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A STUDY OF COMPANY CHARACTERISTICS ASSOCIATED WITH FINANCIAL DISCLOSURE PRACTICES IN INDIA

By

Monali Dasgupta

A Thesis Submitted in Partial Fulfilment of the Requirements for the Award of

Master of Business (Accounting)

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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

ABSTRACT

The objective of the study is to examine firms characteristics associated with aggregate financial disclosure practices of listed Indian manufacturing and trading companies for the financial year 1999-2000. Eight research hypothesis were developed. It is hypothesised that firm size, size of the audit firm, leverage, multinational company influence, and capital increase will be positively associated with disclosure of financial information by Indian companies, while ownership diffusion, liquidity and profitability will have no association with disclosure of financial information by Indian companies. Two types of disclosure indexes (weighted and the unweighted index) were constructed for measuring disclosure. Weights were assigned to the index based on the perception of financial analysts. A multiple linear regression analysis was conducted on the sample of 55 Indian companies using two models (Model 1 for unweighted index and Model 2 for weighted index). It was found that disclosure is positively associated with firm size, ownership diffusion, profitability and marginally with capital increase. All the other variables were found to have no effect on disclosure. In this study it was expected that the use of weights would improve the explanatory power of the models. However, no differences were noted between the results from weighted and unweighted disclosure index. Both Model 1 and Model 2 had indicated similar results.

DECLARATION

"I certify that this thesis does not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text."

Monali Dasgupta

Date: 31st March 2003

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I dedicate this thesis to my father. Without him I would not be the person I am today.

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CHAPTER 1
INTRODUCTION

1.1 Statement of the problem

In today's complex economic environment, disclosure of financial information is critical for the allocation of economic resources. Throughout the world, accounting bodies of developed and developing countries are formulating and implementing accounting policies and practices for fair presentation of financial information in investment decision-making processes. Globalisation has led companies to broadly disclose financial information for retaining and gaining investor confidence.

India is a rapidly developing country and globalisation has affected the Indian stock market extensively. In 1991, The Government of India introduced economic liberalisation policies to keep in pace with globalisation. During the last decade, these liberalisation policies have created a favourable climate for the companies to operate competitively in a market free from controls and regulations (Joshi & Abdulla, 1995, p. 106). Along with these developments, the stake of the investors has also increased because of a free and risky market. Due to the current nature of the market, investors are becoming more conscious to know the financial position of the enterprise for decision-making purposes. For rising investor demands and also due to the changes in the economy, financial reporting by companies in India needs to be more innovative, multipurpose and user friendly. Consequently, the role of the accounting profession in India is also becoming more complex to keep pace with the changing economy.

Many countries have their own sets of rules and regulations for accounting and financial reporting. Initially, based on the British accounting system, the established accounting principles in India comprises of the Companies Act (1956), the Securities Contracts (Regulation) Act, 1956 and the accounting standards laid down by the Accounting Standard Board (ASB) set up by The Institute of Chartered Accountants of India (ICAI).

The Companies Act (1956) and the Securities Contracts (Regulation) Act, 1956, are laid down by the Government of India. They are legally enforceable from the date of their initiation. Whereas ICAI is a private institution comprising of a group of professional chartered accountants.

The accounting standards laid down by ASB were not legally enforceable till 2000. ASB issued 15 accounting standards before 2000. After 2000, The Companies Act, 1956, gave legal recognition to some of these standards.[1]

After liberalisation of the economy, the Accounting Standards (AS) issued by ICAI have assumed greater importance, firstly, because of the opening up of the economy and expectations of the international business community and secondly, because of the greater expectations from the Indian society for reliable, credible and transparent financial statements. ICAI have been using its best endeavours to persuade government, appropriate authorities and industrial and business communities to adopt the accounting standards in order to achieve uniformity in the presentation of financial statements and also better disclosures. Research confirms that even before liberalisation, Indian companies made commendable improvements in their disclosure practices. Marston and Robson (1997, p. 134) found that disclosure by Indian companies have improved over the period 1982-83 to 1989-90. The reasons for improved disclosure included increased compliance with accounting standards and an increase in the disclosures required the by accounting standards. While in contrast Joshi and Abdulla, (1995, p. 119) noted that companies follow strict legal requirements in the disclosure and preparation of financial statements.[2]

[1] The Companies Act, 1956 gave legal recognition to those accounting standards that affect the profit and loss account and balance sheet only.

[2] It is to be noted here that legal requirements exclude the accounting standards issued by ASB. They were not legal requirements at the time of the study by Joshi and Abdulla (1995).

In a more recent study by Gupta, Saxena & Kaushik (2002), it was found that although Indian companies try to present their financial statements according to the accounting standards issued by ICAI, the companies are not properly following the accounting standards due to lack of legal pressure and auditors awareness of their duties.

Under the given situation it can be presumed that a study on Indian company disclosure practices and their association with firm characteristics could be interesting. Firstly, due to liberalisation, the economy has changed during the last decade resulting in increased investor demands for reliable and credible information by companies. Consequently, the companies need to adopt policies to disclose broadly to retain investor's confidence. Secondly, the amendment of the Companies Act, 1956, that gives legal status to accounting standards issued by ICAI, is an indication that accounting standards are necessary for broader and appropriate disclosures by companies, particularly in India, because past research confirms that companies tend to follow legal requirements only. Thus, increased disclosure is the current requirements by companies from both the perspectives of the investors and regulators. Both the groups would be interested to know which firms disclose more than others in order to make informed decisions for the former and evaluate regulations for the later. If certain firm characteristics are associated with disclosure by companies then a possible answer to the question which firms disclose more than others, can be given.

As mentioned before, after liberalisation Indian investors have become more conscious and demanded more information. However, in a study by Joshi & Abdulla (1994), it was noted that although corporate annual report is the most important source of information, they are hardly read by Indian investors. The more predominant method is by word of mouth. Among the number of ways in which information can be passed on to investors (including the corporate annual reports and other management reports, prospectus and media), this method is more popular. It is also called the informal method. The informal method means information passed on by the word of mouth by one investor to another or by a stockbroker to an investor.

Joshi & Abdulla (1994) investigated the information requirements of Indian private investors in annual reports. Their findings revealed that Indian investors have a wide range of information requirements depending on their level of sophistication to interpret information from the annual reports. It would be expected that more sophisticated investors would rely more on annual reports while others would depend on word of mouth.

However, information is not free and those that have significant connections in the firm have more information and those that don't loses out. As mentioned by Singhvi (1968), obtaining information, even through personal contacts, is very difficult in India due to the lack of cooperation from the corporate management.

In summary, it can be deduced that Indian investors are classified into several different classes so increased disclosure through more regulations may and may not be of much benefit to the investors, because not all of them have the ability to interpret information through annual reports. However, sophisticated investors (investors who have the expertise and knowledge to interpret information from annual reports) will benefit from more disclosures through regulations. Change in the economy after liberalisation has definitely led companies to rethink their disclosure policies as well as investors to rethink their investment plans. Thus, it is important for both sophisticated and unsophisticated investors to recognise which companies disclose more than others.

The study will examine the disclosure of Indian non-financial companies [3] and their association with eight definite firm characteristics for the period 1999-2000. The motivation and significance of the study is described in section 1.2.

[3] Financial companies have their own set of rules and regulations and including them would lead to ambiguous results.

1.2 Motivation of the study

In this era of globalisation, when the investors are crossing geographical boundaries, every enterprise wants to keep in pace with every other. Investors are more aware to know the financial position of the enterprise for decision-making purposes. Financial disclosure in the financial markets is becoming increasingly important. This study is motivated from the prior research on disclosure by Indian companies. Prior research indicated that Indian companies stick to the minimum level of disclosure required by law (Joshi & Abdulla, 1995). Prior research also indicated that although accounting standards did not have the support of law, they were gaining importance after the liberalisation policies of 1991 (Marston & Robson, 1997). The motivation of the study is to ascertain the impact of liberalisation of the economy and legal recognition of the accounting standards issued by ICAI, on the disclosures by Indian companies. In essence it examines the characteristics of firms that disclose more than others. As mentioned earlier, India being a fast growing economy, such a study is essential for the investors and the regulators.

Wallace and Naser (1995) argued that knowledge of the relationships among the level of disclosure and characteristics of reporting firms might be of use to regulators. They suggest two incentives for regulation. First, market forces may lead to inefficient resource allocation. Second, market forces may lead to economic solutions which are undesirable and therefore regulators should be cautious in imposing additional costs to firms, potentially putting the firm at a relative economic disadvantage.

Regulators need to determine firm characteristics of those companies that disclose more than others, so that they can impose regulations that are beneficial for all firms and not too costly for some firms. For investors it is equally important to know the firm characteristics that strongly affect the disclosure practices by companies for investment decision-making purposes. The significance and contribution of the study is discussed in section 1.3.

1.3 Significance and contribution of the study

Efficiency through competition is the main proposition of today's open economic system of India. With recent globalisation of trade and industry, it is essential for companies to make appropriate disclosures to remain in the market. However, in reality Indian stock market is not transparent and the Indian investors remain poorly informed and are guided by rumours. The study is important because it will examine the characteristics of those Indian firms that have high levels of aggregate disclosure and those that don't have high levels of aggregate disclosure. This will extend our understanding of the nature of firms that disclose most post liberalisation and also after the approaching mandate of the accounting standards by Companies Act 1956.

The study can guide the regulatory authorities in India to introduce further regulations or promote voluntary disclosure. Wallace & Naser (1995) have supported the above, where they argued that in an inefficient market additional regulations can put firms into economic disadvantage. Thus, regulators should be very cautious in imposing additional regulations. In addition, this study will add to the body of knowledge on disclosure practices of Indian companies. The organisation of the study is outlined in section 1.4.

1.4 Organisation of the study

The study is organised in the following manner. Chapter 2 deals with the literature review where prior research on Indian company disclosure is analysed. Chapter 3 deals with the theoretical framework and hypothesis development that has been used in the study. Chapter 4 discusses the research methodology of the study and chapter 5 deals with sample selection and data analysis of the study. Limitations and future research in outlined in Chapter 6 followed by the references.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Disclosure studies on India are relatively sparse compared to a number of other developed and developing countries. Besides, several factors are to be kept in mind before developing literature for the study. For example the purpose of the study needs to be considered for developing the literature. The purpose of this study is to measure the association between firm characteristics and disclosure practices of Indian companies. It was thought that in order to develop a constructive literature related to the purpose of the study, the legal (section 2.1.1) and the professional environment of India (section 2.1.2) needs to be reviewed. The significance of this section is to trace the development of the legal and professional environment over the years and till the time of the study so that the contributions of the legal and the professional environment towards disclosure by Indian companies (section 2.1.3) can be ascertained. Secondly, the limited number of studies on the Indian subcontinent has been examined thoroughly. Keeping in mind that this study is another sequence to the past studies on Indian company disclosures, this section tries to cover every aspect of the past studies (section 2.5, "Studies of India".). These studies include the studies of Singhvi & Desai (1968), Joshi & Abdulla, (1994, 1995), Marston and Robson (1997) and Gupta, Saxena & Kaushik (2002).

Prior research on other developed and developing countries, that have led to the development of this study have also been reviewed (section 2.4). In other words, studies that deal with firm characteristics and their association with disclosure have been reviewed. This section enables a clear understanding of the importance of disclosure studies from the point of view of several researchers throughout the world.

In order to measure aggregate disclosure, a section has been dedicated to examining the different measures of disclosure and different types of indexes used in prior studies (section 2.2). Mandatory, voluntary and aggregate disclosures have been examined in section 2.2.3. The theories (capital raising and costly contracting) used to explain by several researchers as to why some companies disclose more than others, has been discussed in the section 2.3.

2.1.1 The legal environment

Studies of Joshi & Abdulla, (1994, 1995) and Marston and Robson (1997) include reviews of the Indian accounting system and also the legal and professional regulations that govern Indian companies. The main motivation behind reviewing regulations by researchers is to ascertain the compliance of mandatory disclosures by Indian companies in their annual reports as well as examine the effectiveness of regulations in increasing the levels of aggregate disclosures by companies. Another motivation is to ascertain the amount of voluntary disclosures by companies, if any. For the literature review of this study, a review of regulations existing during 1999-2000 and also the review of the accounting profession of India during 1999-2000 are essential prior to a discussion on disclosure by companies.

Accounting professions throughout the world promote the view that accounting reports, when prepared according to guidelines will faithfully represent the underlying transactions and events of the reporting entity. Companies in India are guided by the Companies Act (1956). The primary accounting requirement of the Companies Act is that the accounts should give a "true and fair" view (Section 211). Indian company regulation is controlled by the Company Law Board (Section 10E-10F), rather than directly in the hands of judiciary. It controls the enforcement of the Companies Act and can exercise additional powers granted by the Central Government. The Companies Act (1956) was originally based on the British model because India was a colony of Britain for almost 300 years. The Act was first amended in 1960 to reflect local requirements. It was then subsequently amended several times (1965, 1969, 1974, and 1999).

The Companies Act (1956), its various schedules and its attached prescribed forms (the Companies [Central Government's] General Rules and Forms, 1956) require various disclosures from companies reporting under the Act. For instance, section 209-233 B of the Companies Act, 1956 gives statutory guidelines in connection with the accounts and audit of the companies. The statutory reports that are to be prepared under Companies Act (1956) include the balance sheet, profit and loss account, directors' report, auditor's report, notes to accounts and disclosure of accounting policies. If the Central government needs more information from companies then it can demand more information by publishing a notice in the Official Gazette (Section 615 of the Companies Act, 1956).

The other regulatory authority is the stock exchange. The Securities Contracts (Regulation) Act, 1956 makes it obligatory on the part of the company to periodically publish interim reports. This is a condition for listing with the stock exchange. No other form of disclosures is required under this Act.

Hence, a number of regulations are imposed on the Indian companies. However, the effectiveness of regulations for increased aggregate disclosure by Indian companies has been discussed later in the literature review (section 2.1.3).

2.1.2 The accounting profession

In India, the professional accounting body is The Institute of Chartered Accountants of India (ICAI). The Chartered Accountants Act of 1949, lays down the details of the work of ICAI, its constitution, admission and professional disciplinary procedures. The Accounting Standard Board (ASB) was set was up by ICAI in 1977 and the first standard was issued in 1979. The members of ASB are primarily professional chartered accountants. In addition, one chartered accountant from each of the offices of the Comptroller and Auditor General of India, the Central Board of Direct Taxes and the Company Law affairs are represented on the Board (Joshi & Abdulla, 1995, p. 107).

The process of standard setting has been based on the standard setting processes of the US and UK and other developed countries. Indian accounting standards are documents produced by ASB and subsequently approved by the council of The ICAI. The ASB's policy is to take international accounting standards (IAS) into consideration in developing its standards. Most of the standards issued by ASB conform to all material aspects of IAS. Joshi & Abdulla, (1995, p. 107) noted that the main objective behind these accounting standards is to lay down sound accounting policies to ensure proper accounting in order to improve comparability of financial statements.

During 1999-2000, 15 accounting standards were operational. A preface to the standards describes the procedure of implementing the standards. Prior to 1999-2000, out of the 15 standards, 14 standards were mandatory as per The Chartered Accountants Act of 1949. However, they were not legally enforceable as per the Companies Act, 1956. From April 1, 2000, some standards issued by ICAI are described mandatory by The Companies Act (1956), [section 211 (3C)].

As noted by Marston & Robson (1997, p. 118) the nature of the accounting profession in a country feeds back into the type of accounting that is practiced. Where the accounting profession is strong it is likely to be involved in development and promulgation of accounting standards. In India, the role of chartered accountants has changed immensely since its independence and ICAI has gained importance in the recent years with the liberalisation policies of the government. However, chartered accountancy is still based on small firms of accountants although the "Big 5" international accounting firms do have a presence.

The Chartered Accountants Act, 1949, lays down the duties of the auditor relating to the audit of companies. As per Section 224 of the Companies Act, 1956, Indian accountants are restricted to not more than 20 audit clients per qualified chartered accountant in their practice.

Table 1, "List of Indian Accounting Standards", is a comprehensive list of accounting standards that were operational prior to the year 1999-2000. The table also indicates when the accounting standards first came into force and when it was declared mandatory by ICAI. It is to be noted here that these accounting standards were not considered mandatory as per the Companies Act, 1956 till 1999-2000, after which some of them enjoyed legal enforcement (refer to footnote 1).

2.1.3 Effectiveness of regulations and accounting profession in aggregate disclosure by Indian companies.

The main purpose of external financial reporting is to meet the multiple information requirements of the investors and creditors (Joshi & Abdulla, 1994, p. 7). The amendments brought into the Companies Act, 1956 and the accounting standards issued by ICAI are designed to meet the needs of the several user groups and to reflect local requirements. For instance, the Companies (Amendment) Act, 1988 (section 219) brought about a change in the corporate financial reporting in India. As per this amendment, a company listed with the stock exchange could send its shareholders abridged accounts. This change was made on the basis that Indian investors rely heavily on their instinct and friendly tips and general market behaviour of share prices rather than extract information from the annual reports (Joshi & Abdulla, 1995, p. 112). Another reason that is usually cited is the huge cost in the publication of detailed annual reports (Joshi & Abdulla, 1994, p. 7). The abridged financial statements represent minimum disclosure by companies. However, if the companies want, they can disclose detailed information. Joshi & Abdulla (1994, p. 12) noted that abridged form of reporting needs to be reconsidered. The information disclosed has been reduced considerably and therefore, this kind of annual report appears to be of reduced importance to investors. High performing companies, which once adopted a more or less full disclosure policy, have now, curtailed a range of information they revealed earlier. Joshi & Abdulla (1995, p. 12) suggested that companies should be required to prepare comprehensive reports to more fully respond to diverse investors and other users' needs. The overall implication is that regulations have caused Indian companies to have weak incentives to disclose over and above that required by the Companies Act, 1956.

Table 1

List of Indian accounting standards

Accounting standard no. (AS)	Description	Implementation year (Advisory)	Dates from which it became mandatory (ICAI)
AS 1	Disclosure of accounting policies	1979	1993
AS 2	Valuation of inventories	1981	1999
AS 3	Cash flow statements (previously called "changes in financial position"	1981	2001
AS 4	Contingencies and events occurring after the balance sheet date	1982	1995
AS 5	Prior period and extraordinary items and changes in accounting policies	1982	1996
AS 6	Depreciation accounting	1982	1995
AS 7	Accounting for construction costs	1983	1993
AS 8	Accounting for research and development	1985	1993
AS 9	Revenue recognition	1985	1993
AS 10	Accounting for fixed assets	1985	1993
AS 11	Accounting for changes in foreign exchange rates	1989	1995
AS 12	Accounting for government grants (previously called 'accounting for capital based grants' implemented in 1981)	1992	1994
AS 13	Accounting for investments	1995	1995
AS 14	Accounting for amalgamation	1983	1995
AS 15	Accounting for retirement benefits in the financial statements of the employees.	1995	1995

A review of the Indian accounting standards by Joshi & Abdulla (1995) revealed that Indian accounting standards have many alternative choices and financial statements prepared under different accounting alternatives are less comparable. Joshi and Abdulla (1995) also noted that the ASB lack representatives from all categories of users and that there is an absence of public hearings. Also, the basis for selecting standards for enforcement is not apparent. The major suggestion by Joshi & Abdulla (1995) was that ICAI should review its accounting standards and in order to monitor or to ensure compliance must incorporate legal enforcement. They found that a majority of corporate sector companies follow strict legal requirements in the disclosure and preparation of financial statements. Apart from a few very large progressive companies, no additional disclosures were found by the companies. The findings of Joshi & Abdulla (1994) revealed that Indian investors lack confidence in the company management's future forecasts. In addition Joshi & Abdulla (1995, p. 120) suggested that there is absence in the reporting of future forecasts among Indian companies due to competitive reasons and conservative attitudes of management. Joshi & Abdulla (1995, p. 120) suggested that ASB should ensure that accounting standards are universally applied and ICAI should establish a Financial Reporting Council (FRC) to oversee ASB. The council should prepare a conceptual framework for financial reporting purposes to meet the needs of external users, since at present, external users are presented with financial information on a take-it or leave-it basis.

In a study by Gupta, Saxena and Kaushik (2002) it was noted that enterprises in India put very little information about the policies adopted by them in their financial statements. The companies do not disclose all the accounting treatments as per the norms of the accounting standards issued by ICAI. The auditors are also unaware about the importance of the accounting standards and they perform their tasks as a duty and don't want to take risk on account of their own profit.

2.1.4 Summary

It was mentioned in the early stages of this literature review that a review of the regulations and the accounting profession of India will give insight into the effectiveness of regulations in aggregate disclosures by Indian companies. It was found after the review that most Indian companies strictly follow the regulations laid down by the Companies Act, 1956. In the event where the Companies Act does not require detailed disclosure, companies may not publish detailed annual reports. ICAI has been mostly successful in pursuing companies follow their accounting standards, but the standards and standard setting processes have several drawbacks. For instance most of the standards are initially advisory. Besides until 1999-2000, the standards did not have legal enforcement.

The next section discusses the different measures of disclosure. The reason for discussing different measures of disclosure is to identify the meaning of the term disclosure and then progress with the discussion of types of disclosure. The definition of the term aggregate disclosure has been derived through this discussion. The different indexes that can be used to measure aggregate disclosure has been discussed first in the next section.

2.2 Measure of disclosures

2.2.1 Introduction

The term 'disclosure' has various meanings from the point of view of researchers. Some use it to mean fuller disclosure levels while others use it to mean high quality of information disclosure. It is a difficult task to measure disclosure because users of information statements have varied information requirements. There are different categories of users (such as investors, debtors, creditors, employees, regulatory authorities) and various types of disclosure (such as voluntary, mandatory and aggregate disclosure). For a long period of time researchers have used indexes to measure disclosure. Amongst the various types of indexes used, researchers have used weighted and unweighted index or both. It depends on the researcher and the research objectives to decide on the measure of disclosure that was adopted.

In the next section both weighted and unweighted indexes have been discussed in detail followed by the explanations of the terms mandatory, voluntary and aggregate disclosures.

2.2.2 Weighted vs unweighted indexes

2.2.2.1 Weighted index

Singhvi (1968) was the first to examine adequate disclosure practices in the annual reports of Indian companies. Singhvi (1968) used the term 'adequate disclosure practices' to mean the completeness, accuracy and reliability of disclosures in corporate annual reports. At the time when Singhvi (1968) conducted the study, only the Companies Act, 1956 was only in force. ICAI had not issued any standards. Thus, by the term 'adequate disclosure', Singhvi (1968) meant disclosure through regulation and voluntary disclosures. In order to measure disclosure, a disclosure index was developed. The disclosure index used by Singhvi (1968) was the modified version of the one used by Cerf (1961) for measuring disclosure by companies in United States. Singhvi (1968) added and deleted a few items to the index developed by Cerf (1961). Cerf's (1961) index consisted of 31 items of information.

Three items were deleted because they were not relevant to Indian corporations. Six items were added to the index on the basis of the need of these items expressed by other researchers. Singhvi (1968) assigned weights to the items to note distinctions in their relative importance as indicated by various sub-committees of the Committee on Corporate Information of United States, and also as indicated by the security analysts interviewed.

Cerf (1961) introduced the method of assigning weights. Cerf (1961) selected the items of information on the basis of a study of the investment decision process, a review of literature describing how the decision should be made, interviews with security analysts and an examination of analyst reports. Weights were assigned to disclosure items to identify the relative importance of the items.

However, the more popular method that is adopted by researchers is the method developed by Buzby (1975).

Buzby (1975) constructed a disclosure index based on the following criteria. Firstly, the item had to pertain to a set of industries, which could be characterised as domestic manufacturing firm without significant extractive operations. By excluding certain industries (for example financial, retailing and extractive) the number of items of information to be included in the questionnaire could be kept manageable. Besides, industry restriction also added a degree of homogeneity to the questionnaire items. The second criterion required that there should be a reasonable potential inter-firm variability in presenting the item in the annual report. This criterion also aided in limiting the number of items to be included in the questionnaire. The third criterion required that each item be applicable to every firm in the annual report sample or be of such nature that a cross check would be available to determine the item's applicability to a given firm. This restriction helped to determine whether the absence of an item from an annual report could be considered a case of non-disclosure. Thirty-nine items of information were used to construct the disclosure index.

A questionnaire was sent to 150 financial analysts. The purpose of the questionnaire was to obtain weights for each item of information according to the opinions of the financial analysts. Weights were assigned to each of the thirty-nine items of information on the basis of the weights assigned by the financial analysts. The weight for each item was scaled between the ranges of 1 to 4. The weight of a particular item was calculated by summing the integer values assigned to the item and then dividing that total by the by the number of individuals who responded to the item. This measure of disclosure was applied to the sample of 88 US companies. Many researchers subsequently followed Buzby's weighted index. The next section deals with the characteristics of unweighted index.

2.2.2.2 Unweighted index

Some researchers prefer to use an unweighted disclosure index. Cooke (1989, 1992) argued that attaching weights to items of information is irrelevant because those enterprises that are better at disclosing 'important items' are also better at disclosing 'less important items' or in other words, firms are consistent with their disclosure policies. He used the above argument because the focus of his research was not one group of users but all user groups. Cooke (1991, p. 179) stated that "there is no doubt that one class of user will attach different weights to an item of disclosure than another class of user but an approach which tried to encapsulate the subjective weights of a multitude of user groups would be unwieldy and probably futile". Wallace and Naser (1995, p. 331) suggested that weights are elicited from the perceptions of one or two user-groups given the cost of pooling their opinions; but one or two user groups are only a subset of users of the annual financial reports".

In an unweighted index 1 and 0 indicates the presence or absence of an item respectively. Some other researchers who used unweighted index are Inchausti (1997), Davies & Kelly (1979), Ngurah (1990), Ahmed & Nicholls (1994) and Hossain et al., (1994).

2.2.2.3 Weighted and unweighted index

The determination of an index item weight is usually based on the relative perceived importance by any one user group (Cerf, 1961, Singhvi & Desai, 1971, Buzby, 1975). For example, financial analysts may be asked to allocate weights on items of information. Alternatively, an unweighted index scores each item equally (Cooke, 1989).

Even though the weighted index has been often used in accounting research, it has some drawbacks. For example as noted by Marston & Shrives (1991) there is an unclear theoretical justification for the weighting and weighting a particular item does not represent the exact importance of the item. It is just the perception of one particular user or a class of users.

Thus unweighted index is more popular amongst others. Chow & Wong-Boren (1987, p. 537) had suggested that weighted and unweighted indexes are interchangeable because their results are equivalent.

2.2.3 Mandatory vs voluntary vs aggregate disclosure

Amongst the different types of disclosure of financial information, researchers commonly discuss mandatory disclosure and voluntary disclosure or both. Aggregate disclosure includes both voluntary and mandatory disclosure. The next section discusses the different types of disclosures and the prior studies on each particular type of disclosure.

2.2.3.1 Mandatory disclosure

In order to protect the interests of shareholders and other interested parties, there are various legal and institutional requirements governing corporate disclosure of financial information. These are called mandatory disclosures. If a company's securities are listed in the stock exchange, the company has statutory obligations (listing agreement of SEBI) to comply with the regulations under the stock exchange requirements.

In addition, those business that are termed companies, have to follow the disclosure requirements of the Companies Act, (1956). These legal requirements constitute the minimum amount of disclosures required by the companies. Some studies have considered disclosure of mandatory items of information in the corporate annual reports (Ahmed & Nicholls, 1994, Wallace Naser & Mora, 1994, Wallace & Naser, 1985). In countries like Bangladesh (Ahmed & Nicholls, 1994) found that companies do not even comply with minimum legal requirements.

2.2.3.2 Voluntary disclosure

The managers of the companies have discretionary powers to disclose more information than the minimum requirements. These are voluntary disclosures. As mentioned earlier, different users have different information requirements.

For example, shareholders are concerned with how much dividend they have earned during the year. Potential investors are interested in the potential income and the past performance of the company. Creditors are interested in the company's ability to service their loans. Employees are interested in the company's ability to pay their wages and salaries. Therefore, in order for a company to determine what information to disclose the management has to weigh its costs and benefits and only when benefits exceed costs, the management will disclose information voluntarily. In such situations agency theory can be used to describe the behaviour of managers in disclosing information. In some countries managers have incentives to disclose more information than the legal requirements. For example researchers like Chow & Wong-Boren, 1987 (Mexico) and Raffournier, 1995 (Spain) have examined voluntary items of information disclosed by the companies in such countries.

2.2.3.3 Aggregate disclosure

Some studies consider both voluntary and mandatory items of information (Singhvi, 1968, Wallace 1987, Cooke, 1989, Inchausti, 1997). Researchers have measured aggregate levels of disclosure in their studies. Aggregate levels of disclosure include both voluntary and mandatory items of information, although the term "aggregate" levels have been interchangeably used as comprehensive, adequate or fuller levels of disclosure. Each term has its own meaning depending on the research purpose.

2.2.3.4 Summary

This section has dealt with different types of indexes that are used to measure disclosure and different types of disclosure are popular amongst researchers. The next section deals with the various company characteristics and their association with disclosure. The next section also leads to the development of the theory for the study.

2.3 Company characteristics and disclosure

Cerf's (1961) study was designed not only to identify major disclosures, but to explain through association with corporate attributes why some firms might disclosure more than others. A number of corporate characteristics have been examined across studies amongst which size of the firm, audit firm size, leverage and listing status are a few common ones. Results from these studies are mixed, probably because of the differing nature of dependent (disclosure) and the independent variables (corporate characteristics). In other words, the term 'disclosure' has a different meaning (that is the method in which it is measured) from the point of view of researchers and similar corporate characteristics can be measured in a variety of ways. For example, asset size or number of shareholders can measure size.

One way of categorising the studies are through the objective of the study. Some studies are directed towards 'capital raising' issue while others deal with 'costly contracting'. Researchers like Singhvi & Desai (1971) suggest that companies have higher quality of disclosure because they want to raise capital from the market. Their study provides empirical evidence of the influence of corporate disclosure of information on stock prices.

Some researchers try to explain differing levels of disclosure observed by formulating hypothesis and carrying out univariate tests and/or multivariate tests to see if selected company characteristics are successful in explaining different disclosure scores. "The selection of explanatory variables can be theory driven, in which case one or more relevant theories are identified and the model follows from the theory. Agency theory is frequently employed in this context, either alone or in conjunction with other theories" (Marston & Robson, 1997, p. 114).

2.3.1 Capital raising

Singhvi and Desai (1971, p. 136), indicate that in the absence of adequate corporate disclosure of information, dispersion in the market price of a security is likely to be wider than it would be otherwise. Consequently, some corporations sell their securities at a price, which is higher than the intrinsic value of the security, while others sell for less than the intrinsic value. The cost of capital in the former case, therefore, is likely to be lower than in the latter case if the intrinsic value of the security is same for both. This shows that investment decisions by the investing public affect the price of capital in the security markets, which in turn affects decisions by corporate managements for investment of funds in new capital good or inventories. Singhvi & Desai (1971) state that investors make uninformed decisions because of lack of information in the security market. The quality of disclosure is one of the variables that affect the prices of securities and as corporate disclosure increases the variations in market prices of security tends to narrow down.

In India, companies are expected to disclose more while raising capital from the stock market. This is primarily because of two important reasons. Firstly, when a company raises capital it will have adhered to a number of stock exchange requirements and also regulations of the Companies Act (1956). Secondly, in order to raise capital, the companies will disclose more to display its capabilities of better returns to investors and also in order to be competitive with other firms in the domestic and international market. This type of disclosure is usually voluntary.

Thus, it can be expected that a company that raises capital from the stock market will produce additional information because firstly it will comply with all legal requirements and secondly it will attract investors by additional voluntary information.

2.3.2 Costly contracting

Agency theory has been very popular amongst several researchers to explain the varying levels of disclosure within companies. Jensen & Meckling (1976, p. 300) define agency relationship as being a "contract under which one or more persons [principal(s)] engage another person (the agent) to perform some service on their behalf which involves delegating decision making authority to the agent". The relationship between the principal and the agent gives rise to 'agency costs', because the agent is assumed to be utility maximiser, who acts in his/her best interests, which may not be the best interest of the principal.

The magnitude of the agency costs incurred is related to the amount of the conflict of interest between the agent and the principal. Agency costs increase if there is a significant conflict between the managers and the shareholders. Hence, in order to control the agency costs, agent and the principal enter into a contract.

Agency theory is widely used by researchers to explain the variation in the levels of disclosures amongst companies. Researchers like Marston & Robson (1997) have used agency theory to explain why large companies with a large asset size disclose more than other firms. Wallace & Naser (1995) have used agency theory to explain why firms with large number of shareholders and audited by large audit firms (monitoring costs) disclose more than other firms.

Agency theory provides a list of possible determinants of disclosure that can be tested. This proposition is supported by the study of Marston & Robson (1997) on Indian companies. They tested level of disclosure by Indian companies associated with firm size. They argued that firms that have large asset size are more visible in the eyes of the investors and the regulators. Hence they tend to disclose more than others do.

In countries like India, agency theory can be appropriately applied because while agents (managers) stick to minimum statutory requirements, principals (investors) demand more information. This gives rise to a conflict of interest. When there is a heavy conflict between the agents and the principal, production of information may be a motivation for reducing agency costs. Also, it is noted that agents will produce information to the extent that the benefits of production of information exceed the costs of production of information.

2.3.3 Summary

In summary, this section deals with two clear theories, capital raising theory and agency theory. Both the theories deal with the manager's behaviour to react in particular market conditions. The next section deals with the studies on developed and developing countries on aggregate disclosure levels by companies. An overall review of these studies will attempt to establish the motivation and significance of the current study.

2.4 Studies of developed vs developing countries on aggregate disclosures.

If disclosure by companies is related to the environment in which it is situated, then it can be argued that corporate characteristics will influence corporate reporting differently in the developed and developing countries. However, many developing countries like India had a British influence in the past.

> On this basis, it is possible to argue that exposure to the British ways of doing business will result in the adoption of Anglo-Saxon accounting values which respond to the demands and opportunities of a newly-industrialised society rather than indigenous cultural forces. Again in contrast indigenous cultural forces may be sufficiently powerful to impact on

> accounting values that will make it different from the British style of accounting (Wallace & Naser, 1995, p. 312).

A review of the studies on disclosure of developed and developing countries will identify if there is any major impact of the local environment in the disclosure by companies. Also, it will enable a clear understanding of disclosure by companies in annual reports throughout the world.

Singhvi (1968) and Singhvi & Desai (1971) conducted similar studies on adequate disclosure practices of India and USA. Singhvi (1968, p. 30) stated that annual report to Indian stockholders is a very important form of periodical corporate disclosure. The particular reason for the importance of annual reports in India are that: (1) the Indian corporations are not required to prepare a separate report, similar to 10-K report in the United States, for any regulatory agency, (2) information through personal contact is extremely difficult to obtain due to lack of co-operation from corporate managements and (3) the non-company sources of information are very inadequate and seldom up to date. Thus, it is evident that apart from different regulations, the environment of the country in which the companies operate, contributes much to their actions and disclosure levels.

In an opposing argument, although Indian corporate annual report is a major source of information, investors in India (Joshi & Abdulla, 1995) are expected to make more decisions based on word of mouth or instinct. The level of sophistication amongst general investor groups in these countries will be very poor because although most investors have the money to invest but they have little knowledge to interpret corporate information and make decisions. Also, as stated by Singhvi (1968, p. 40), the majority of Indian investors associate stock market with gambling. Consequently, a very small segment of the Indian population belongs to the stockholder class. In summary, companies tend to disclose depending on the beliefs and attitudes of people of the country.

A brief review of the studies of developed and developing countries on aggregate disclosure are given below. Each individual study is unique, depending on the country on which it is done and also the research objectives of the author. However, some developing countries have similarity with India because of the British ways of accounting along with some cultural similarity.

Studies on developed countries bear resemblance with the current study because they either have same theoretical framework or similar company characteristics that were examined or a similar disclosure index that was adopted to measure disclosure.

2.4.1 Developed countries.

There are a number of studies that have investigated relationships between corporate characteristics and disclosure practices of several developed countries. For example, studies have been done on companies in Australia (Davies & Kelly, 1979), Japan (Cooke, 1992, 1993), Sweden (Cooke 1989), US (Cerf, 1961, Singhvi & Desai, 1971, Buzby 1975, Imhoff, 1992), Hong-Kong (Wallace & Naser, 1995) and Spain (Inchausti, 1997). The studies can be classified into a number of different ways.

Firstly, the point of distinction may arise on the use of theory by the researcher. Secondly, there may be variation in the type of index adopted between researchers. Thirdly, variation in the number of company characteristics or variation in the measure of the same company characteristic may arise. Fourthly, there may be differences in results due to different statistical measures adopted by the researchers. Thus the studies that have been discussed addresses these four issues critically.

Cerf (1961) was the first to point out empirically that the quality of disclosure is affected by a number of variables and often there is interdependence between these variables. Cerf's study is very interesting because it is one of the first kind to show the relationship between disclosure and firm characteristics.

The purpose of the study was to identify the firm characteristics associated with disclosure in annual reports of US companies.

Cerf (1961) used a theory to explain why some firms disclose more than others. In order to measure disclosure, Cerf (1961) developed an index of disclosure by specifying and weighting the types of information that might appear in the annual reports.

This index was then applied to the annual reports of 527 US companies. The annual report scores were used to assess whether a number of corporate characteristics were associated with the extent of disclosure.

The four major firm characteristics that were used were asset size, ownership distribution, profitability and listing status. Cerf (1961) found that there was a positive association between disclosure and asset size, number of shareholders, listing status and rate of return. This confirmed that large listed firms disclose more than others. One of the drawbacks of this study is that the significance of these relationships was not tested statistically. As indicated by Singhvi & Desai (1971, p. 131) analysis by means of classes, as Cerf has done, is not sufficient.

Cerf's work was refined and extended by Singhvi & Desai (1971). Singhvi and Desai (1971, p. 136), indicate that in absence of adequate corporate disclosure of information, dispersion in the market price of a security is likely to be wider than it would be otherwise. This implies that investment decisions by the investing public affect the price of capital in the security markets, which in turn affects decisions by corporate managements for investment of funds in new capital goods or inventories. In brief Singhvi & Desai (1971) used the 'capital raising theory' to explain why some firms disclose more than others. A disclosure index was developed similar to that of Cerf (1961) and weighted as per the ratings of the security analysts. Singhvi & Desai (1971) added some more independent variables to the ones already used by Cerf (1961). Their independent variable list included asset size, listing status, number of shareholders, earnings margin, rate of return and audit (CPA) firm size.

In order to measure the association between the independent variables and quality of disclosure, a multivariate linear regression model was designed. Singhvi & Desai (1971) found a positive association between disclosure and asset size, number of shareholders, CPA firms, rate of return and earnings margin. Asset size, number of shareholders and CPA firm were significant at 0.01 level with chi square test. Rate of return was significant at 0.02 level and earnings margin at 0.05 level.

Although Buzby (1975) used only two corporate attributes in his study (size and listing status),[4] his method of weighting each item of information in the disclosure index has been adopted subsequently by various researchers. Buzby constructed a disclosure index based on the informational requirements of financial analysts. Thirty-nine items of information were used to construct a disclosure index. Weights were assigned to each of the thirty-nine items of information on the basis of the weights assigned by the financial analysts. This measure of disclosure was applied to the sample of 88 US companies.

The results obtained by Buzby indicated that the extent of disclosure in annual reports is positively associated with the size of company's assets and not with the listing status. Buzby (1971) used Kendall rank correlation coefficient to measure the extent of disclosure and asset size and listing status. These results are consistent with those of Cerf's (1961) results but not with that of Singhvi & Desai (1971).[5]

Barrett (1976) conducted a study on disclosure and comprehensiveness of financial reporting in annual reports of companies in United States, Japan, UK, Germany, France, Sweden and Netherlands. The index constructed by Barrett (1976) to measure disclosure was adopted from the studies of Cerf (1961), Singhvi & Desai (1971) and Buzby (1971). The weighting of the index was also similar to that of Cerf, Singhvi & Desai and Buzby. Barrett's study compared the level of disclosure between British and American firms and firms in other countries.

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[4] Listing status can take several forms. For instance, Buzby (1975) used listing status to mean companies listed in NYSE or otherwise.

[5] Several points should be kept in mind while interpreting the results. As mentioned by Buzby (1975, p. 30) that the extent of disclosure is not synonymous with the adequacy of disclosure; rather, it is a subcomponent of adequate disclosure.

It was seen in this study that British and American firm's financial statements were more comprehensive than compared to other countries. Barrett indicated that the general belief that there is a link between the quality of financial reporting practice and degree of efficiency of national equity markets is valid. Thus, a conclusion can be drawn that Anglo-American equity markets are more efficient than the rest of the countries that were tested.

Barrett's (1976) study is important because in an international setting even the developed countries have varying levels of disclosure within themselves. So one can say that disclosure by companies depends on each individual country and its environment and also disclosure impacts the stock markets immensely.

Imhoff (1992) examined several firm characteristics that are related to the accounting quality[6] (similar to the term fuller disclosures) of US firms and also if the security price reaction to accounting news varies based on differences in accounting quality. Earnings were the most critically examined variable in this study. The two other independent variables apart from earnings announcement were leverage and firm size. It was hypothesised in the study that high (low) quality firms were expected to be associated with more (less) predictable earnings; smaller (larger) forecast revisions and forecast errors; and fewer (more) bad news surprises at earnings announcement date. Also it was hypothesised that firms with relatively high (low) accounting quality will have a larger (smaller) unexpected price response.

Seven industries were selected for the study. A total of 185 companies comprising of all industries were examined. A total of 266 security analysts that specialised in a particular industry type were asked to give opinions on the accounting quality of their industry. Analysts accounting quality ratings were found to be higher for larger firms and firms with relatively low debt-equity ratio. Accounting quality differences were also noted in several important characteristics of earnings. These differences indicate that firms with relatively high (low) accounting quality tend to have more

[6] High accounting quality refers to the full financial disclosures by companies.

(less) predictable earnings; less (more) annual earnings forecast revisions; smaller (larger) annual forecast errors and fewer (more) bad earnings announcements. It was also found that firms with higher accounting quality generate larger and more significant price responses. Apart from US there have been disclosure studies in other developed countries too.

Cooke, (1989) examined the disclosure practices of Swedish companies and Japanese companies (Cooke, 1992, 1993) in their corporate annual report. For these two countries the various variables examined by Cooke were the size, listing status,[7] number of shareholders, industry type and parent company relationships. Cooke (1992, 1993) used annual reports of Japanese and Swedish companies to measure disclosure. Cooke (1992, 1993) found size, listing status and industry type to be significant variables. Cooke (1992, 1993) used an unweighted index comprising of a number of information items. Cooke (1993) adopted the capital raising approach and argued that the prime motive of disclosure is to raise capital at lowest cost. Companies increase aggregate disclosures because they are more prone to public scrutiny. That is why listed companies disclose more than unlisted and those with multiple listing disclose more.

Inchausti (1997) conducted an empirical analysis of the impact of market pressure and pressure from regulatory agencies on the accounting information disclosure by Spanish firms. Inchausti (1997) used positive accounting theory (including agency theory, political process theory and signalling theory) to explain the association between firm characteristics and disclosure. An unweighted index was used to measure disclosure in 49 annual reports. In order to analyse the effect of regulation on disclosure practices by companies, annual reports of three different years were examined. Results indicated that regulation had an impact on the improvement of disclosure practices of Spanish firms. Inchausti (1997) also examined several corporate characteristics (namely size, stock exchange listing, profitability, leverage, audit firm, industry and dividend payout) that influence disclosure

[7] Cooke used the term listing status to mean those companies with domestic listing, companies with multiple listing or listed vs unlisted companies.

practices. Using a stepwise regression model it was found that size, audit firm and stock exchange listing have positive influence on level of disclosure.

Wallace and Naser (1995) examined the comprehensiveness of disclosure and firm characteristics in the companies listed in the Hong Kong stock exchange (HKSE). Wallace & Naser (1995) used positive accounting theory to explain why some firms disclose more than others.
The firm characteristics that were considered were foreign registration of firms listed on HKSE, profit margin, earnings return, liquidity ratio, leverage, firm size, proportion of shares held by outsiders, market capitalisation, scope of business operations and auditor size. In order to measure disclosure, an unweighted disclosure index was constructed to suit all user groups.

The disclosure index consisted of mandated items, common or a usual item that appear in the annual reports and items that have appeared in the previous studies. In total, 30 items of information was used in the disclosure index. A sample of 80 annual reports was used in the study and results (regression analysis) indicated that profit margin, asset size, scope of business operations and auditor size were significant variables.

2.4.2 Developing countries

The study that can be cited for aggregate disclosure practices by companies in a developing country is the study of Ngurah (1996) on Indonesia. Ngurah (1996) examined the association between disclosure and firm characteristics of Indonesian companies. The firm characteristics that were examined were asset size, number of shares owned by public, rate of return and earnings margin in Indonesian company annual reports. A disclosure index was constructed and weighted based on the opinions of managers, financial executives and stockbrokers. A total of 191 responses to the questionnaires were received and disclosure was examined in 63 annual reports. However, results showed that there was no association between disclosure levels and firm characteristics. The study did not give any explanations regarding why no variables were associated with disclosure.

Several studies on either voluntary or mandatory disclosures by companies have been done on developing countries. For instance, Chow & Wong-Boren (1987) examined the voluntary disclosure practices of Mexican companies, Tong, Kidman & Cheong (1990) as well as Hossain, Tan & Adams (1994) examined the voluntary disclosure practices of Malaysian companies. Ahmed & Nicholls (1994) examined the mandatory disclosure practices of Bangladeshi companies, Patton & Zelenka (1997) examined mandatory disclosure practices of companies of Czech Republic and Owusu-Ansah (1998) examined the impact of corporate attributes on the extent of mandatory disclosure practices of companies in Zimbabwe.

2.5 Studies on India

Singhvi (1968) was the first to examine the some of the characteristics of Indian corporations associated with the quality of disclosure in the annual reports. Singhvi (1968, p. 29) argued that

> Adequate and accurate corporate disclosure of information is important to allocate economic resources efficiently in a market economy and to enable investors to make investment decisions which will safeguard their interest against fraudulent securities practices. The quality of corporate disclosure influences the quality of investing decisions made by the investing public Singhvi (1968, p. 29).

The study also identified some of the probable implications of the quality of corporate disclosure in annual reports.

In order to measure the quality disclosure, Singhvi adopted the index used by Cerf (1961). However, a few more items were added to the index to make it more comprehensive and adequate. Singhvi (1968) admitted that if all those items that

were included in his index were included in the annual reports of Indian corporations then investors would make more informed decisions.

Weights were assigned to the items of information on the basis of the opinions of security analysts (number of security analysts was not given in the study) and various sub-committees of the Committee of Corporate Information.
The weights ranged from one to four. By using the index Singhvi quantified the quality of disclosure in the annual reports. The sample of 45 annual reports (from the investors Indian year book) represented four percent of the entire population of companies listed in the stock exchange.

Singhvi (1968) examined six company characteristics associated with quality of disclosure. The six corporate characteristics that were examined were asset size, profitability, rate of return, size of the audit firm, multinational company (MNC) influence and ownership distribution. Using the Chi Square test, it was found that asset size, rate of return, type of management and number of stockholders are significant variables at 1 % level. Earnings margin was found to be significant at 5 % level while size of the audit firm was not found to be significant at all.

The study of Singhvi (1968) also identified some of the probable implications of the quality of corporate disclosure in annual reports.

> More superior the quality of corporate disclosure of information, the lesser the scope for speculation, and the narrower will be the price fluctuations. Since prices of corporate disclosure are based on estimated earnings and the earnings are estimated on the basis of the information available about corporate operations, the price fluctuations are likely to be less wide with the better disclosure of information Singhvi (1968, p. 39).

Results from Chi square tests indicate that quality of disclosure is positively associated with security prices at 1 % level.

One of the major limitations of the study of Singhvi (1968) is that it is a very old study. India had changed politically and economically since 1968.The study is not relevant in the current context. For example, for the variable 'type of management',

Singhvi (1968) argued that the quality of disclosure by Indian management is inferior to the quality of disclosure by foreign management. Indian managements were considered inferior because most managers did not have a professional qualification and thus they were less aware of the advantages of better disclosure of information as well as less responsive to the needs of the investing public. The situation has changed in India now and most Indian managers have professional qualifications. However, multinational corporations still produce more information, because they have to generate a large amount of data for their own use and thus they can disclose more. Besides, when they operate in different countries they have to comply with regulations of all such countries thereby generating more information than domestic companies.

Another important limitation is the only univariate analysis was conducted on the data. In order to determine the relationship between more than two corporate characteristics and disclosure a multivariate analysis is considered more appropriate. Multivariate analysis is multi-dimensional and allows the effects of one or more variable to be considered at one time.

Marston & Robson (1997) did a more recent study on disclosure by Indian companies. Marston & Robson (1997) examined disclosure in the annual reports of large Indian companies for the period 1982-83 and 1989-90. The purpose of the study was to examine the increase in disclosure by Indian companies between 1982-83 and 1989-1990.

They adopted the Barrett's (1976) seventeen-point index for measuring disclosure. Marston & Robson (1997) argued that Barrett's (1976) index is simple and Indian financial reporting is relatively unsophisticated. A complicated index with many items of information will have many items that are not applicable to Indian companies.

This is because Indian accounting is not so developed and if an index applicable to a developed country is adopted, then there will be a number of non-applicable items. Besides Barrett's index is more comprehensive than Singhvi's (1968) index because Barrett's (1976) index is a combination of Cerf (1961), Singhvi & Desai (1971) and Buzby's (1974) index. All items that would represent appropriate disclosure are included in Barrett's index. No weights were attached to the index.

Marston & Robson (1997) selected a population of 92 companies for the study. The final sample consisted of only 29 pairs of annual reports (for the two periods mentioned above). The researchers consider that it was fairly good response considering the political turmoil at the time of the study.

A bivariate analysis was conducted to test the differences in disclosure in 1982/83 and 1989/90. It was found that disclosures by Indian companies have increased over time and that there is an increase in accounting standard disclosure requirements as well as an increase in the compliance with the existing standards. It was found that larger companies (firm size) disclosed more than smaller companies. It is to be noted in this study that the researchers concluded that disclosures improved because of increased compliance with the accounting standards and not because of voluntary disclosure of information by companies.

A major limitation of this study is the sample size. Marston & Robson (1997) acknowledged in their study that due to the small size of the sample they could not construct a multivariate model.

Apart from Marston & Robson, no other study can be cited that examined disclosure with firm characteristics in India. However, Joshi & Abdulla conducted two studies in (1994 & 1995) on India. Joshi & Abdulla (1994) examined the information requirements of Indian investors within the corporate annual reports and Joshi & Abdulla (1995) examined the accounting environment in India and the major limitations of the standard setting process in India. Both these studies are reviewed below.

The study of Joshi and Abdulla (1995) examined the accounting standard setting process and the practices of corporate financial reporting by 95 large sized companies in their annual reports. In discussing the standard setting process of India, Joshi & Abdulla (1995) indicated that the composition of the members of the Accounting Standard Board (ASB) does not include different categories of users.

Thus, all categories of users are not represented directly in the standard setting process. There is an absence of public hearing in the standard setting process in India, which is considered an important part in the process of setting standards in the rest of the accounting world.

Another important comment made by Joshi & Abdulla (1995) in their study was that Indian accounting standards have many alternative choices, which may be acceptable as per GAAP (generally accepted accounting principles), but financial statements prepared under different accounting alternatives may not be comparable. Besides, the companies are free to change their accounting methods (if circumstances permit) but the accounting standards do not specify the circumstances under which such a change can be made.

Joshi & Abdulla (1995) noted that the preparers of financial statements of India do not come under the direct control of ICAI and the prime responsibility for preparing financial statements lie with the Board of Directors. If agency theory is applied in this situation, it is evident that companies will disclose keeping in mind their best interests and not the interests of the investors. Besides, compliance with the accounting standards does not guarantee presentation of a 'true and fair view'.

As pointed out by Joshi & Abdulla (1995), occasionally there is a lot of pressure on accountants and auditors to accept accounting treatments that are in breach of the standards. Users often do not read the auditors report and thus even if there is a qualification there is a possibility that might have been ignored.

Finally, Joshi & Abdulla (1995) found in their examination of 95 annual reports that a majority of corporate sector companies follow strict legal requirements in the disclosure and preparation of financial statements barring a few multinational and large domestic companies.

Joshi and Abdulla (1994) investigated the information requirements of Indian investors within the annual reports. They categorised Indian investors into two categories, sophisticated (157 respondents) and unsophisticated (55 respondents). A questionnaire was sent to the respondent and they were asked to weight each item of information. While both categories of users had different preferences on information items, some items were considered important by both the user groups. Both user groups considered for instance value-added statements and cash profit per share to be important. It was found that there were significant differences in the information requirements between both groups. Joshi & Abdulla (1994) argued that Indian investors lack confidence in the company management's future forecasts.

Commenting on the abridged form of reporting by Indian companies, Joshi & Abdulla (1994, p. 6) stated that "the abridged for of accounts have been introduced because Indian investors, while making investment decisions, rely heavily on the basis of their own instinct, friendly tips and general market behaviours of share prices in the stock market and rely very little on the information extracted from the annual reports". Joshi & Abdulla (1994) indicated that the abridged form of reporting by Indian companies needs to be reconsidered. High performing companies which once adopted more or less full disclosure policies now have curtailed a range of information they revealed earlier. Companies should be required to prepare more comprehensive reports to more fully respond to the diverse needs of the investors.

The most recent study of Gupta, Saxena and Kaushik (2002) investigated 266 private-sector manufacturing companies to see if the accounting standards issued by ICAI have been followed by these companies. In order to measure compliance with accounting standards a period starting from 1995-96 to 1999-2000 was considered. The researchers also designed a questionnaire (self-structured questionnaire) that they used to measure compliance. The researchers analysed the application of all the mandatory accounting standards in the financial reports of Indian companies.

A chi square test was used for each and every accounting standard application in the annual reports by companies. It was noted that although companies were trying to follow the accounting standards issued by ICAI, due to the lack of legal pressure auditor's awareness about their responsibility towards the regular checking of compliance with the accounting standards, not all companies fulfil all requirements as per the standards.

2.6 Summary

The review of literature indicates that Indian firms have fewer incentives to disclose more than what is required by regulation. However, predictions can be made regarding the situations firms are likely to disclose more. In this regard the costly contracting and capital raising framework can be used. Past studies have successfully used these two frameworks for measuring disclosure. The theoretical framework of this study is developed on the basis of the above mentioned premises. Detailed review of the theories used in this study has been discussed in the next chapter. A summary (Table 2) of the most significant disclosure studies that relate to this study have been given in the next page.

Table2

List of empirical studies examined in the literature review.

Name of the author/s/Year	Country of study	Variables used	Significant variables	Remarks
Marston & Robson, 1997	India	Firm size	Firm Size	Current study on firm characteristics and Indian company disclosure.
Singhvi, 1968	India	Firm size, rate of return, profitability, size of the audit firm, MNC influence and ownership distribution	Firm size, rate of return, MNC influence and number of stockholders	Earliest study on firm characteristics and Indian company disclosure.
Cerf, 1961	USA	Firm Size, ownership distribution, profitability and listing status	Asset size, ownership distribution and listing status	Earliest study in a developed country
Singhvi & Desai, 1971	USA	Firm size, listing status, number of shareholders earnings margin, rate of return and audit firm size,	Firm size, number of shareholders, audit firm size, rate of return and earnings margin.	Study was designed in line with the study of Cerf, 1961.
Buzby, 1975	USA	Size and listing status	Size	The method used by Buzby to weigh each item of information was adopted in several studies.
Imhoff, 1992	USA	Earnings announcement, leverage and firm size	Earnings announcement	A more recent study of US on accounting quality and security price reaction

Table 2 (contd)

List of empirical studies examined in the literature review.

Name of the author/s/Year	Country of study	Variables used	Significant variables	Remarks
Cooke, 1989	Sweden	Listing Status, firm size, annual sales, number of shareholders and parent company relationship.	Listing status and size of the firm	Study on disclosure by companies and firm characteristics on different country.
Cooke, 1992	Japan	Size, listing status, number of shareholders, industry type and parent company relationships	Size, listing status and industry type.	The study is very similar to the one done on Swedish companies
Cooke, 1993	Japan	Size, listing status, number of shareholders, industry type and parent company relationships	Size, listing status and industry type.	Similar study
Inchausti, 1997	Spain	Size, listing status, profitability, leverage, audit firm, industry type and dividend payout	Size, audit firm and listing status	Relatively new study on disclosure practices of Spanish companies
Wallace and Naser, 1995	Hong Kong	Listing status, profit margin, earnings return, liquidity, leverage, size, ownership distribution, market capitalisation, scope of business operations and auditor size	Profit margin, asset size, scope of business and auditor size.	Relatively new study on disclosure practices of Hong Kong companies
Ngruah, 1996	Indonesia	Size, ownership distribution, rate of return, earnings margin	None	None of the variables were found significant in the study.

CHAPTER 3

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.1 Introduction

In the literature review it was identified that Indian companies disclose information in their annual reports mainly because of three reasons. Firstly, they disclose due to the regulations required by law, secondly they disclose when companies want to raise capital from the stock market and thirdly managers or agents disclose information to reduce agency costs. The theoretical framework of this study has been based on the above three premises. For a better understanding of the above three factors, the theoretical framework has been sub-divided into three major sections.

The first section deals with various regulations that guide Indian company disclosures. The second section deals with the disclosure by companies through capital market demand and the third section deals with costly contracting. The costly contracting section deals with the agency-principal relationship in firms that lead to disclosure. A number of variables that have been developed later in the study are based on these three sections.

3.2 Disclosure by regulation

There are several regulations governing corporate reporting and disclosure in India. The foremost regulation is the rules of the Companies Act (1956). In addition, companies listed in a recognised stock exchange in India have to meet the listing requirements of the Securities and Exchange Board of India (SEBI). From 2000 onwards, accounting standards issued by the Institute of Chartered Accountants of India regulate the reporting choices available to managers in presenting the firm's financial statements.

3.2.1 Regulation of financial reporting choices

Accounting standards regulate the reporting choices available to managers in presenting the firm's financial statements. This type of regulation reduces the processing costs for financial statement users by providing a commonly accepted language that managers can use to communicate with the users. However, in such a situation, it is important to note that the objectives of the standard setters should be the same as the objectives of the users. Researchers in the past have argued that regulators tend to be captured by those who regulate. Past research (Joshi & Abdulla, 1994) on Indian standard setting processes provided evidence that ASB (Accounting Standard Board) is not represented by all groups of the users. The likelihood that the objectives of standard setters being different from all categories of users are apparent. It can be deduced that those who regulate accounting in India may have their agendas put first instead of the interest of the common users. Thus, disclosure may not be termed 'aggregate' from the point of view of all users.

Prior to 1999-2000, a number of accounting standards issued by ICAI (although pronounced mandatory by ICAI) were not given a legal status by the Companies Act, 1956. The Companies Act (1956), by section 211 (3C), made the accounting standards of ICAI mandatory from 1999-2000. For the financial year 1999-2000, these accounting standards had the force of law and the time of this study is 1999-2000. It would be useful to observe the effect of firm characteristics in influencing the disclosure by Indian companies immediately prior to the introduction of law.

3.3 Disclosure by capital market demand

Disclosure of information by companies is intended to make valuable contributions to the decision-making processes by investors. Singhvi & Desai (1971) emphasise that complete, accurate and reliable disclosure (adequate disclosure) influence to a great extent the quality of investment decisions made by the investors. Their study provides empirical evidence on the influence of corporate disclosure of information on stock prices.

> In absence of adequate corporate disclosure of information, dispersion in the market price of a security is likely to be wider than it would be otherwise. Consequently some corporations sell their securities at a price, which is higher than the intrinsic value of the security, while others sell for less than the intrinsic value. The cost of capital in the former case therefore, is likely to be lower than in the latter case if the intrinsic value of the security is same for both. This shows that the investment decisions by the investing public affect the price of capital in security markets Singhvi and Desai (1971, p. 136).

In brief, the quality of disclosure is one of the variables that affect the prices of securities and also when corporate disclosure increases the wide variations in market prices of security tends to narrow down. In other words, increased disclosure leads to less fluctuation in market prices because investors can make informed decisions with increased disclosure. "It is also likely that corporations with poor earnings, when required to disclose full and fair information might be weeded out of the securities market because it will be difficult for such corporations to raise capital at a reasonable cost" (Singhvi & Desai, 1971, p. 136).

When a firm tries to raise capital from the stock market in India, it is expected that it will disclose more than the other firms that are not raising capital, because it will try to demonstrate its capabilities of better utilisation of investor resources. Besides in a perfect market, companies will disclose information to remain in the market, because they don't want to be the 'lemons' of the market (Healy & Palepu, 2001). The integrity of the capital market relies on the notion of fairness and trust, and those labelled as 'lemons' have lost the investor confidence by demonstrating their incapability of proper disclosures.

The conflict between the managers and the owners of the company is perennial in nature. The owners always demand more information and the agents disclose what is cost effective for them. The costs that arise due to such conflicts are often termed as agency costs. Agency theory gives rise to the notion of costly contracting that is described in the next section.

3.4 Disclosure by costly contracting

The agency problem arises because investors do not take part in the day to day running of the business and so the responsibility is delegated to the management of the company. Thus, when investors invest their funds in business the management has an incentive to make decisions to expropriate their funds. Healy & Palepu, (2001) explain that when investors acquire an equity stake in a firm, the entrepreneur can use those funds to acquire perquisites, pay excessive compensation, or make investments or operating decisions that are harmful to the interests of outside investors. However, investor's perceptions of a firm are important to corporate managers expecting to issue equity and in such a situation the managers will disclose more to reduce the cost of financing. Such conflicting situations lead to agency problem.

An agency relationship gives rise to agency costs because the agents or managers are expected to act in their own self-interest which may not be consistent with the interests of the owners (principals). The magnitude of the agency costs incurred is related to the amount of the conflict of interest that exists between the agent and the principal. However, one solution to the agency problem is if the agent and the principal enter into a contract to control these conflicts of interests, then it could increase the wealth of both the agent and the principal.

Agency theory can be used to develop a set of testable hypotheses about the information disclosed in the corporate annual reports. Agency theory provides a framework for analysing and predicting accounting policy choices. In the Indian context, agency theory has been successfully used.

The study of Marston & Robson (1997) used agency theory to explain why larger (with large asset size) firms disclose more than others. In this study agency theory has been used to hypothesise that a number of variables can be associated with disclosure by Indian companies. The next section deals with the hypothesis development using agency theory and capital raising approach.

3.5 Hypotheses development

To examine the relationship between the level of aggregate disclosure and firm characteristics, each firm can be identified by eight classificatory characteristics. The eight characteristics in this study are sub-classified into three categories: structure-related, performance related and market-related (Wallace & Naser, 1995). Performance-related variables are time-period specific. In other words, these variables indicate the performance of a company for a specific period or a financial year. Management have preferential access over these informations. Liquidity and profitability are performance-related variables. Indicators like liquidity and profitability are only valid for a specified period of time or a particular year. Structure related variables are those that are likely to remain stable over a period of time. So variables like firm size will not change every financial year but remain unchanged for more that one year or a period of time. Firm size, leverage, ownership diffusion and multinational company influence (MNC) are structure-related variables. Market variables are either time-specific or relatively stable over time and are either within or outside the control of the firm. For instance, audit firm size and capital raising through investors are market-related variables.

3.5.1 Structure-related variables

Structure-related variables can be the possible predictors of the level of aggregate disclosure in Indian corporate annual reports. The two structure-related variables here are firm size and leverage and the theoretical motivation and the hypothesis development are discussed below

Firm size

There are several studies, which have found that a significant association exists between the size of a company and the extent of disclosure levels (aggregate, voluntary and mandatory) in the corporate annual report in both developed and developing countries. Studies of Singhvi, 1968, Singhvi & Desai, 1971, Buzby, 1975, McNally et al, 1982, Chow & Wong Boren, 1987, Cooke 1989, Ahmed & Nicholls, 1994, Hossain et al, 1994, Wallace & Naser, 1995, Raffournier, 1995, Inchausti, 1997, are some of the examples.

Larger companies are hypothesised to disclose more information in their company annual reports than smaller companies for a variety of reasons.

First, larger firms have the funds and expertise for the publication of detailed annual reports. Larger firms usually make many products and they are distributed over large geographical areas and hence they naturally produce large amount of information for internal control. Thus, it is easier for larger firms to publish more information than smaller firms.

Second, large firms are generally exposed to political attacks, such as societal demands for environmental issues (like pollution), for greater regulation such as price controls, higher corporate taxes and a threat of nationalisation. By disclosure, such actions can be minimised.

Third, Singhvi & Desai (1971, p. 131) suggest a smaller firm is more likely to feel, than a larger firm, that greater disclosure would be detrimental to its competitiveness. The reason behind that is small firms does not have the expertise and infrastructure for demonstration to the investors in comparison to larger firms and greater disclosure will mean greater exposure. They fear that greater exposure may make them less valuable in the eyes of the investors.

Firm size can be measured in a variety of ways, for example: total assets, net sales, number of employees, or market capitalisation value of the firm. In this study, the market value of the firm's equity shares is used for measuring size. This measure seems to be more objective because market capitalisation represents an externally determined measure of a firm's importance as seen by the investing public (Wallace & Naser, 1995, p. 322). Market capitalisation for the end of the financial year was taken for the purposes of the study. The hypothesis developed for firm size is as follows:

H1: Larger companies will have higher levels of aggregate disclosure.

Leverage

Among the limited number of Indian studies on disclosure and firm characteristics, leverage was not used by any of the researchers. However, various researchers have studied leverage or debt-equity ratio in the past because it is considered to be an important variable. In other countries, researchers such as Chow & Wong-Boren (1987), Ahmed & Nicholls, (1994), Hossain et al. (1995), Wallace et al. (1994), Wallace & Naser (1995), Inchausti (1997) found no significant association between debt-equity ratio and level of disclosure. Belkaoui & Kahl (1978) found a negative relationship between debt-equity ratio and level of disclosures while Hossain et al. (1994) found no significant association between leverage and disclosure levels. It is important to include this variable because it has never been included in studies on India and it would be interesting to note the effect of leverage in disclosure practices by Indian companies.

It can be argued that companies having more debt in their financial structure will disclose more. Highly geared companies may disclose more information (in special purpose reports) to suit the needs of lenders and thus bear increased monitoring costs in the form of more disclosures. In addition, these companies may disclose more information to restore confidence amongst shareholders that their company is doing well.

In India the Development Financial Institution (DFI) require those companies who wish to borrow money to fulfil a number of requirements. The submission of the annual report is one of them. Companies with high borrowings can expect to be monitored more closely by financial institutions and may be required to furnish information (in special purpose reports and general-purpose reports) more frequently than companies having a smaller amount of debt. Hence, companies with large borrowings may disclose more than companies with a smaller amount of debt. In order to measure leverage, total liabilities over total assets will be considered in this study. The following hypothesis will be used to test leverage. The hypothesis has been developed keeping in mind the requirements of DFI to disclose more.

H2: Companies with higher leverage will have higher levels of aggregate disclosure of financial information.

Ownership distribution

Firms with widely held shares might account for some differences in the level of aggregate disclosures by Indian manufacturing companies. Wallace and Naser (1995, p. 323) argue that if issuing financial statements could solve the monitoring problems associated with the increases in number of shares held by outsiders, then one would expect that financial disclosure would be more comprehensive with the increase in the number of shares held by outsiders.

In countries, where the state (e.g., China), banks (e.g., Germany), or certain families (e.g., Hong Kong) have substantial equity holdings, or, in other words, have highly concentrated equity ownerships, there is no separation of ownership from control. In such cases, owners have greater access to information and may not have additional or higher levels of disclosure for protecting their investments (Owusu-Ansah, 1998). However, for India, due to the nature of the sample (all listed companies), separation of ownership from control is expected to be found.

Ownership diffusion was found to be significantly associated with mandatory disclosure levels in the study of Owusu-Ansah (1998). It was found as an insignificant variable in several others studies for example; Hossain et al. (1994) and Raffournier, (1995). Singhvi & Desai (1968) used ownership distribution as one of their variables. However, they found no significant association between ownership distribution and disclosure levels of Indian companies. The hypothesis developed for ownership distribution is as below.

H3: There is no association between levels of aggregate disclosures and firms with widely or closely held shares.

Multinational company (MNC) affiliation

The subsidiaries in developing countries of parent multinational companies from developed countries or companies with the presence or participation of a foreign management are likely to disclose more information than their local counterparts for several reasons.

Firstly, the parent multinational of these subsidiaries is usually from developed countries, where the standards of reporting are higher than in developing countries. These subsidiaries can be expected to generate more information to comply with more stringent internal accounting standards of their parent multinational and at the same time meet the requirements of the country in which they operate (Ahmed & Nicholls, 1994).

Secondly, it has been argued that the political costs for these subsidiaries may be higher in developing countries than in developed countries because they are more prone to scrutiny. This is because the subsidiaries are international firms with different methods of financial reporting. In addition, subsidiaries of multinational companies in developing countries may have a significant contribution in the economies of their host countries.

So the companies may risk the threat of government control, even the threat including nationalisation if they disclose less in comparison to other domestic firms.

Wallace (1988) and Ahmed & Nicholls (1994) found that there was a significant positive association between the multinational status of the companies and the level of disclosure. The following hypothesis is proposed for MNC affiliation of Indian companies:

H4: Firms with multinational affiliations will have higher levels of aggregate disclosures than domestic firms.

3.5.2 Performance-related variables

The performance related variables in this study are profitability and liquidity. The relationship between each of these characteristics and the aggregate level of disclosure is theorised and hypothesised below.

Profitability

Profitability was used by a number of researchers as an explanatory variable for testing the differences in disclosure levels. Researchers like Singhvi & Desai (1971), Wallace et al. (1994), Wallace & Naser (1995), Raffournier (1995) and Inchausti (1997), have found profitability to be significantly associated with disclosure levels.

Companies having higher profitability may disclose more information in their corporate annual reports than companies with lower profitability for a number of reasons.

If the profitability of a company is high, management may disclose more detailed information in the form of good news. If profitability is low management may disclose less information in order to cover up losses or reasons for lower profits.

In other words, for profitable companies if the rate of return or return on investment is more than the industry average, the management of the company has an incentive to communicate more information which is favourable to it as the basis of a explanation of good news. However, in a contradicting argument it can be said that companies with high profitability may disclose less due to increased political costs and competitive pressure (to reduce signals to potential entrants).

In this study net profit to sales is used to measure profitability. Singhvi & Desai (1971) used this measure of profitability. The following hypothesis has been used to test whether profitability has a significant impact on the disclosure by companies.

H5: Companies with high profitability will have higher levels of aggregate disclosure of financial information.

Liquidity

The ability of the firm to meet its short term liabilities without having to liquidate its long term assets or cease operations is an important factor in the evaluation of the firm by interested parties such as investors, lenders and regulatory authorities (Wallace & Naser, 1995). The inability to pay off short-term liabilities means that the firm may be unable to pay its principal amounts on loans and hence it is detrimental to the lenders. Sometimes such a situation may lead to bankruptcy.

To reduce the speculation of investors and lenders, firms tend to disclose more information about their ability to meet short-term obligations, so that the firm remains a going concern. Belkaoui & Kahl (1978, p. 44) suggest that firms with high liquidity ratios will have higher levels of disclosures.

Although various authors have examined liquidity in the recent years (Wallace & Naser 1995, Owusu-Ansah 1998), a significant relationship between liquidity and levels of disclosures has not been found. Only the study of Wallace et al. (1994) suggests a positive relationship between liquidity and the level of disclosure. In the Indian context however, it is a new variable that has never been examined before.

The measurement of liquidity is best done as a ratio of current asset less stock to current liabilities. This is also called the quick ratio or the acid test ratio. The hypothesis tested for liquidity is developed below. Due to the inconsistency in results in the past the null hypothesis has been stated below.

H6: There is no association with higher levels of aggregate disclosure and firms with higher liquidity ratios or firms with lesser liquidity ratio.

3.5.3 Market-related variables

Market-related characteristics incorporated into our study are size of the audit firm, and capital increase.

Size of the audit firm

Several studies have empirically examined the relation between the characteristics of audit firm [size of the audit firm (based on the number of clients) or the international link of the auditing firm)] and the extent of disclosure. Some examples are the studies of Singhvi (1968), Singhvi & Desai (1971), Ahmed & Nicholls (1994), McNally et al. (1982), Hossain et al. (1994), Wallace & Naser (1995), Raffournier (1995) and Inchausti (1997). These researchers found positive association between the audit firm size and level of disclosure. However, there is also evidence that shows no significant relationship between size of the audit firm and level of disclosure (Wallace, Naser & Mora, 1994).

It is hypothesised in this study that the companies audited by large audit firms (audit firms with international link and large domestics firms without international links) will have higher levels of aggregate disclosure. It can be assumed that firms that are audited by large audit firms may disclose more due to the fear of qualification of the audit report. If clients prepare financial reports in which disclosure is inadequate or erroneous, larger audit firms may be more likely to report adversely on the position of the company (Ahmed & Nicholls, 1994). However it is often found that auditors come under the pressure of accountants and accept liberal accounting policies.

Such a situation generally arises where the audit firm is small and has a fear of losing the client. Larger firms are more concerned with their reputation and they generally compel companies to disclose more. Although, the primary responsibility for preparing the annual report rests with the company, the company's auditors may exercise some influence or provide advice regarding the levels of disclosure. The following specific hypothesis has been tested regarding the audit firm size.

H7: Firms that engage one of the big 5 audit firms will have higher levels of aggregate financial disclosure.

Increase in capital

A firm raises capital by further equity issues or increases its long-term debt. A firm may also issue capital when in distress and needs money to run its operations. Hence when a firm tries to raise capital, users such as investors, lenders, regulators will try to find out the reason behind further issue of equity capital or increase in debt. In order to justify their actions firms will disclose more information than previous years when they did not raise capital. Besides, in order to raise capital firms disclose more information because they will have to comply with regulations apart from establishing confidence amongst investors. Also, non-disclosure may generate a market perception of a wrong-doing by the firm, and firms do not want to be "lemons" in the market. Thus, they will disclose more. The hypothesis to be tested for capital increase is as follows:

H8: Firms that have raised equity capital in the year 1999-2000 will have higher levels of aggregate financial disclosure.

3.6 Summary

Several hypotheses were developed in this section. Firm size, leverage, MNC affiliation, size of the audit firm and capital increases are expected to have a positive association with aggregate levels of disclosure by Indian companies.

Ownership diffusion, liquidity and profitability are expected to have no effect on disclosure by Indian companies. In order to test these hypotheses a research method is to be developed. The following chapter deals with the research method of the study.

CHAPTER 4

RESEARCH METHOD

4.1 Introduction

The purpose of the study is to examine the firm characteristics of Indian listed companies associated with aggregate disclosure practices. It is hypothesised that firm size, size of the audit firm, MNC influence, leverage and capital raising will be associated with aggregate disclosure practices of Indian listed companies, while liquidity, ownership diffusion and profitability will have no impact on disclosure by Indian companies. The methods used to test the hypothesis, which includes constructing the disclosure index, scoring procedures and selecting of sample of firms, are discussed in the next section.

4.2 Measuring the extent of aggregate disclosure in company annual reports

Wallace and Naser (1995, p. 328) noted that there is no general theory on the items to select for investigating the extent of disclosure. Different index systems are used to measure level of disclosure in corporate annual report of companies by researchers. These include unweighted index (Singhvi & Desai, 1971, Cooke 1989), and weighted index (Buzby, 1975, Chow & Wong- Boren, 1987). The content and the number of items in a disclosure index vary from one research study to another and the choice of items depends on the focus of the research. One of the intentions of this study is to measure the aggregate level of disclosure in the corporate annual reports of Indian companies. By the term 'aggregate disclosure' it means all those disclosures required by the regulatory sources in India as well as any other discretionary disclosure made by companies. In this study both an unweighted index and a weighted index have been used. The benefits of a weighted index are that it identifies items that possess greater usefulness and that it recognizes relative importance of the items.

As Marston & Shrives (1991) suggest, it is advisable to use weighted as well as unweighted index to see the effect of weighting on the ranking of the companies. The following section outlines the nature of index used to measure disclosure.

A search of the literature on indexes revealed that the trend is to increase the number of items in a disclosure index. However, Marston & Robson (1997, p. 125) noted that there is no empirical evidence to suggest that an index with many items is superior to an index with fewer items in detecting levels of disclosure. Marston & Robson (1997, p. 125) argued in their study that, "Barrett's (1976) index was chosen in view of the fact that Indian financial reporting is relatively unsophisticated and use of a more recently developed index with many disclosure items would doubtless have resulted in many zero scores." Barrett (1976) had an index with only 17 items. It was decided to select Barrett's index for this study as Indian financial reporting is generally acknowledged by some commentators to be lagging behind the developed countries. Hence, it can be argued that this index can usefully be applied to Indian financial reports. Another reason to use Barrett's index was to keep the number of items in the index under control. For example Singhvi's (1968) index contained a large number of items but all items could be categorised into broad headings, whereas Barrett's (1976) index contained only broad headings making the index more precise. The index was examined to see whether the items of information were appropriate for the current study.

4.3 Rating the importance of aggregate disclosure items

Joshi & Abdulla (1994) state that financial analysts can be categorised as sophisticated user group because of their ability to interpret information from the annual reports. The opinions of financial analysts are useful for measuring the importance of disclosure items. Opinions of financial analysts are used to rate the importance of each item in the index.

Taking all types of users into consideration is inappropriate for this study because both weighted and unweighted index is considered in the study. If several user groups were considered then a weighted index would be impracticable to use because different users groups have preferences for different types of information. A questionnaire was mailed to the financial analysts. The questionnaire consisted of the items of the disclosure index. The financial analysts were asked to assign weights to the items according to their perceptions.

Following Buzby's (1975) method, the questionnaire required the receiver to rate each items from a scale of 0 to 4, where 0 meant that the item is not important in the context of disclosure in corporate annual report and 4 meant that the item was an essential element of the annual report from the point of view of the financial analysts. The weight for a particular item is obtained by summing the integer values assigned to the item and then dividing that total by the number of individuals who responded to the item. A mean was used to summarise the response scores because it gave equal weight to each of the responses.

Similar to Buzby (1975) a rating worksheet is developed in order to measure the extent of disclosure of the 19 items of information (17 from Barrett's index and two items[8] that were thought to be important from the perspective of the current study) in the sample of 55 annual reports (sample details are given in the next section) (Appendix A). Barrett's index was adopted because Indian accounting is not complicated and use of a number of items would lead to zero scores for many items. Two extra items that were adopted were thought to be of importance in the context of the current study. One worksheet is filled out for each annual report in the sample. The worksheet consisted of a listing of the items of information. It contained two columns. One column recorded weighted score and the other recorded unweighted score. The weighted and the unweighted index has been discussed separately below.

[8] The two additional items that were thought to be significant for the study were number of shareholders and MNC influence.

4.3.1 Weighted index

Items in the index are 'self contained' that means that their values are either given or not given in the annual reports. It is not assumed that all items are applicable to all companies. If their values are not given in the annual report, they are recorded as '0' in the weighted index. For example, the number of stockholders are either given in the annual reports or not given. If their values are given then the mean value of stockholders (as described earlier) in the weighted index. Then the total weights are added up. Then the weighted column is divided by the number of items applicable to the particular company and multiplied by the maximum score (i.e. 4). Thus the scores of each company is calculated and recorded in the main worksheet consisting of all companies.

4.3.2 Unweighted index

If the values of the items are not given in the annual report, they are recorded as '0' in unweighted index. In the example given above if the number of stockholders are given in the annual reports then they are recorded as '1' in the unweighted index. The unweighted column is added up. The unweighted column is divided by the number of items applicable (i.e. 19). The scores are then recorded in the main worksheet. The main worksheet comprised of each item of information with values either given in the annual report or the presence or absence is recorded as 1 or 0 respectively.

Both the indexes are analysed separately. The unweighted index is examined to see whether the weighted disclosure index could provide any significant deviation from the unweighted disclosure index in examining the relationship between the extent of disclosure and various corporate attributes.

4.4 Sample selection

The sample selection section is divided into two sub sections. The first sub section deals with the annual report selection and the next section deals with the questionnaire survey.

4.4.1 Annual Report Selection

The year for which the annual reports were selected is 1999-2000. There are a number of reasons for selecting the financial year 1999-2000. Firstly, the key reason is that the year 1999-2000 is a very important financial year. This is because, Companies (Amendment) Act, 1999 amended Section 211 of the original Companies Act (1956). After the amendment, Section 211 (3A) specifies that every profit and loss account and balance sheet shall comply with the accounting standards issued by ICAI. Therefore ICAI's accounting standards have become a part of the requirements of the Companies Act, 1956 for companies lodging financial statements on or after 1.4.1999. Joshi & Abdulla (1995) indicated that the accounting standards issued by ICAI do not enjoy the enforcement by law and the stock exchange authorities when compared to other countries. However, these accounting standards have become mandatory under section 211 (3C) of the Companies Act. Lastly, at the time of the study this was the most current period.

The first step in the sample selection was to select the top 150 non-financial manufacturing and trading companies (on the basis of their market capitalisation) listed on the Mumbai stock exchange. Barrett (1976, p. 11) noted that there are three reasons why market capitalisation is the primary determinant of which firms would be included in the sample. First, it is an easily obtainable figure, which, unlike some other potential determinants, is available for all publicly held firms. Second, it represents a relatively unbiased measure of the firm's importance as seen by the investing public. Finally, the criterion resulted in a sample of firms in which current and potential equity investors were most likely to be interested.

The sample of top 150 companies was selected from the top 500 companies listed in the "Official Stock Exchange Directory" of the Mumbai stock exchange. The reason behind selecting the top 150 firms is that they are more of interest to the investors. They will be likely to have the maximum amount of disclosure because they are large so they will be more in the public eye and will have the resources to publish more information.

The reason behind selecting Mumbai Stock Exchange (previously called Bombay Stock Exchange) is that it is the largest stock exchange in India, trading with over 6,000 companies. However, there are other stock exchanges in India also, for example, the National Stock Exchange.

The rationale for using manufacturing and trading companies is to maintain uniformity in the sample. Financial companies have different methods of accounting while retailing firms will be difficult to compare with manufacturing and trading firms. So trading and manufacturing companies were selected.

The 1999-2000 annual reports were used as data sources for the purposes of the study. All annual reports were written in English. No abridged annual reports were included in the study. The companies selected were requested by letter to supply their annual report for 1999-2000. In addition, The Registrars of Companies of Mumbai and Kolkatta were requested to supply copies of the annual report of 1999-2000. The response rate was very poor from both the sources mentioned above hence other agencies like the Indian Chamber of Commerce and audit firms like M/S A.F. Ferguson were approached, to supply with the annual reports of their clients that formed part of the sample. Annual reports from 55 companies were received making a 37 % response rate. Table 3 shows break up of the final sample:

Table 3

Sample of Annual Reports

Total sample Size	Number of annual reports
Annual reports obtained by post	43
Annual reports obtained by other sources	18
Total annual reports received	61
Unusable annual reports (abridged)	6
Final Response rate	55
Total sample Size	150
Response Rate	37%

The reason behind the poor response rate is the Indian economic and cultural environment. The Mumbai stock market had experienced a major crash in 2000 and thus companies seemed hesitant to give out annual reports. This does not necessarily mean that companies that did not give out the annual reports had different levels of disclosure. Besides most of companies publish large number of abridged annual reports for distribution to users. Although complete annual reports must be published as per the Companies Act, 1956, most companies seemed to have limited number of complete annual reports and were not interested in giving them out.[9]

4.4.2 Questionnaire survey

The second step in the sample selection involved a questionnaire survey. Financial analysts were surveyed to determine their weights of importance of financial disclosure items. A questionnaire was surveyed amongst financial analysts of India. The Institute of Chartered Financial Analysts of India (IFAC) was established in 1989.

[9] It is recognised that this sample selection procedure may bias the sample towards those companies with higher disclosures.

There are few qualified analysts in India. However there are a large number of financial analysts (who do not hold a formal degree of IFAC), but are qualified Chartered Accountants and work as financial analysts independently. Also financial analysts working in Credit Rating Society of India were included in the list.
Since no uniform population could be determined due to lack of information a total of 25 financial analysts were selected from all the sources on a random basis. It was ensured that the selection of financial analysts was well distributed. For instance, some those work as stockbrokers and others who work, as analysts of a reputable organisation were included in the survey. The financial analysts were e-mailed with the questionnaires. Seven useable replies were received making it a 25 % response rate. Most of the financial analysts responded after repeated requests via e-mail. Table 4 shows the break up of response of the number of financial analysts.

Table 4

Sample of Financial Analysts

Total number of financial analysts mailed	Number of analysts
Responses from members of IFAC	0
Responses from other sources	7
Total responses received	7
Final sample	7
Total Analysts contacted	25
Response Rate	25%

4.5 Independent variables

The model of the study comprises of some independent and dependent variables. It is hypothesized that firm size, leverage, MNC affiliation, size of the audit firm and increase in capital will be associated with higher levels of aggregate disclosure by Indian companies, while ownership diffusion, profitability and liquidity will have no association with aggregate levels of disclosure.

The independent variables are classified into structure related, market related and performance related variables and they are described in brief below.

4.5.1 Structure-related Variables

Firm size

Firm size can be measured in a variety of ways, for example total assets, net sales, number of employees (structure-related characteristics) or market capitalisation value of the firm (market-related characteristic). In this study, the market value of the firm's equity share is considered for measuring size (Cooke 1992, Owusu-Ansah, 1998, Wallace & Naser, 1995). This measure is more objective because market capitalisation represents an externally determined measure of a firm's importance as seen by the investing public (Wallace & Naser, 1995, p. 322). Barrett (1976, p. 11), indicated the reasons why market capitalisation can be used are firstly, it is an easily obtainable figure, which unlike some other potential determinants, are available for all publicly held firms. Secondly, it represents a relatively unbiased measure of firm's importance as seen by the investing public. Thus, market capitalisation was thought to be the most appropriate measure for firm size in this study.

Leverage

Debt–equity ratio can be measured in a variety of ways. For instance, book value of debt to shareholder's equity or book value of debt to total assets (Chow & Wong-Boren, 1987, Wallace, Naser & Mora, 1994). In this study leverage is measured by total liabilities over total assets.

Ownership Diffusion

As ownership diffusion is a measure of how widely the shares of the firms are held. It is measured by the number of shareholders other than the top 20 shareholders of the firm that is companies with widely held shares as compared to companies with closely held shares (Owusu-Ansah 1998, Raffournier 1995, Wallace & Naser 1995). Researchers in the past have acknowledged that the number of shareholders is also another proxy for firm size. For corporations with large number of shareholders tend to be more in the public eye and therefore more under the pressure of regulatory bodies and other users of financial statements (like financial analysts, investors, and creditors) for improved aggregate levels of disclosure. Due to the multicollinearity problem between firm size and ownership distribution the measure of firm size has been taken as market capitalisation and measure of ownership distribution has been taken as number of stockholders in the firm other than the top 20 shareholders. In this study ownership distribution is measured by the number of shareholders other than the top 20 shareholders of the firm that is companies with widely held shares as compared to companies with closely held shares (Owusu-Ansah 1998, Raffournier 1995, Wallace & Naser 1995). Due to instances from the studies of Singhvi & Desai (1971) and Hossain et al. (1994) it is expected that no relationship between ownership diffusion would be found

Multinational Company (MNC) Affiliation

In order to determine that firms had multinational influence, each annual report was examined to determine whether they were subsidiaries of multinational parents or they had participation of foreign management (whether the Board of directors consisted of foreign nationals).

4.5.2 Performance-related variables

Profitability

Researchers have used a number of profit related measures in their studies, such as net profit to sales, earnings growth, dividend growth and dividend stability, rate of return and earnings margin. In this study net profit to sales have been used to measure profitability.

Liquidity

Wallace & Naser (1995), and Owusu-Ansah (1998), and other authors examined liquidity in their study. Their measurement of liquidity was a ratio of current asset less stock to current liabilities. This ratio of liquidity is also called an acid-test ratio or quick ratio. This ratio has been used in the study.

4.5.3 Market-Related Variables

Size of the audit firm

At the time of the study there were 5 major audit firms (M/S A. F, Ferguson & Co., Lovelock Lewis, Price Waterhouse, Batliboy and Arthur Anderson). These firms have major multinational and national companies as their clients and are regarded as large firms in the Indian market. Some of the firms have affiliations with large Indian audit firms. In this study firms are considered to have been audited by large firms if they are audited by one of them. This measure is consistent with other studies like (Ahmed & Nicholls, 1994, Wallace et al, 1994, Singhvi & Desai, 1971).

Increase in capital

The capital structure for all the sample firms was examined for the year 1999-2000 and 1998-1999. Both these balances for capital were available from 1999-2000 annual reports. If the equity capital increased during the year of study then the firm was given a score of 1 and otherwise it was given a score of 0.

4.6 Summary

This chapter dealt with the research methodology. It included the sample selection process, the definitions of the dependent and independent variable, the data sources used and the various aspects of the research design of the study. In the following chapter, the results of the data analysis are reported.

CHAPTER 5

EMPIRICAL RESULTS

5.1 Introduction

Previous studies on Indian companies conducted bivariate and univariate analyses on the sample data. However following the trend of Marston and Robson (1997) and other disclosure studies, two multivariate models are developed for this study. As mentioned in chapter 2, multivariate models are better than bivariate and univariate models when more than one independent variable is involved in the analysis. Descriptive statistics are also conducted in the study. All relevant data needed from the Indian company reports and responses from the financial analysts were successfully collected. The statistical analyses were performed using the statistical software package "SPSS" (11.0 version). The results of these analyses will ascertain whether the hypotheses set out could be accepted or rejected. Prior to descriptive statistics and the development of the multivariate models, the procedure for weighting the aggregate disclosure items is given below.

5.2 Rating the importance of aggregate disclosure items

In the financial analysts' questionnaire survey the weights that were assigned to all the items of disclosure were added up. The weight for a particular item was obtained by summing the integer values assigned to the item and then dividing that total by the number of individuals who responded to the item. A mean for each item was used to summarise the response scores because it gave equal weight to each of the responses for a particular item. The sum of all 19 weights equalled 62.75. There were all positive responses in the questionnaire. Table 5 shows the items of information and the mean scores allocated to each item.

Table 5

Weighted Mean scores of the aggregate disclosure items

Items of Information	Weighted Mean scores	Maximum score	Minimum Score
1. Financial history	3.75	4	3
2. Segment reporting: Product line	3.0	4	1
3. Segment reporting: Geographical area	2.25	3	1
4. Capital expenditure: Current	3.5	4	2
5. Capital expenditure: Planned	3.5	4	3
6. Depreciation method	3.75	4	3
7.Cash flow statement	3.75	4	3
8. Retained earnings	3.75	4	3
9. Fixed asset composition	3.0	4	2
10. Inventory composition	3.25	4	2
11. Price-level adjusted statement	2.0	3	1
12. Market value of marketable securities	3.5	4	3
13. Currency translation method	3.0	4	1
14. Depreciation life	3.5	4	2
15. Foreign exchange gains	3.5	4	3
16. Sales and gross margin	3.75	4	3
17. Income tax disclosure	3.5	4	3
18. Number of stockholders	2.75	3	2
19. Type of management	3.75	4	3
Total	62.75		

The weighted mean scores are the averages of all the scores given by 7 financial analysts. The maximum scores and the minimum scores indicate the maximum and minimum possible weight obtained for each item in the index. The total weight indicates the sum of all weighted mean scores.

5.3 Descriptive statistics

The descriptive statistics for the sample of 57 Indian companies is provided in Table 6. The variables described in column 1 of Table 6 are firm size (SIZE); liquidity (DEBT); ownership diffusion (OUTSH); profitability (PROF); liquidity (LIQR); multinational company affiliation (MNC); size of the audit firm (AUD) and capital increase. The two other dependent variables are unweighted disclosure (DISC) and weighted disclosure (WDISC). Data in columns 2 and 3 are the mean and standard deviations of the variables. The maximum and minimum scores and of the variables are given in columns 4 and 5.

Table 6

Descriptive Statistics (N = 57)

Variable (1)	Mean (2)	Standard Deviation (3)	Maximum (4)	Minimum (5)
DISC	0.78	0.11	1.00	0.50
WDISC	0.67	0.092	0.84	0.43
SIZE (Rs. 000,000)*	5,691	10,719	49513.0	3.75
LOGSIZE	6.960	2.39	10.81	1.32
DEBT	3.90	6.55	34.37	0
OUTSH	34.20	37.23	97.17	0
PROF	-1.31	14.13	-103.61	17.34
LIQR	1.88	2.27	12	0.06
	Frequency (1)	%	Frequency (0)	%
MNC	20	35	37	65
AUD	24	42	33	58
CAPR	17	30	40	70

* The figures are in millions of rupees.

- With the exception of LOGSIZE all continuous variables were normally distributed.

The mean disclosure score for the unweighted disclosure index is 0.78, which means the average disclosure score is 78 % of the total items in the disclosure index. The result can be compared with that of Marston and Robson (1997) whose mean disclosure score was found to be between 59%-69% for two periods. The mean disclosure score for weighted disclosure index is 0.67, which means the average disclosure score is 67% of the total items in the disclosure index.

The sample also includes 35% of companies with a multinational affiliation, 30% of companies that raised capital in 1999-2000 and 42% of companies audited by a Big 5 audit firm.

Tables 7 and 8 indicate the disclosure frequency for the weighted and unweighted index respectively. The minimum score in the unweighted index was 0.50 and the maximum score was 1, and the results in Table 6 indicated that most companies had a disclosure score between 0.70 and 0.90. Table 7 indicates the maximum (0.84) and the minimum (0.43) score of the unweighted index. In this case however it was found that maximum companies had a disclosure score between 0.43 and 0.70.

Table 7

Disclosure Frequency (unweighted index)

Score	Frequency	Cumulative Percentage
0.50-0.70	11	19.3
0.71-0.90	39	91.2
0.91-1.0	5	100

Table 8

Disclosure Frequency (weighted index)

Score	Frequency	Cumulative Percentage
0.43-0.70	38	66.7
0.71-0.84	19	100

To examine the correlation between the dependent and independent variables, Pearson's correlation coefficients ® were computed in Tables 9 and 10. Table 9 indicates the Pearson's correlation matrix of unweighted disclosure index and firm characteristics. Prior studies on disclosure have used Pearson's Correlation (Ahmed & Nicholls, 1994, Inchausti. 1997, Wallace & Naser, 1995).

Table 9

Association of unweighted disclosures with firm characteristics (Pearson's Correlation Matrix)

	DISC	SIZE	DEBT	OUTSH	MNC	PROF	LIQR	AUD
SIZE	0.176	1						
DEBT	-0.188	0.006	1					
OUTSH	0.355*	-0.207	-0.020	1				
MNC	0.072	0.205	-0.278*	0.128	1			
PROF	0.355**	0.067	0.009	0.145	0.118	1		
LIQR	-0.109	-0.139	-0.075	-0.103	-0.158	0.124	1	
AUD	0.030	0.227	-0.224	-0.099	0.490*	0.083	-0.297	1
CAPR	0.256	0.109	0.080	0.056	-0.078	0.118	0.121	-0.168

** Correlation is significant at the 0.01 level (2 tailed).

* Correlation is significant at the 0.05 level (2 tailed).

The results of Table 9 indicate that there is a significant correlation between outside shareholders and profitability with the level of disclosure. In other words, the coefficient of correlation between the unweighted disclosure index and number of shareholders other than the top 20 shareholders and also the ratio of net profit to sales is higher than any other variables.

Significant correlations between independent variables constitute a potential problem for the use of multiple regression analysis. The correlation matrix identifies a significant negative correlation between multinational affiliation and debt and a positive correlation between multinational association and Big 5 auditor. There is also a significant negative correlation between Big 5 auditor and the liquidity ratio. However, these correlations are below the suggested limits (0.9 and above) and should not cause a problem with multicollinearity in regression analysis (Hair, Anderson, Tatham, and Black, 1984).

To see if there is any association between weighted disclosure index and the firm specific characteristics in the study another correlation matrix was develope_. The results are indicated in Table 10.

Table 10

Association of weighted disclosures with firm characteristics (Pearson's Correlation Matrix)

	WDISC	SIZE	DEBT	OUTSH	MNC	PROF	LIQR	AUD
SIZE	0.170	1						
DEBT	-0.210	0.006	1					
OUTSH	0.302*	-0.207	-0.020	1				
MNC	0.092	0.205	-0.278*	0.128	1			
PROF	0.356**	0.067	0.009	0.145	0.118	1		
LIQR	-0.110	-0.139	-0.075	-0.103	-0.158	0.124	1	
AUD	0.072	0.227	-0.224	-0.099	0.490*	0.083	-0.297	1
CAPR	0.256	0.109	0.080	0.056	-0.078	0.118	0.121	-0.168

** Correlation is significant at the 0.01 level (2 tailed).

* Correlation is significant at the 0.05 level (2 tailed).

The results of Table 10 are similar to that of Table 9. There is a significant correlation between outside shareholders and profitability with the level of disclosure. A negative relationship is observed between multinational affiliation and debt and a positive correlation between multinational affiliation and Big 5 auditor.

5.4 Multivariate models

Multiple linear regression techniques are used to test two alternative versions for each hypothesis. The two multivariate models (one using unweighted index and other using weighted index) used to examine the association between firm specific characteristics and financial disclosure are given below.

5.4.1 Model 1

DISC =f (SIZE + DEBT+OUTSH+MNC+PROF+LIQR+AUD+CAPR) + Є

Where:

DISC = Unweighted disclosure index

SIZE = Market capitalisation of the company

DEBT= Debt to equity ratio

OUTSH = Number of shareholders other than the top 20 shareholders

MNC = Multinational company influence (1, 0)

PROF = Net profit to sales ratio

LIQR = Ratio of current assets less inventory to current liabilities

AUD = Big 5 audit firm

CAPR = Raised capital in 1999/2000 (1, 0)

ϵ = Error Term

5.4.2 Model 2

WDISC =f (SIZE + DEBT+OUTSH+MNC+PROF+LIQR+AUD+CAPR) + ϵ

Where:

WDISC = Weighted disclosure index

SIZE = Market capitalisation of the company

DEBT= Debt to equity ratio

OUTSH = Number of shareholders other than the top 20 shareholders

MNC = Multinational company influence (1, 0)

PROF = Net profit to sales ratio

LIQR = Ratio of current assets less inventory to current liabilities

AUD = Big 5 audit firm

CAPR = Raised capital in 1999/2000 (1, 0)

ϵ = Error Term

5.5 Multivariate Analysis

5.5.1 Unweighted Index

In order to analyse the manner, in which the firm specific variables were associated with the unweighted disclosure index, an ordinary least square regression equation based on Model 1 was estimated. Following Marston & Robson (1997), prior to the estimation, the size variable was transformed (logarithm) because it is expected that there will be a non-linear association between firm size and level of disclosure. As mentioned earlier, the multicollinearity problem has been eliminated because of the measures adopted for firm size and ownership The regression results are set out in Table 11:

Table 11

Association between unweighted disclosure index and firm characteristics (ordinary least square regression).

Variable	Predicted sign	Coefficient	*t*	Probability
INTERCEPT			12.997	0.000
LNSIZE	+	0.294	2.228	0.031*
DEBT	?	0.173	1.430	0.159**
OUTSH	+	0.220	1.800	0.078*
MNC	+	-0.41	-0.296	0.768*
PROF	+	0.242	1.927	0.060*
LIQR	?	-0.115	-0.923	0.361**
AUD	+	0.023	0.163	0.871*
CAPR	+	0.192	1.573	0.122*
N			57	
F			3.486	
Pr>F			0.001	
Adjusted R^2			0.262	

* One tailed test

** Two tailed test

The above regression model (Model 1) was able to explain 26 % of the variation in disclosure scores. Company size was found to be a significant variable. However, when the size variable was analysed independently, R square was 0.2 % indicating 20% variation in disclosure. This result can be compared with Marston & Robson (1997) [10]who found 30% variation in disclosure scores. All other variables that are marginally significant include outside shareholders (p = 0.07) and profitability (p = 0.060). Leverage, size of the audit firm, capital increase, MNC influence not found to be significantly associated with disclosure. As predicted liquidity had no association with disclosure.

5.5.2 Weighted Index

To examine the firm specific variables were associated with the weighted disclosure index, an ordinary least square regression equation based on Model 2 was estimated. Here also, prior to the estimation the size variable was transformed because it is expected that there will be a non-linear association between firm size and level of disclosure. The regression results are set out in Table 12.

[10] Marston & Robson (1997) only considered firm size as an independent variable.

Table 12

Association between weighted disclosure index and firm characteristics (ordinary least square regression).

Variable	Predicted sign	Coefficient	t	Probability
INTERCEPT			13.014	0.000
LNSIZE	+	0.284	2.134	0.038*
DEBT	?	0.177	1.454	0.152**
OUTSH	+	0.192	1.557	0.126*
MNC	+	-0.032	-0.229	0.820*
PROF	+	0.244	1.921	0.061*
LIQR	?	-0.109	-0.863	0.393**
AUD	+	0.065	0.447	0.657*
CAPR	+	0.205	1.658	0.104*
N			57	
F			3.290	
Pr>F			0.001	
Adjusted R^2			0.246	

* One tailed test

** Two tailed test

***See Footnote[11]

The above regression model (Model 2) was able to explain 24 % of the variation in disclosure scores. Company size is a significant variable (p = 0.038). Profitability (p = 0.061) and capital increase (p = 0.104) are also found to be marginally significant.

[11] Descriptive data indicated that debt and profitability could be influenced by some extreme values. Regression tests were run without these outliers. Results were consistent with those reported in tables 10 & 11.

The results of the weighted index can be compared to the study of Singhvi (1968). He found size, and ownership diffusion to be significantly associated with disclosure. Similar results are found in this study. Singhvi's (1968) study did not find profitability to be significantly associated with disclosure whereas this study found profitability to be associated with disclosure. Both studies found that audit firm size is not associated with disclosure.

5.6 Conclusion

This study has analysed the results of multiple regression to test the association between company characteristics and extent of disclosure in Indian company annual reports. The extent of disclosure was measured using both weighted and unweighted indexes. The regression results indicated that disclosure is positively associated with firm size, ownership diffusion, profitability and capital increase (marginal). Ownership diffusion, which was hypothesised to have no relationship with disclosure, was found to have positive relationship with disclosure. This maybe due to the reason that the Indian investors are becoming more conscious and thus putting pressure on companies to disclose more. In this study it was expected that the use of weights would improve the explanatory power of the models. However, no major differences were noted between the results from weighted and unweighted disclosure index. Both Model 1 and Model 2 have indicated similar results. It can be concluded that two companies disclosing 19 different types of information would have the same levels of disclosure under the weighted and unweighted model. It is to be noted here that both weighted and unweighted models produce similar results in terms of the significant and insignificant variables.

The theoretical framework of the study was based on agency theory and capital raising theory. It was expected that managers of the firms will disclose information to reduce agency costs and also while they raise capital. Since the results indicated firm size, ownership diffusion and profitability are significant, it can be said that the theories have been confirmed. Firm with large market capitalisation, firms with large number of shareholders, large net profit to sales ratio and firms that try to raise capital will influence disclosure more than others.

It was found while examining the annual reports for disclosure items that all accounting standards applicable to the companies were applied. Thus, it can be said that regulation of the accounting standards issued by ICAI had increased the level of disclosure. However the extent of increase in disclosure was not in the scope of the study.

CHAPTER 6

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

6.1 Introduction

The objective of the study was to examine the firm characteristics associated with disclosure practices of Indian companies. It is hypothesised that firm size, audit firm size, leverage, capital increase and MNC influence will be positively associated with disclosure while ownership diffusion, liquidity and profitability will have no effect on disclosure. Whilst trying to achieve the objectives of the study every effort has bee- ·ken to ensure that this is a thorough study. However, similar to all studies ... e are certain limitations to it.

6.2 Implications

The implications of this study are varied. Firstly, it is useful for the investors to ascertain which types of companies disclose more than others. Also investors can examine the opinions and weights given by financial analysts and evaluate their decision-making processes. The study also has great implications for regulators who could ascertain if regulation can play an important role in increased disclosure by companies or there is no necessity for further regulation.

6.3 Limitations

The major limitation of the study is the sample size of annual reports. Although in comparison to past studies on India the sample size can be considered reasonable[12] but in comparison to studies on disclosure practices of other countries, the sample size is relatively small. A larger sample can be useful for the stability of the regression equation.

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[12] Marston & Robson, (1997) used 29 pairs of annual reports for two accounting periods and Singhvi (1968) used 45 annual reports.

The limited number of responses from the financial analysts can also be regarded as a limitation. Although the Institute of chartered financial analysts was requested with letters to provide for a list of financial analysts, no response was received from them. The weights were determined as per the opinion of only seven analysts. The study could have produced stronger results if more analysts would have responded.

Another potential limitation of the study is the measurement of the variables. While each of the variables could be tested in a number of ways one can argue that one particular measurement is not enough for a variable. For instance, market capitalisation was used to test firm size. It can be argued that market capitalisation is a rare method of measuring firm size and the more common measurements are total assets, sales and total shareholders (McNally et al. 1982, Chow & Wong Boren, 1987).

While the financial year 1999-2000 has been considered very important to the study, this can be a possible limitation to the study. Although the accounting standards gained legal recognition during 1999-2000 one can argue that the companies were not given enough time to adopt the mandatory standards. It might be seen that those companies that particularly had fewer amounts of disclosures in 1999-2000 could have adopted the standards in the subsequent years thereby increasing their overall disclosure levels.

6.4 Recommendations for Future Research

As mentioned in the limitation section, the study considers the annual report 1999-2000. Future research can be conducted to measure the extent of disclosure longitudinally to determine whether the extent of disclosure has been improved over time. Research can also be conducted on disclosure by firms of a particular industry to see whether firm characteristics influence the disclosure practices of the firms in the industry.

Another area of future research is a similar study with a larger number of items in index. The number of items in the disclosure index is limited to 19 in this study because Indian accounting is relatively unsophisticated and inclusion of more items would have lead to a number of items being not applicable. However, it has to be borne in mind that Indian accounting environment is changing in a very fast pace and so in future research more items can be included. Also, instead of measuring aggregate disclosure, future studies can be conducted on mandatory and voluntary disclosures separately. Also, instead of using financial analysts, opinions of other groups of users could also be used to ascertain weights for disclosure information.

Also, as mentioned in the limitation section, the independent variables can be measured in different ways in future. For example, firm size can be measured by the number of employees, total sales, total assets or other values instead of market capitalisation. A number of other independent variables can be examined like listing status, industry type, and qualification of the audit report.

Finally, this study can be replicated in other countries especially in countries that have similar accounting practices, cultural and economic background like India. This is because several countries were a colony of Britain for a long period of time and their accounting practices are based on British Companies Act just like India. Findings of such similar studies will ascertain if countries with similar accounting practices have similar firm characteristics influencing disclosure.

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APPENDIX A

QUESTIONNAIRE SURVEY ON DISCLOSURE PRACTICES

Kindly rate the following items of information in terms of disclosure by companies in the annual report. Please circle the appropriate numbers.

Items of information	Not important	Of little importance	Important	Very important
1. Financial history	1	2	3	4
2. Segment reporting: Product line	1	2	3	4
3. Segment reporting: Geographical area	1	2	3	4
4. Capital Expenditure: Current	1	2	3	4
5. Capital expenditure: Planned	1	2	3	4
6. Depreciation method	1	2	3	4
7. Cash flow statement	1	2	3	4
8. Retained earnings statement	1	2	3	4
9. Fixed asset composition	1	2	3	4
10. Inventory composition	1	2	3	4
11. Price-level adjusted statement	1	2	3	4
12. Market value of marketable securities	1	2	3	4
13. Currency translation method	1	2	3	4
14. Depreciation life	1	2	3	4
15. Foreign exchange gains	1	2	3	4
16. Sales and gross margin	1	2	3	4
17. Income tax disclosure	1	2	3	4
18. Number of stockholders	1	2	3	4
19. Type of management (MNC influence)	1	2	3	4

Thanks for taking out time to fill up this questionnaire.

APPENDIX B

List of sample companies used in the study

Name of the companies
1. ABB
2. AMI Computers India Ltd
3. Bajaj Auto Ltd
4. Bata
5. Beeyu Overseas Ltd
6. Bharat Heavy Electricals
7. BPL Ltd
8. BSES
9. BTW Industries
10. Cadburys
11. Castrol India
12. Century Textiles and Industries Ltd
13. Ciba
14. Coal India
15. Colagte Palmolive
16. Essar Steel Ltd
17. Glaxco India Ltd
18. Global Telesystems
19. Godfrey Philips
20. Godrej India
21. Good Year
22. Grasim Industries Ltd
23. Gujarat Ambuja Cement
24. Gujarat Industries Power Co Ltd
25. Hindustan Antibiotics
26. Hindustan Lever Ltd
27. Hindustan Photo Films
28. HLCL

APPENDIX B (CONTD)

29. Infar
30. Ispat Industries Ltd
29. ITC Ltd
30. Kale Consultants
31. Kodak India
32. L&T
33. Max India
34. McDowell
35. National Fertilizers Ltd
36. Nestle
37. Nirma
38. Reckitt & Colman India
39. Reliance Industires Ltd
40. Rica Sugar Co. Ltd
41. Rolta India
42. Satyam
43. SE Asia Marine
44. Siemens
45. Steel Authority of India
46. Tata Electric
47. Tata Elxsi
48. Tata Engineering
49. Tata Libert
50. Tata Metaliks
51. Tata Steel
52. Tata Tea
53. The Morarjee Gogculdas
54. WIPRO
55. Yarn Syndicate Ltd