CHAPTER -3

RESEARCH METHODOLOGY

3.1   MEANING OF THE RESEARCH

Research is an effort to make careful investigation for new facts in any branch of knowledge. It is an academic activity that involves defining and redefining problems, formulating hypothesis, collecting organizing and evaluating data, making deductions and thus reaching to some conclusions. It also tries to test the conclusions with the real world i.e. checking or verifying the results arrived at. The Encyclopedia of social sciences defines research "as the manipulation of things, concepts or symbols for the purpose of generating to correct or verify knowledge, whether the knowledge aids in construction of theory or in the practice of an art." Research, thus is an original contribution to the stock of knowledge or is an honest effort in the pursuit of truth.

3.2   THE RESEARCH PROBLEM

In research process, the first and foremost step happens to be that of selecting and properly defining a research problem. A research problem, in general refers to the problem that strikes to the mind of the researcher and he experiences that such issues must be solved. Such problems may have theoretical or practical solution.

Defining a research problem properly and clearly is a crucial part of a research study and must in no case be accomplished hurriedly. It needs to follow the following steps:

(i)   Statement of the problem

(ii)   Understanding the nature of the problem.

(iii)   Surveying the existing literature

(iv)   Developing the ideas through discussion.

(v)   Drawing correct conclusions.

In the present case the problem under examination is present research **"Study of Business Environment in Organized Retail Sectors (With Reference to NCR Region)"** is aimed at to know about the customers purchasing behavior, their perceptions, their bargaining skills etc. in organized retail sector.

In order to understand the various dimensions of the retail industry (organized as well as unorganized sector) the problem has been further split into different factors[1].

The present research work is descriptive and analogical that includes surveys and fact finding enquiries regarding existing literature and events.

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[1]Slesinger, Dand M. Steph Ensar : Encyclopedia of Social Sciences, Vol IX, Macmillan, 1930

The major purpose of descriptive research is description of the state of affairs as it existed during the period for which the study is being made. In social science and business research we quite often use the term export facts research for descriptive research studies. The main characteristic of this method is that the researcher has no control on the variables, he can only report what has happened during the period for which the study is being made.

3.3 TYPES OF RESEARCH:

There are three types of researches done

(a)   Library Research,

(b)   Field Research

(c)   Laboratory Research.

The present one is Library Research as well as field research which have two methods:

(i)   Analysis of Historical Records,

(ii)   Analysis of Documents,

(iii)   Pilot survey method.

In these methods various techniques are being used e.g. recording of notes, content analysis statistical compilation and manipulation references and

abstract guides, and thereafter drawing conclusions and verifying them with realities, interviews, telephonic interaction, feedback from different sources.

3.4   SOURCES AND METHODOLOGY

In the present study the data have been extracted from the RBI handbook of statistics. The data on whole sale price index, whole sale price index of manufacturing product and whole sale price index of fuel product is taken from the same sources. The total period has been into six phased i.e. Firstly, the export date have been converted from constant price to current price by using the following formula-Value of the Export/WPI *100. Thereafter, The Compound annual growth rate have been calculated.

Estimation of Compound annual Growth Rate-   A widely accepted exponential model, $y = a \, b^t \, e^u$, has been fitted to the time series data for estimating growth rates. The logarithmic form of this function is given by;

$$\ln(y) = \ln(a) + t \ln(b) + u$$

where

y = dependent variable whose growth rate is to be estimated,

t = independent variable (Time),

u = disturbance or error term.

a and b = parameters to be estimated from sample observations.

The regression coefficient b is estimated by ordinary least squares (OLS) technique.

The Compound Average Growth Rate (CAGR) in % term is estimated as:

CAGR = {antilog (b) − 1}*100.

Where retail has become a part of organized sector and join the industry as a part of FDI, this model has been introduced to determine the growth of an economy are considered as the major pull factors of FDI inflows to a country. The analysis of above theoretical rationale and existing literature also provides a base in choosing the right combination of explanatory variables that explains the variations in the flows of FDI in the country. In order to have the best combination of explanatory variables for the determinants of FDI inflows into India, different alternatives combination of variables were identified and then estimated. The alternative combinations of variables included in the study are in tune with the famous specifications gives by United Nations Conference on Trade and Development, the study applies the simple and multiple regression method to find out the explanatory variables of the FDI inflows in the country. The regression analysis has been carried out in two steps. In the first step, all variables are taken into consideration in the estimable model. In the second stage, the insignificant variables are dropped to avoid the problem of multi-co

linearity and thus the variables are selected. However, after thorough analysis of the different combination of the explanatory variables, the present study includes the following macroeconomic indicators: total trade (TRADEGDP). Research and development expenditure (R&DGDP), financial position (FIN. Position), exchange rate (EXR), foreign exchange reserves (RESERVESGDP), and foreign direct investment (FDI), foreign direct investment growth rate (FDIG) and level of economic growth (GDPG). These macroeconomic indicators are considered as the pull factors of FDI inflows in the country. In other words, it is said that FDI inflows in India at aggregate level can be considered as the function of these said macroeconomic indicators. Thus, these macroeconomic indicators can be put in the following specifications:

MODEL-1

$$FDIt = a + b_1 (TRADEGDP)t + b_2 (RESGDP)t + b_3 (R \& DGDP)t \\ + b_4 (FIN.Position)t + b_5 (EXR)t + e' \qquad (4.1)$$

MODEL-2

$$GDPGt = a + b(FDIG)t + e, \qquad (4.2)$$

where,

FDI	=	Foreign Direct Investment
GDP	=	Gross Domestic Product
TRADEGDP	=	Total Trade as percentage of GDP
RESGDP	=	Foreign Exchange Reserves as percentage of GDP

R&DGDP	=	Research & development expenditure as percentage of GDP
FIN.Position	=	Ratio of external debts to exports
EXR	=	Exchange rate
GDPG	=	level of Economic Growth
FDIG	=	Foreign Direct Investment Growth
t	=	Time frame

Economic growth has a profound effect on the domestic market as countries with expanding domestic markets should attract higher levels of FDI inflows. The generous flow of FDI is playing a significant and contributory role in the economic growth of the country.

A large young working population with median age of 24 years, nuclear families in urban areas, along with increasing working women population and emerging opportunities in the services sector are going to be the key factors in the growth of the organized Retail sector in India. The growth pattern in organized retailing and in the consumption made by the Indian population will follow a rising graph helping the newer businessmen to enter the India Retail Industry.

- The sectoral caps are lower in China than in India in most of the sectors barring agriculture and forestry and insurance. A noteworthy aspect is that China permits 100 per cent FDI in agriculture while completely prohibits FDI in media. In India, on the other hand, foreign ownership is allowed up to 100 per cent in sectors like

Table 3.1: Investing Across Borders – Sector wise Caps–2013

Country	Mining, oil and gas	Agriculture and forestry	Light manufacturing	Telecommunications	Electricity	Banking	Insurance	Transportation	Media	Construction, tourism and retail	Health care and waste management
Argentina	100	100	100	100	100	100	100	79.6	30	100	100
Brazil	100	100	100	100	100	100	100	68	30	100	50
Chile	100	100	100	100	100	100	100	100	100	100	100
China	75	100	75	49	85.4	62.5	50	49	0	83.3	85
India	**100**	**50**	**81.5**	**74**	**100**	**87**	**26**	**59.6**	**63**	**83.7**	**100**
Indonesia	97.5	72	68.8	57	95	99	80	49	5	85	82.5
Korea,	100	100	100	49	85.4	100	100	79.6	39.5	100	100
Malaysia	70	85	100	39.5	30	49	49	100	65	90	65
Mexico	50	49	100	74.5	0	100	49	54.4	24.5	100	100
Philippines	40	40	75	40	65.7	60	100	40	0	100	100
Russian	100	100	100	100	100	100	49	79.6	75	100	100
South	74	100	100	70	100	100	100	100	60	100	100
Thailand	49	49	87.3	49	49	49	49	49	27.5	66	49

'mining, oil and gas', electricity and 'healthcare and waste management'.

- India positioned well vis-a-vis comparable counterparts in the select countries in terms of the indicator 'starting a foreign business'. In 2009, starting a foreign business took around 46 days with 16 procedures in India as compared with 99 days with 18 procedures in China and 166 days with 17 procedures in Brazil.

3.5   RESEARCH OBJECTIVES

A.   PRIMARY OBJECTIVE

Study of Business Environment in Organized Retail Sectors (With Reference to NCR Region)

B.   SECONDARY OBJECTIVE

1.   To know about the Customer profiling and how they perceive retail store as a brand.

2.   To have overview of competition prevailing in the same sector through Competitive analysis of major retail outlets.

3.   To study the effectiveness of the Store Branding in formulating marketing strategies.

4.   To study the effectiveness of promotional offers made by Retail store.

5.   To study the loyalty programs and various tie ups of Retail stores with other brands.

3.6   DATA COLLECTION STRATEGY

➢   Tools for primary data collection

The primary data for the purpose of the study were information and responses from customers of supermarkets in NCR region. The required data was collected by addressing the appropriate class of respondent and requesting them to provide necessary information.

a.   Primary Source

The primary data was collected using a structured questionnaire and the questions were close ended which were coded and cross-tabulated, keeping in view the context and objectives of the study.

The consumers are respondents who provide information regarding their understanding, experiences, opinion and perception towards marketing practices adopted by supermarkets. The questionnaire incorporated different scaling techniques as demanded by the study.

A well-structured and comprehensive questionnaire has been prepared to collect data from these respondents. The questionnaire consisted of both open and closed ended questions.

A questionnaire consists of a set of questions presented to respondents for their answer. Because of its flexibility, the questionnaire is by far the most common instrument used to collect primary data. Questionnaires need to be carefully developed, tested, and debugged before they are administered on a large scale.

➢ **Sources of secondary data collection**

As with any research, the researcher was aware about the value of secondary data. Information has been sourced from various books, trade journals, government publications, newspapers etc. and research is descriptive in nature. Data presented in the form of tables and analysed in form of percent trends and chart. The secondary data provided the researcher with the information regarding the activities, scope and opinions of other researchers and experts in the initial stages. The data further guided the researcher in defining the variables of the study. The secondary data provide useful and necessary information supplementing the qualitative aspects of research finding.

The basic source of data used for the retail sector estimates is the Annual Survey of Industries (Central Statistical Organization, Government of India), which has been the principal data source in most of the earlier studies on retail sector in India. India's manufacturing units are classified into registered and unregistered sectors. All factories that employ more

than ten workers with the aid of power and more than twenty workers without the aid of power are classified under registered manufacturing (or, broadly, the factory sector). All other manufacturing activities are classified under unregistered manufacturing. The ASI considers only registered manufacturing sectors, which in terms of value added, represent about 58-67 percent of total manufacturing.

In the ASI, the manufacturing industries were classified into 23 sectors at two- digit industrial classification level. In present work, we have further grouped some closely related sectors, partly because of limits on the availability of relevant deflators from the wholesale price index and partly to reduce the errors related to the reclassification of industries.

For this purpose, secondary data was collected from all associated sources that include: Information gathered from the websites and research papers.

    a) Books on Marketing & Retailing.

    b) Research Journals.

    c) Magazines & Periodicals.

    d) Newspapers, Published materials, directories & websites.

Base Year

A base year is the year against which the performance of all the other years in the index is measured. When a base year is chosen, it need not necessarily be the best year for the economy but it should definitely be a

normal year. By normal we mean a year with stable manufacturing, macroeconomic performance and fiscal environment. The year chosen should not exhibit extraordinary deviations from the long term growth of the economy. There should be no occurrence or minimum incidence of extreme events, eventualities and political events. For making price corrections to the reported data on gross output and intermediate input, suitable deflators have been used.

3.7   ANALYSIS OF DATA THROUGH STATISTICAL TOOLS

After data collected through questionnaire method the large volume of raw data has been edited, coded and then classified into homogeneous groups so that to get some meaningful relationship. Then the mass data has been assembled in some kind of concise and logical order through tabulation.

Summarized data in form of tables has been used to analyze by using some of the graphical methods. Different statistical techniques also has been used in analysis of data and appropriate hypothesis testing tools has been used to test analyze the results. On the basis of these statistical testing methods conclusion of the research has been made.

Under the reform process retail sector is exposed to international competition which forced them to introduce new methods of production, impart quality inputs along with modern technology to improve its

productivity and efficiency. Growth of retail sector is recognized as a key feature of economic dynamism.

Statistical Tools

The data for the study was analyzed through R statistical package (Ver. 3.4.0) [R Core Team (2013). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria.URL http://www.R-project.org/]. Further, the R Commander package was used to do statistical calculations as well modeling [Fox, J., and Bouchet-Valat, M. (2017). Rcmdr: R Commander. R package version 2.3-2.]

Demographic data as well data not measured on 5-point scale was entered in as factors as they are categorical in nature, while the item measured on 5-point Likert scale were treated as continues variables (as it is an interval scale). A total of 500 valid responses were analyzed.

3.8   RESEARCH DESIGN AND TECHNOLOGY OF THE STUDY

The research design for the purpose of the study has been drafted and the steps have been taken in a systematic manner. The research design explains how the research process is carried out. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine the relevance to the research purpose with economy

in procedure.[2] In fact research design is the conceptual structure within which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from working the hypothesis and its operational implications to the final analysis of data.

Survey method has been used in the research design. The survey of concerning literature happens to be the most simple & fruitful method of formulating precisely the research problem or developing hypothesis. Hypothesis stated by earlier researchers or authors have been reviewed and their usefulness has been evaluated as a basis for further research.

The collected data/information have been tabulated, classified and analyzed by using proper statistical tools and techniques, such as co-relation, regression, t-test, ANOVA and other tests too. These data have also been interpreted to draw the proper inferences and results. If necessary then their results have been further analyzed and elaborated to find out the exact results. Finally, the researcher has drawn the definite conclusions. On the basis of these conclusions, the scholar has advised the certain policy towards the structural reforms in the context of retail industry in India. The inter relationship between the different measures or we can say variables have also been calculated for the inferences, results and then conclusions,

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[2] Claire Selltiz and Others; Research Methods in Social Science, 1962, p. 50.

the variables related to the development of industries like infrastructure facilities, technical know-how, availability of raw materials etc. were be analyzed. To show the results at a glance, the researcher has used various charts, diagrams and maps.

3.9 SAMPLE DESIGN

The sampling method chosen for the project was "Convenience Sampling". This type of sampling is also known as purposive or non-probability sampling. This sampling method involves purposive or deliberate selection of particular units of the universe for constituting a sample which represents the universe. When population elements are selected for inclusion in the sample based on the ease of access, it can be called convenience sampling. In other words, under non-probability sampling the researcher inquiry purposively choose the particular units of the universe for constituting a sample on the basis that the small mass that they so select out of a huge one will be typical or representative of the whole.

3.10 UNIVERSE

The phenomenon of supermarket became a major marketing event in the city of Delhi, Gurgaon & Noida. So, here the universe is Delhi, & NCR region. The sample has been chosen 500 respondents which has been

categorized among male and female respondents. The marketing environment has changed drastically with the emergence of organized retail. Though the phenomenon is of recent origin with a history of a decade and half, it has changed many dimensions of retailing activities in the cities. Hence it becomes essential to study the business practices adopted by supermarkets.

3.11 SAMPLE SIZE DETERMINATION

Sample size taken for collecting the data through questionnaire here is 500. Sample size has been used according to the convenience of the researcher as well as according to the instructions of the person under which the project was undertaken. Sample size also depends on the available time & financial factor for the research before the researcher.

Since the present problem is based upon secondary data as well as primary data, therefore the design has been developed in a way that inferences are automatically drawn from the analysis presented in the scheme of chapter-wise is as under:—

The first chapter deals with introduction that analysis and examines the conditions of Indian retail industry in organized as well as unorganized sector, trend and pattern of retail industry.

The second chapter deals with the review of literature in which a survey of the existing literature has been provided to enrich the thesis with the ideas and contributions of various renowned policies as well as policy makers.

Chapter three, also deals with research methodology, exploration with statistical techniques.

Fourth chapter provides a detailed account of organized retail industry.

The last chapter concludes with findings and suggestions.