaller set of composite variables. In this study we have adopted exploratory factor analysis (EFA). EFA, as the name suggests, is exploratory in nature.

We have performed factor analysis using SPSS version 20 The output gives us the correlation values of original variables with the factors, known as factor loadings. These values are useful in interpreting and naming the factors. In SPSS, “Kaiser-Meyer-Olkin test (KMO test) is offered to measure the sampling adequacy. The sample is adequate if the value of KMO is greater than 0.5”. Both these criteria are successfully met in context with our study; hence, factor analysis can safely be used as the method of analysis. “Bartlett’s test of Sphericity is used to test the null hypothesis that the variables are inter-correlated” in the sample. The appropriateness of the test static is questionable if we do not get a large value of the test static, thereby rejecting the null hypothesis.

The method of factor analysis adopted for our study is Principal Component Analysis. We adopted this method because we primarily aim at “determining the minimum number of factors that will account for maximum variance in our data”. After conducting factor analysis on SPSS and obtaining output, one is expected to construe which factors to retain out of all the factors obtained. Once the factors have been extracted, it might be difficult to interpret and name them on the basis of output obtained. A solution for this problem is factor rotation. In this study, Varimax rotation has been used. The factors that result from varimax rotation are uncorrelated. Finally, variables that have large loadings on the same factor are identified. Based on prior theoretical knowledge and variable loadings on factors, the factors obtained are appropriately named. The results of factor analysis pertaining to this study have been discussed in subsequent chapters.

We have applied **t-test** to check whether the demographic factor Gender affects the people’s perception towards the various factors obtained through Factor analysis. T-test tests enable us to test whether mean of two populations‟ proportions can be considered equal. T-test as a test of independence is used when we want to determine whether the two variables under consideration are dependent or independent of each other. In t-test we have also checked the value of **Levene statistic** which helps us to know the homogeneity of variances of different groups if it comes its value comes out to be more than 0.05 than it can be said that variances of different groups are homogenous in nature and that allows us to conduct t-test as well as ANOVA test.

Using **ANOVA** we have also checked whether demographic factors affects the people’s perceptions on FDI in multi-brand which age group, qualification and income group people prefers different factors for foreign investment in retail that we have extracted from factor analysis. We have used one way ANOVA. When we have to check whether there is difference in groups of more than 2 of variable. So here demographic factor such Age group, Qualification and Income group were divided in more than 2 groups. It is being heavily used in survey research.