# CHAPTER – II

## RESEARCH METHODOLOGY

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"...No method known to man can entirely eliminate uncertainty. But scientific method, more than any other procedure, can minimize those elements of uncertainty. By so doing, it reduces the danger of making a wrong choice..."\(^1\)

\(^1\) Marie Jahoda, Morton Deutsch and Stuart W. cook, Research methods in social relations (Hinsdale, I.L., Dryden press, 1951), part I, p.28.
The objectives of the study, sample selection, size of the sample, period of the study, technique of data collection and various data analysis techniques used in studying, "Corporate Disclosure Practices In India" have been discussed in detail in this chapter.

OBJECTIVES

This study has been undertaken with the main objective of making a comprehensive analysis of the disclosure practices of private sector companies in India for the years 1995-96 to 1999-00. The specific objectives of the study are:

1. To study the various conceptual issues relating to corporate reporting and the corporate reporting environment in India and Abroad.

2. To study the extent of disclosure in the annual reports of the selected companies during the period of study in the light of various amendments of the Companies Act 1956, Accounting standards issued by the Institute Of Chartered Accountants Of India (ICAI) and the guidelines prescribed by the Securities and Exchange Board Of India (SEBI) for listing agreement.

3. To examine the influence of company attributes such as size, profitability, age and nature of industry vis-à-vis, disclosure of information of the said company.

4. To analyse the concept of "Timeliness" in corporate disclosure in the light of scientific advancement in the area of Information Technology.
5. To study the consensus between the companies (preparers) and users of the annual reports regarding the various items of corporate disclosure.

6. To study the contemporary issues in corporate disclosure.

7. To study, understand and analyse the corporate disclosure practices in Foreign Countries.

8. To understand the limitations in the present practices of corporate disclosure.

**HYPOTHESES**

The following hypotheses are formulated and tested with the help of appropriate tools.

1. There is no association between the attributes of the company (asset size, capital size, age, ROI and turnover) and its disclosure score.

2. There is no difference in the disclosure of the information in the annual report and the expectations of users.

3. There is no difference among the users of the annual report regarding the information disclosed in the annual report.

4. There is no difference among the various categories of shareholders (age, educational qualification, years of holding, number of shareholding and zone) regarding the information disclosed in the annual report.

5. There is no association between the company attributes and their reported time lag.
6. There is no difference in the disclosure of information by the companies in India and abroad.

MAJOR RESEARCH AREAS IN THE STUDY

In order to achieve the above said research objectives of the study; research areas in the study are classified into three parts. They are:

I. Corporate disclosure practices in India.

II. Consensus between the Companies (preparers) and users of the annual reports regarding the various items of corporate disclosure.

III. Corporate disclosure practices Abroad.

With reference to the above-mentioned three areas of research chosen for study, different sample size, universe, period and statistical tools are used, as explained below.

I. CORPORATE DISCLOSURE PRACTICES IN INDIA

METHODOLOGY

To study and analyse the corporate disclosure practices in India, the following research methodology has been adopted.

ANNUAL REPORTS

Disclosure means reporting of quantitative and qualitative information of financial and non-financial nature, regarding a reporting entity to outsiders for the purpose of their decision-making. There are many media available to a company for
the purpose of reporting the information to the interested parties, but the published accounts i.e. the annual report is considered to be a significant medium of disclosure. For the purpose of this study the annual report is considered as a medium of disclosure.

UNIVERSE AND SAMPLE OF THE STUDY

For this study the annual reports of 125 public ltd companies were selected on the following basis:

a. The private sector companies, ranked according to their performance on the basis of the survey conducted by the research bureau of "Business Today"², constitute the universe of this study.

b. The selection of 125 companies among the top 500 companies ranked by Business Today is based on the availability of annual reports for a period of 5 years from 1995-96 to 1999-00. This method of judgmental sample selection may not be free from some limitations.

c. Proper care was taken while selecting these companies from different industries, size, age, group, etc.

First of all, the managements of all the selected companies were requested to deliver the annual reports of their respective companies for the years 1995-96 to 1999-00. Since the response was very low, so three reminders, with an interval of 20 days, were dispatched. As a result of the reminders a few more annual reports were received. However, most of the companies, which responded to the

request, sent the annual reports for the year 1998-99 or 1999-00 only. So in order to collect the data for the years 1995-96 to 1999-00 with respect to the different companies, the libraries of different Universities and SEBI (Mumbai) were unsuccessfully visited. Finally a visit to "Goa Institute Of Management" Raibander, Goa, proved successful. Here, in the Goa Institute Of Management they have more than 5000 annual reports of different companies for different period. The selected 125 companies are represented (in alphabetical order) in Appendix.I.

PERIOD

The period under the research area in this study is five (5) years, i.e. from 1995-96 to 1999-00.

The period under the study is selected from 1995-96 to 1999-00, mainly because of the several studies undertaken in the 70\textsuperscript{th}, 80\textsuperscript{th} and the first half of 90\textsuperscript{th} [Dasgupta\textsuperscript{3} (1977); ICAI\textsuperscript{4} (1985); Lal\textsuperscript{5} (1985); Banerjee\textsuperscript{6} (1988); Chakravorty\textsuperscript{7} (1994)] have examined the corporate reporting practices in India. Therefore, the present study is set from 1995-96 to 1999-00, (second half in 90\textsuperscript{th}) which is of the recent past.

SOURCES OF DATA

The required data for the study is collected from secondary sources.

\textsuperscript{3} op.cit. \\
\textsuperscript{4} op.cit. \\
\textsuperscript{5} Lal, Jawahar, "Financial Reporting by Diversified Companies", Vision Books, New Delhi, 1985. \\
\textsuperscript{7} Chakraborty, Dipti Kumar, "Development of Corporate Accounting in India", Venus Publishing House, New Delhi, 1994.
SECONDARY DATA

The secondary data is drawn from the annual reports of the companies, books, journals, magazines, newspaper reports and various other relevant publications.

For the purpose of data collection, an "Index of Disclosure" consisting of items of information, which should appear in an ideal annual report, was constructed. This includes statutory items and non-statutory items. The selection of the various items for the construction of the index of disclosure was based on the:

i. Literature survey on corporate disclosure;

ii. Related provisions of Companies Act 1956 and amendments thereafter.

iii. Accounting standards and guidance notes issued by ICAI.

iv. Criteria lay down by ICAI for selecting the best presented published accounts.

v. Scanning of the annual reports of the companies, which have received the award from ICAI for their best, presented published accounts.

vi. Guidelines prescribed by the Securities and Exchange Board Of India (SEBI) for listing agreement.

vii. Guidelines lay down by the Bureau of Public Enterprises (BPE) regarding the preparation of the annual report.

viii. Check list of the Corporate Committee Of Financial Analysts, USA.

x. Discussion with practitioners.

In all, 110 items applicable to the private sector were included in the index of disclosure. The selected 110 items are represented in Appendix - II. For the purpose of analysis, these items were classified into six main categories. Table 2.1 shows the number of items included in each main category:

Table 2.1

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Classification of items</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information on Accounting and Finance</td>
<td>56</td>
</tr>
<tr>
<td>2</td>
<td>Information on Personnel</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>Information on production</td>
<td>08</td>
</tr>
<tr>
<td>4</td>
<td>Information on Marketing</td>
<td>06</td>
</tr>
<tr>
<td>5</td>
<td>General Information</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>Reports</td>
<td>03</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

The above classification has been made keeping in mind the fact that the various users of the annual reports may be interested in knowing the performance of an enterprise in these areas, which taken together may reveal the total picture of the company.
SCORING OF ITEMS

Some researchers like Singhvi and Desai\(^8\) (1971), Buzby\(^9\) (1975), Firth\(^10\) (1979), McNally, HockEng and Hasseldine\(^11\) (1982), Christopher and Nobes\(^12\) (1984), Claire Marston\(^13\) (1986), etc have used the financial analysts' opinion to give scores to the different items on the basis of their relative importance to them. However, some other researchers like Copeland and Federick\(^14\) (1968), Jawahar Lal\(^15\) (1985), Banerjee (1988,\(^16\) 2001\(^17\)) and Chakravorty\(^18\) (1994) have assigned unweighted scores to different items in their studies. Chow and Wong-Boren\(^19\) (1987) and Subhash Chander\(^20\) (1992) in their study have used both weighted scores and the unweighted scores (equal score for all items). Using an unweighted score permits an analysis independent of the perceptions of a particular user group (Chow and Wong-Boren, 1987)\(^21\). So, in order to keep objectivity and fairness in the scoring system, **unweighted scoring method** has been used in this area of research study.

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\(^8\) op.cit, pp. 129-138.
\(^10\) op.cit, pp.273-280.
\(^11\) op.cit, p.11-20.
\(^14\) op.cit, pp. 106-113.
\(^15\) ibid.
\(^16\) ibid.
\(^18\) ibid.
\(^19\) op.cit, pp.533-541.
\(^20\) op.cit.
\(^21\) op.cit, p.536.
ANALYSIS OF DATA

The different statistical techniques used in this area of research study for the purpose of analysis of data and testing various hypotheses are discussed below:

a. CLUSTER ANALYSIS

Cluster analysis is used to identify the different segments of companies in the study. For the purpose of cluster analysis, capital, size of the assets, profit, turnover and age of the companies are considered as independent variables. Disclosure scores are considered as dependent variables.

Hierarchical cluster analysis is applied by taking into consideration the average disclosure score and company attributes for the period of five years, i.e. from 1995-96 to 1999-00.

Dendrogram using average linkage (between groups) is prepared and clusters are identified and studied. Cluster analysis is considered as a suitable method in this area of research, due to multiple-variable classification of data.

In the first step, a total of eleven clusters are formed. Of these, three clusters are too small in size. These three clusters are grouped to their nearest cluster on the basis of Minimum Distance (MD). Therefore, the total clusters for the study was fixed at eight.
b. **MULTIPLE LINEAR REGRESSION ANALYSIS**

Multiple linear regression analysis is applied to study the extent of relationship that exists among different variables in a cluster. This analysis is also used to study the extent of relationship that exists among corporate attributes on the disclosure score of the companies.

c. **REGRESSION ANALYSIS**

Regression analysis has been used to study the effect of corporate attributes on the disclosure score of the companies.

d. **OTHER STATISTICAL TOOLS**

Spearman's rank correlation is applied to find out the association between the "reported time lags" and the corporate attributes. T-test has been applied to find out the significance of corporate attributes on "reported time lags".

II. **CONSENSUS BETWEEN THE COMPANIES (PREPARERS) AND THE USERS OF THE ANNUAL REPORTS REGARDING THE VARIOUS ITEMS OF CORPORATE DISCLOSURE**

**METHODOLOGY**

To study and analyse the consensus between the companies (preparers) and the users of the annual reports regarding the various items of corporate disclosure, the following research methodology has been adopted.
UNIVERSE AND SAMPLE OF THE STUDY

For this area of study, the universe and sample size is selected as mentioned below:

i. The same 125 public limited companies, which were discussed in the previous research area of study, are considered as preparers.

ii. For measuring user’s preferences regarding information disclosure, a sample size of 200 respondents, consisting of individuals, and groups representing different users of annual reports were interviewed. These users include, shareholders, financial institutions, financial analysts and suppliers.

Table 2.2 shows the number of respondents selected for the study in each group of users.

Table 2.2

Number of respondent in each group of users

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Groups of users</th>
<th>No. Of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shareholders</td>
<td>104</td>
</tr>
<tr>
<td>2</td>
<td>Financial Institution</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Financial Analysts</td>
<td>39</td>
</tr>
<tr>
<td>4</td>
<td>Suppliers</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

The effort in collecting data through mailed questionnaire was unsuccessfully tried. Later on, the required data was collected by interview schedule.
For this purpose, the research scholar had visited, personally, different parts of India. The required data is a representation of all the zones of our country.

*Table No. 2.3* shows a zone-wise number of respondents studied.

**Table No. 2.3**

*Zone-wise number of respondents*

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Zone</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>South</td>
<td>64</td>
</tr>
<tr>
<td>2</td>
<td>North</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>East</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>West</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

Shareholders for the study were selected from different age groups, educational qualifications, number of shareholdings and duration of holdings as shown in the Table No.2.4.
### Table No. 2.4

**Shareholders Detail (users)**

<table>
<thead>
<tr>
<th>Age</th>
<th>Shareholdings</th>
<th>Duration of holding</th>
<th>Educational qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>No. of respondents</td>
<td>Group</td>
<td>No. of respondents</td>
</tr>
<tr>
<td>Below 30</td>
<td>18</td>
<td>Below 500</td>
<td>22</td>
</tr>
<tr>
<td>30-40</td>
<td>39</td>
<td>500-1000</td>
<td>47</td>
</tr>
<tr>
<td>41-50</td>
<td>32</td>
<td>1001-5000</td>
<td>07</td>
</tr>
<tr>
<td>Above 50</td>
<td>15</td>
<td>Above 5000</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>Total</td>
<td>104</td>
</tr>
</tbody>
</table>

Financial Institutions were also selected from different parts of India. This includes banking and non-banking institutions, which are lending money to the companies.

Financial analysts are mostly chartered accountants, consulting firms and investment agencies selected from different parts of India.
Suppliers were selected from different parts of India. These are the people who are directly or indirectly supplying goods, raw materials, etc to the companies.

Number of sample in each user group was decided mainly on the basis of the availability and readiness of the respondents.

SOURCES OF DATA

The required data for the study was collected both from primary and secondary sources.

a. PRIMARY DATA

The required primary data for the study was collected through interview schedule. Using a 4 (four) – point scale, responses on the perceived importance of items have been obtained from a sample of 200 different users.

The questionnaire consists of three parts (see Appendix III). Part I, consists of information on six main categories, viz

i. General information.

ii. Financial information.

iii. Personnel information.

iv. Marketing information.

v. Production information.

vi. Reports.
Part II, consists of Item-wise information on 55 items. Part III, consists of descriptive type questions.

Information collected from part I and part II will be used in the main analysis. Information from part III will be used only as supportive evidence at the time of conclusion and suggestions.

The selection of the various items for the construction of the questionnaire was based on the same considerations, as discussed under the first research area of the study.

b. SECONDARY DATA

The secondary data is drawn from the annual report of the companies, books, journals, magazines, newspaper reports and various other relevant publications.

For the purpose of comparison between preparers (companies) of the annual reports and the different users, the number of items selected should be uniform. Taking this into consideration, an "Index of importance of items disclosed by the companies" was prepared (see Appendix IV). The number and nature of the items are identical to the one used for different users (part II). The only difference here is that, the information from the companies was collected in an objective manner. Part I: details on main information disclosed by the companies have been computed from the 'index of disclosure', which has been used for the first area of this research study. The required data is collected for the year ended 31st March 2000.
SCORING OF ITEMS

Weighted scores were used for the questionnaire-based interview of different users. A four-point scale was adopted on the following basis:

❖ 4 indicates disclosure on an item perceived as “very important” and merits a score of 3.
❖ 3 indicates disclosure on an item perceived as “important” and gets a score of 2.
❖ 2 indicates disclosure on an item perceived as “required” and a score of 1 is given.
❖ 1 indicates disclosure on an item perceived as “not required” and a score of 0 is carried.

The maximum score (weight) applicable to an item for the sample size of 200 users is 600.

All the items included in the index of importance of items disclosed by the companies have been assigned a score of either zero or 1 (one). If an item is disclosed in an annual report, it has been assigned score 1. In case an item is not disclosed, score zero has been given.

Further, for the purpose of comparative analysis both the weighted and unweighted scores are converted into per cent.

ANALYSIS OF DATA

For the purpose of analysis of data and testing various hypotheses, the following statistical techniques have been used.
a) To find out whether the importance of items as perceived by the companies and the users are significantly different from each other t-test and F-test have been applied.

b) To ascertain the relation between the two groups on importance of items perceived by them, Spearman's rank correlation has been applied.

III. CORPORATE DISCLOSURE PRACTICES ABROAD

METHODOLOGY

To study and analyse the corporate disclosure practices abroad, the following research methodology has been adopted.

UNIVERSE AND SAMPLE OF THE STUDY

A sample of 50 annual reports of US companies was collected. These companies were selected on the following basis:

a. These companies were selected from the list of companies, which are trading on New York stock exchange.

b. Web site, "www. report gallery" provides annual reports of 2000 USA companies online. For the present study, only the companies, whose annual reports could be downloaded were selected.

c. Companies were selected from different industries, size, etc.
Only companies from the USA were selected due to:

i. Feasibility and easy availability of annual reports.

ii. In the United States, law, rules and regulations regarding corporate disclosures are well tested, reliable and effective over a period of time.

iii. The United States is always the first in introducing new regulations regarding corporate disclosure. Their disclosure practices are quite advanced as compared to other countries.

PERIOD

The period under consideration is one year, i.e. for the year ended 31st December 2000. This is selected mainly due to the availability of data. The data available online is for this specified period only.

SOURCES OF DATA

The required data for the study was also collected from secondary sources.

SECONDARY DATA

The secondary data was drawn from the annual report of the companies, books, journals, magazines, newspaper reports and various other relevant publications.

For the purpose of data collection, an “Index of disclosure” discussed in the first research area in this study was used. The same index of disclosure is used
to facilitate the comparison between disclosure practices in India and abroad. The required data is down loaded from the web site called www.report gallery (online).

SCORING OF ITEMS

In order to keep objectivity and fairness in the scoring system, the unweighted scoring method has been used in this area of research study. If an item is disclosed in an annual report, it has been assigned score 1. In case an item is not disclosed, score zero has been given.

For the purpose of calculating the company-wise and item-wise disclosure scores, first of all, a score sheet for all the items was prepared for each company separately. The total score of items for each company is obtained from this sheet. Then the scores assigned to different items in the score sheets of all the companies were added to calculate the item-wise score.

ANALYSIS OF DATA

In order to find out whether the disclosure of the companies in India and abroad are significantly different from each other t-test and F-test have been applied. To ascertain the relationship between the two groups of companies on corporate disclosure, Spearman’s rank correlation has been applied.

IMPORTANCE OF THE STUDY

i. To provide guidelines for the Government in making more disclosure laws, as per the expectations of the users of the annual reports.

ii. To highlight and understand the avenues of disclosure with reference to which standards or guidelines need to be issued by SEBI, ICAI.
iii. Guidelines for the management of different companies in making their disclosure policies more effective and informative.

iv. To highlight the importance of timely reporting of the information.

v. To highlight the utility of corporate reporting to the users of corporate annual reports.

vi. To highlight the statutory and legal requirements in India and other countries, and to understand the need for progressive disclosure requirements in India.

ORGANISATION OF THE STUDY

The study has been divided into ten chapters.

Chapter one deals with introduction, meaning, conceptual issues in corporate disclosure and studies on corporate disclosure.

Chapter two covers the research methodology used for the study.

Chapter three deals with corporate disclosure environment in India, major factors which govern corporate disclosure and the contents of corporate financial reporting.

Chapter four describe the corporate disclosure practices in India, identify the items of information which has been widely disclosed by most of the selected companies in India, and identify the selected companies which has been disclosing more information.

Chapter five deals with the analysis of corporate disclosure and the company attributes.
Chapter six covers the analysis of the attitudinal behavior of selected companies towards corporate reporting and the expectations of users of annual report.

Chapter seven describes the significance of “timeliness” in corporate disclosure and investigates the association between the timeliness in corporate disclosure of the selected companies and the corporate attributes.

Chapter eight explains the corporate disclosure practices abroad.

Chapter nine deals with contemporary issues in corporate disclosure.

Chapter ten covers, summary, findings, suggestions and conclusions of the study.

LIMITATIONS OF THE STUDY

1. Though the items included in the “Index of disclosure”, “Importance of items disclosed in the annual report as perceived by various users groups” and “Index of importance of items disclosed by the companies” were selected keeping in view the informational needs of the different users as revealed by the literature, there may still be certain items, which could not be included.

2. An increase in the number of the sample size may give a different picture altogether.

3. The study by its very nature lays emphasis on the number of items disclosed in the annual reports (quantity) rather than the quality of information contained in each. Thus, quantitatively reports of two companies may be the same, but they may vary widely in qualitative terms. i.e. in terms of nature, extent and type of information provided. Accordingly, analysis based on qualitative parameters would provide better results.