

The Extent of Disclosure in Annual Reports of Banking Companies: The Case of India

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Abstract

This study is an empirical investigation of the extent of both mandatory and voluntary disclosure by listed banking companies in India. It also reports the results of the association between company-specific attributes and total disclosure, i.e., mandatory and voluntary, of the sample companies. A total of 184 items were selected of which 101 and 81 were mandatory and voluntary respectively. The study revealed that in disclosing mandatory items, the average score is 88, whilst the average score for voluntary disclosure is 25. The findings also indicate that size, profitability, board composition, and market discipline variables are significant, and other variables such as age, complexity of business and asset-in-place are insignificant in explaining the level of disclosure. Results also indicate that Indian banks are very compliant with the rules regarding mandatory disclosure. In contrast, they are far behind in disclosing voluntary items. This paper has contributed to the academic literature, showing that the existence of a close monitoring system by regulatory authorities brings the potential for high compliance regarding disclosure and transparency, at least in mandatory cases. This study would be a good example for other developing countries, wanting to learn how Indian banks achieved this high level of compliance in mandatory disclosure.

Keywords: India, Mandatory Disclosure, Voluntary Disclosure, Disclosure Index

1. Introduction

India is currently widely regarded as a new growth engine and an indispensable participant in the global economy. The economy of India is the fourth largest in the world as measured by Purchasing Power Parity (PPP), with a Gross Domestic Product (GDP) of US \$3.611 trillion. It is also the second fastest growing major economy in the world, with a GDP growth rate of 7.6% at the end of the first quarter of 2005–2006 (World Fact Book, 2006). The Indian financial system is characterised by a large network of commercial banks, financial institutions, stock exchanges, and a wide range of financial instruments (Agarwal, 2000). The Basel Committee on Banking Supervision (henceforth Basel) released a document entitled ‘Enhancing Bank Transparency’ (BASEL, 1988), which considers transparency to be a key element of an effectively supervised, safe and sound banking system and recommends that banks, in regular financial reporting and other public disclosures, provide timely information which facilitates market participants’ assessment of banks. Therefore, adequate public disclosure facilitates a more efficient allocation of capital between banks, since it helps the market to

accurately assess and compare the risk and return prospects of individual banks. This study investigates the disclosure practices of banking companies in India to see to what extent they disclose mandatory and voluntary information, considering the existing banking Act, rules, and recommendations/guidelines of professional and/or regulatory institutions/bodies. In addition, it examines the association between company characteristics and the extent of disclosure.

The remainder of the paper is organised as follows. Section 2 discusses the importance of disclosure in economics and accounting. Section 3 describes the regulatory environment for disclosure in India. Section 4 presents a review of the literature and develops the study's hypotheses. The research design is outlined in Section 5. Section 6 presents the results and analysis. Finally, Section 7 presents the conclusions, limitations and directions for future research.

2. The Importance of Disclosure in Economic and Accounting Research

The disclosure-related literature has developed into a distinct branch of economic and accounting research (Frolov, 2004). Following the taxonomy suggested by Verrecchia (2001), it is easy to distinguish three major research problems confronted by the literature.

- i. whether information disclosure is economically efficient in general;
- ii. the effect of information disclosure on the aggregate behaviour of economic agents;
- iii. the circumstances surrounding the decision to make private information public.

Firstly, researchers have sought answers to the general question about whether information disclosure is economically efficient in general. In this respect, two theorists suggest differing explanations for the per-se desirability of information disclosure¹. On the one hand, Kunkel (1982) shows that in an economy including both production and exchange, information disclosure may be preferred because altered production plans lead to more efficient allocation of resources across time and firms. On the other hand, Diamond (1985) also suggests that in a pure exchange setting with costly acquisition of private information, the (costless) information disclosure is desirable because it will allow investors to economise on the acquisition of private information and make them better off, despite adverse risk-sharing effects. Secondly, the literature on disclosure-related research focuses on the effect of information disclosure on the aggregate behaviour of economic agents, and in particular on the behaviour of financial market aggregates like stock prices and trading volume. The literature attempts to explain empirically observed phenomena in the association between information disclosure and market responses, using plausible assumptions about diversity among market participants². Finally, the disclosure literature devotes much attention to the circumstances surrounding the decision to make private information public. It is a standard argument here that management's decision about whether to disclose information or not is based on weighing expected costs and benefits of making the information public (Frolov, 2004). The available literature has suggested many ways that a firm or its management can benefit from improved disclosure. For example, direct evidence that firms increase the intensity of their disclosure efforts before offering public debt and equity has been obtained by Lang and Lundholm (1993, 1996), Frankel et al. (1995), Healy et al. (1999), etc. The list of other suggested explanations of voluntary information disclosure includes motives related to institutional factors and signalling to the market.³

The above discussion shows that while information disclosure is socially desirable (Frolov, 2004; Diamond, 1985), the interplay between its benefits and costs may lead to partial or no disclosure, and one therefore should ask whether the disclosure should be voluntary or mandatory. Indeed, the

¹ Early literature on disclosure suggested that since under the simultaneous assumptions of pure exchange and perfect market competition, information disclosure may lead only to wealth redistribution among agents, this leaves no place for disclosure-based (weak) Pareto improvements (Verrecchia, 2001).

² For an elaboration on this direction of research see, e.g., Verrecchia (2001).

³ As surveyed by Healy and Palepu (2001), the management of firms may also be interested in improved disclosure since it reduces the risk of premature resignation because of poor stock performance (e.g., studies by Palepu, 1986; Morck et al, 1990) and the cost of litigation (Skinner, 1994), increases the value of the management's stock options (Noe, 1999; Aboody and Kasznik, 2000; Miller and Piotroski, 2000), and facilitates more signals to the market about the superior strategic management abilities of the COEs (Trueman, 1986).

economic and accounting literature has asserted that in the view of informational asymmetry, (costless) disclosure of private information brings general gains in economic efficiency. However, the size of the gains and the ultimate effect on financial prices may vary considerably depending on the 'informativeness' of disclosed information and on the ways the information is disseminated and used.

3. Environments of Financial Reporting in India

The financial reporting and disclosure of banking companies in India are regulated by the Companies Act 1956, the Banking Regulation Act 1949, the rules of the Securities and Exchange Board of India (hereafter SEBI), and the guidelines of the Reserve Bank of India (hereafter RBI), as well as the recommendations of the Institute of Chartered Accountants of India (ICAI). The Banking Regulation Act 1949 provides a framework for regulation and supervision of commercial banking activity. Section 29(1) of the Banking Regulation Act 1949 states that at the expiration of each calendar year, every banking company shall prepare a balance sheet and profit and loss account, in the forms set out in the Third Schedule Form A and Form B of the Act respectively. Section 30(1) states that the balance sheet and profit and loss account should be prepared in accordance with Section 29 and audited by a person duly qualified under law. Section 31(1) also states that the accounts and balance sheet, together with the auditor's report, shall be published in the prescribed manner and three copies thereof shall be furnished as returns to the RBI within three months from the end of the period. Section 32 requires that three copies of the accounts and balance sheet, together with the auditor's report, should be sent to the Registrar of Company Affairs.

The SEBI monitors and regulates corporate governance of listed companies in India through Clause 49. This clause is incorporated in the listing agreement of stock exchanges with companies and it is compulsory for them to comply with its provisions⁴. Under Clause 49, there is a requirement for a separate section on Corporate Governance in the Annual Reports of companies, and for a detailed compliance report on Corporate Governance. This report contains nine sections dealing with the board of directors, audit committee, remuneration of directors, shareholders' grievance committee, general body meeting (board procedure), disclosure of related parties, means of communication, general shareholders' information, others including risk management, management discussion and analysis, information and compliance respectively. It is also noted that the company must obtain a certificate from either the auditors or practising company secretaries regarding compliance of conditions of corporate governance as stipulated in this clause, and annex the certificate with the directors' report, which is sent annually to all the shareholders of the company. The same certificate must also be sent to the Stock Exchanges along with the annual report filed by the company.

The RBI is committed to enhancing and improving the levels of transparency and disclosure in banks' annual accounts. In addition to its traditional central banking functions, the RBI has certain non-monetary functions regarding the nature of banks' supervision, and the promotion of sound banking in India. The Reserve Bank Act 1934, and the Banking Regulation Act 1949 invested the RBI with wide powers of supervision and control over commercial banks, relating to licensing and establishments, branch expansion, liquidity of their assets, management and methods of working, amalgamation, reconstruction, and liquidation. Consequently, it is authorised to carry out periodical inspections of the banks and to call for returns and necessary information from them.

There are two professional bodies working in India, these being, the Institute of Chartered Accountants of India (ICAI), and the Institute of Cost and Works Accountants of India (ICWAI). Accounting practices in India conform with the Accounting Standards set by the ICAI, and to date, 28 standards have been adopted in India. According to ICAI, India is materially in conformity with the International Financial Reporting Standards (IFRS) and International Standards on Auditing (ISA). The

⁴ All listed companies with paid up capital of Rs 30 million (USD 660,000) or with a net worth of Rs 250 million (USD 5.5 million) must comply with Clause 49. There are mandatory and non-mandatory requirements.

ICWAI is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

Capital markets in India comprise equity, debt, foreign exchange and derivatives markets. India has the number one ranking in terms of listed securities on the Exchanges, followed by the USA (NSE, 2004). As at the end of March, 2004, there were 9,368 trading members registered with SEBI with 10,100 companies listed (Annual Report of SEBI, 2004). There are 23 stock exchanges in India, the two major ones being the Bombay Stock Exchange (now called The Stock Exchange, Mumbai, hereafter BSE), and the National Stock Exchange (NSE). The BSE is the oldest stock exchange in Asia established in 1878. Listed companies must comply with the rules and regulations prescribed by the Securities and Exchange Board of India Act 1992. Indeed, under the Company Act, management must explain any deviations from the prescribed accounting standards in the financial statements. The sanctions for non-compliance with financial disclosure regulations range from a maximum fine of Rs 2,000 (USD 44) to imprisonment of up to six months. If the auditor's signed reports do not conform with the law, the maximum penalty is Rs 10,000 (USD 220).

4. Literature Review and Development of Hypotheses

There has been extensive research in the advanced, and developing countries to measure the corporate disclosure in financial and non-financial companies. (See for example, Cerf, 1961; Singhvi and Desai, 1971; Buzby, 1974; Kahl and Belkaoui, 1981; Marston, 1986; Wallace, 1987; Cooke, 1989a, 1989b, 1991, 1992, 1993; Malone et al., 1993; Hossain et al., 1994; Ahmed and Nicholls, 1994; Wallace and Naser, 1995; Inchausti, 1997; Craig and Diga, 1998; Hossain, 2000; Hossain, 2001; Haniffa and Cooke, 2002; Akhtaruddin, 2005).

However, the study of Kahl and Belkaoui (1981) was comprehensive, investigating the overall extent of disclosure by 70 banks located in 18 countries. Their results indicated that the extent of disclosure was different among the countries examined, and that there was a positive relationship between size of the bank and the level of disclosure indicated. Hossain (2001) empirically investigates the extent of disclosure of 25 banks in Bangladesh and associations between company size, profitability, and audit firm with disclosure level. A total of 61 items of information, both voluntary and mandatory, were included in the disclosure index, and the approach to scoring items was dichotomous. The results showed that size and profitability of the banks are statistically significant in determining their disclosure levels. However, the audit firm variable was not significant at conventional levels in the model. Chipalkatti (2002) examined the association between the nature and quality of annual report disclosures made by 17 Indian banks and market microstructure variables. He constructed a Bank Transparency Score (BTS) consisting of 90 items of information considering the recommendations of the Basel committee and IAS 30. The study showed no significant association between the level of disclosure and percentage of shares held by the government, and the percentage of shares held by foreign shareholders respectively. The results also indicated that larger banks provide more transparent disclosure and there was no significant difference in the disclosure scores of banks across profitability levels, but banks with lower levels of leverage did have significantly higher disclosure scores. Baumann and Nier (2003) addressed the issues of developing a set of disclosure requirements by Pillar 3 of Basel II that improved market participants' ability to assess a bank's value using a unique dataset on almost 600 banks in 31 countries over the period 1993-2000⁵. The dataset contains detailed information about the items disclosed by banks in their annual accounts. They constructed a composite disclosure index that informs about disclosure at the bank level, and they then analysed each of the 17 sub-indices of disclosure that make up the composite index in order to investigate which, if any, items of the banks' balance sheet disclosure are most beneficial from the point of view of the bank and most useful for financial markets. Their findings generally confirm the

⁵ These are Australia, Argentina, Belgium, Brazil, Canada, Chile, Finland, France, Germany, Hong Kong, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, the Netherlands, Norway, Poland, Portugal, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, the UK and the US.

hypotheses that disclosure decreases stock volatility, increases market values, and increases the usefulness of company accounts in predicting valuations. Based on the results of prior empirical research, the special characteristics of banking companies, and data availability, nine hypotheses were developed for this study, a detailed analysis of which is now presented.

4.1 Age

The extent of a company's disclosure may be influenced by its age, i.e. stage of development and growth (Owusu-Ansah, 1998; Akhtaruddin, 2005). Owusu-Ansah (1998, p. 605) pointed out three factors that may contribute to this phenomenon. Firstly, younger companies may suffer competition, secondly, the cost and the ease of gathering, processing, and disseminating the required information may be a contributory factor, and finally, younger companies may lack a track record on which to rely for public disclosure. Kakani et al. (2001) pointed out that newer and smaller firms, as a result, take to the market in spite of disadvantages like their lack of capital, brand name and reputation with older firms. However, it is not possible to reach a conclusion that long-established banks can disclose more information or be more compliant than newly-established banks. This leads to the following hypothesis:

H1: Long-established banks may disclose more information than newly-established banks.

4.2. Size

The size of the bank is a potentially important explanatory variable in relation to the extent of disclosure. Most researchers in this area find a close relationship between these two variables, both in developing and developed countries. (See for example, Singhvi and Desai, 1971; Kahl and Belkaoui, 1981; Cooke 1989a, 1992; Ahmed and Nicholls, 1994; Hossain et al., 1994; Wallace et al., 1994; Craig and Diga, 1998; Hossain, 2000; Hossain, 2001). In this body of a research, a positive relationship has been found between company size and the extent of disclosure. A number of reasons have been advanced in the literature in an attempt to justify this relationship on *a priori* grounds. For example, Singhvi and Desai (1971, p.131) offered three justifications for the variations in the extent of financial disclosure in firms of different sizes. Firstly, the cost of accumulating certain information is greater for small firms than for large firms. Secondly, larger firms have a greater need for disclosure because their securities are typically distributed via a more diverse network of exchanges, and thirdly, management of a smaller corporation is likely to believe more strongly than the management of a larger corporation, that the full disclosure of information could endanger its competitive position. Thus, the following hypothesis is established.

H2: Banks with different values of total assets disclose varying amounts of financial information.

4.3. Profitability

Most researchers have found a positive relationship between profitability and the extent of disclosure. (See for example, Cerf, 1961; Singhvi, 1968; Singhvi and Desai, 1971; Belkaoui and Khal, 1981; Wallace et al., 1994; Wallace and Naser, 1995; Raffournier, 1995; Inchausti, 1997; Hossain, 2000; and Hossain 2001). Banks are engaged in the kind of business where returns are expected. The profit-earning mechanism depends *inter alia* on how effectively the banks conduct their lending and borrowing activities. The following hypothesis has thus been established:

H3: Banks with higher profit disclose financial information to a greater extent than do those banks with lower or negative profit.

4.4. Complexity of Business

Haniffa and Cook (2002) argued that structural complexity has a significant influence on the extent of disclosure. Such complexity requires a firm to have an effective management information system for monitoring purposes (Courtis, 1978; Cooke, 1989a) and the availability of such a system helps to

reduce the cost of information per unit, thereby providing the expectation of higher disclosure. Here, structural complexity is defined as the actual number of subsidiaries, as evident in Indian banks. In this respect, it is hypothesised that:

H4: Banks with subsidiaries may disclose more banks without subsidiaries.

4.5 Assets-in-place

Hossain (2000) and Hossain and Mitra (2004) found assets-in-place systematically influence the level of disclosure. Butler et al. (2002) argued that firms with a higher percentage of tangible assets have lower agency costs because it is more difficult for managers to misappropriate well-defined assets in place than to extract value from uncertain growth opportunities. Therefore, since these firms have lower agency costs, they can reduce their reliance on disclosures. An increase in the firm's fixed assets results in lower in agency costs, and consequently lower disclosure (Myers, 1977). Therefore, the following hypothesis has been established:

H5: There is a negative association between the proportion of assets-in-place and the extent of disclosure of information.

4.6. Board Composition

Board composition might be an interesting variable to consider because it will indirectly reflect the role of non-executive directors (Haniffa and Cook, 2002, p. 320). The premise of agency theory is that boards are needed to monitor and control the actions of directors due to their opportunistic behaviour (Berle and Means, 1932; Jensen and Meckling, 1976). Mangel and Singh (1993) believe that outside directors have more opportunity for control and face a more complex web of incentives, stemming directly from their responsibilities as directors and augmented by their equity position. Others who also see the role of non-executive directors as monitors/controllers of management's performance and actions, include Fama and Jensen (1983), Brickley and James (1987), Weisbach (1988), and Pearce and Zahra (1992). Additionally, outside directors may be considered to be decision experts (Fama and Jensen, 1983), may reduce managerial consumption of pre-requisites (Brickley and James, 1987), will not be intimidated by the CEO (Weisbach, 1988), and act as a positive influence over the directors' deliberations and decisions (Pearce and Zahra, 1992). Thus, it is hypothesised that:

H6: There is a positive association between the proportion of non-executive directors on the board and the extent of disclosure of information.

4.7. Market Discipline

In recent years, considerable attention has been paid to the topic of market discipline in banking (Nier and Baumann, 2003; Ghosh and Das, 2000). Market discipline refers to a market-based incentive scheme in which investors in banking liabilities, such as subordinated debt or uninsured deposits, 'punish' banks for greater risk-taking by demanding higher yields on those liabilities (Nier and Baumann, 2003). Market discipline in the banking sector can be described as 'private counter party supervision' (Greenspan, 2001). There are a number of potential benefits from enhancing market discipline in a country's banking sector. Firstly, by punishing excessive risk-taking by banks, increased market discipline may reduce moral hazard incentives. Secondly, market discipline may improve the efficiency of banks by pressurising some of the relatively inefficient banks to become more efficient or to exit the industry (Berger, 1991). Thirdly, evidence indicates that markets give signals about the credit standings of financial firms, which, combined with inside information gained by supervisory procedures, can increase the efficacy of the overall supervisory process. Finally, market discipline might be able to supplement traditional supervisory assessments to distinguish 'good' banks from 'bad' ones and therefore, lower the overall social costs of bank supervision (Flannery, 2001). Since India has made significant efforts to promote the role of market forces in regulating banks, it is expected that banks are committed to provide more information in the annual reports. Cordella and Yeyati (1998) and Boot and Schmeits (2000), pointed to the commitment effect of bank disclosure. According to

them, banks that disclose more information choose lower default risk in equilibrium. The idea is that a bank that discloses its risk profile exposes itself to market discipline and will, therefore, be penalised by investors for choosing higher risk. This effect is absent if investors do not know the risk profile of the bank and weaker if the amount of information available to investors is limited. India, in the last decade, has undergone a liberalisation of the banking sector with the avowed objective of “enhancing efficiency, productivity and profitability” (RBI, 1991). From the above discussion, it has been understood that the bank regulator measures the bank-specific variables, in other words, measures the bank’s risk exposure referred to as the CAMEL rating, which captures certain characteristics of market discipline. CAMEL is the acronym for Capital Adequacy, Asset Quality, Management Competence, Earnings and Liquidity, and covers the five major parameters of bank operations⁶. Most studies (Sinkey, 1975; and Espahbodi, 1991) conclude that CAMEL ratings generally reflect the soundness of financial institutions. However, in the absence of published CAMEL data, two alternative variables have been chosen, i.e., Non-performing assets (NPA) and Capital adequacy ratio (CAR). An NPA is defined in India as an asset with interest or principal repayment instalment unpaid for a period of at least two quarters. NPAs form a substantial burden for individual banks as well as for a country’s banking system generally. They represent the poor quality of bank’s assets, have to be provisioned for through the use of its capital. In order, to ensure uninterrupted good performance of financial institutions, the regulatory authorities have specified the minimum capital for such institutions, by a requirement called Capital Adequacy. The RBI has specified this for banks and the SEBI in turn, has prescribed the Capital Adequacy for all financial intermediaries under its regulatory authority. If banks can maintain NPA and CAR at acceptable levels, this might have an impact on disclosure. It is not clear what to expect in terms of this variable, but the hypothesis can be established as follows:

H 7: Banks with lower NPA and/or minimum CAR will disclose more information and be more compliant than banks with higher NPA/CAR.

5. Method

5.1 Selection of Sample

The study focuses on the banking sector in India. On 30th June 2004, the total number of banking companies listed on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE), was 38, of which 18 were public sector and 20 private sector banks. There are 23 recognised stock exchanges in India, only two of which are considered by the researchers in this study, these being the BSE and NSE., for the following reasons. The BSE is the India’s second largest stock exchange, the oldest stock exchange in Asia, second on the basis of listed companies in the world, the third largest nation in respect of share holding population, and fourth in terms of capitalisation (Ganesan 1994, p.177), and the NSE was established as a model exchange to provide nation-wide services to investors. Hence, the actual sample represents about 100% of the population of banking companies listed on the stock exchanges. Annual reports for the year 2002-03 were collected through a service provider in PDF format.

5.2. Scoring of the Disclosure Index

Both a weighted disclosure index and an unweighted disclosure index are usually used to determine disclosure level. Researchers such as Wallace et al. (1994), Cooke (1991 and 1992), Karim (1995), Hossain et al (1994), Ahmed and Nicholls (1994), and Hossain (2000 and 2001), adopted a dichotomous procedure in which an item scores one if disclosed and zero if not disclosed and this approach is conventionally termed the unweighted approach. The weighted disclosure approach (used by for example by Barrett, 1977, and Marston, 1986), involves the application of weights above zero

⁶ For example, Capital adequacy is measured by the ratio of capital to risk-weighted assets (CRAR), Asset Quality is the ratio of non-performing loans to total loans (GNPA), to account for management quality, the ratio of non-interest expenditures to total assets (MGNT) reflects management ability, Earnings is the return on asset ratio, and the cash plus balances with central bank to total asset ratio (LQD) is included as an indicator of bank liquidity.

but less than one to items of information which are disclosed (zero is the weight for non-disclosure). Previous experiences also show that the use of unweighted and weighted scores for the items disclosed in the annual reports and accounts can make little or no difference to the findings (Coombs and Tayib, 1998).

Thus, we have chosen the unweighted disclosure index methodology. In this case, the key fact is whether or not a company discloses an item of information in the annual report. If a banking company discloses an item of information in its annual report, then '1' will be awarded and if the item is not disclosed, then '0' will be awarded. Thus, the unweighted disclosure method measures the total disclosure (TD) score of a banking company as additive (suggested by Cooke, 1992) as follows:

$$TD = \sum_{i=1}^n d_i$$

Where,

$d = 1$ if the item d_i is disclosed

$0 =$ if the item is not disclosed

$n =$ number of items

However, the fundamental theme of the unweighted disclosure index is that all items of information in the index are considered equally important to the average user. The Disclosure Index has been proved in appendix 1.

5.3. The Selection of Mandatory Items

The following criteria have been followed to select the mandatory items of information. Both quantitative and qualitative items in the annual reports of the sample banks are considered. Under the following criteria, the total items of mandatory information come to 101 (See Table 1)

Table 1: The Selection of Mandatory Items in the Disclosure Index

Main sources of information	Items identified as Mandatory by categories wise (Numbers)	Total
Banking Companies Act, 1949	Balance sheet	13
	Profit and Loss Account	07
Company Act, 1956.	Director's report	5
Listing Rules - Clause 49	Corporate Governance Report	44
Company Act 1956	The Management Discussion and Analysis	08
RBI guidelines	Circular issued	24
Grand Total		101

5.4. The Selection of Voluntary Items

Research that focuses on voluntary disclosure of financial companies is almost absent. Some studies have considered the social reporting of financial companies including Islamic banks (Harahap, 2003; Maali et al., 2006).

Table 2: The Selection of Voluntary Items in the Disclosure Index

	Titles		Sources cited as example
1	Background about the bank	06	Kahl and Belkaoui (1981); Ahmed and Nicholls (1994); Singhvi (1968)
2	Corporate strategies	03	Craig and Diga (1998)
3	Corporate governance	11	Haniffa and Cooke (2002); BASEL (1999)
4	Financial performance	13	Cooke (1991, 1992); BASEL (1998)
5	General Risk management	07	BASEL (1999); Chipalkatti (2002)
6	Credit risk exposure	08	BASEL (2003); Chipalkatti (2002)
7	Market risk exposure	04	BASEL (1999); Chipalkatti (2002)
8	Interest rate risk	03	BASEL (1999); Chipalkatti (2002)
9	Currency risk	03	BASEL (1999); Chipalkatti (2002)
10	Liquidity risk exposure	03	BASEL (1999); Chipalkatti (2002)
11	Accounting policy review	02	BASEL (1998); Hossain et al. (1995)
12	Corporate social disclosure	04	McGrath (2003); Peterson and Hermans (2004)
13	Key non-financial statistics	08	Inchausti (2000); Hossain (2001);
14	Others	08	Hossain (2001); Kahl and Belkaoui (1981)
Grand Total		83	

However, the international financial institutions like the IMF, and World Bank, have also given importance to the transparency and disclosure of financial companies. Similarly, other organisations like the US FSAB, the US Federal Reserve System, and the 'Standard and Poor' have also published guidelines regarding disclosing voluntary items. Table 2 that follows, is the list of chosen voluntary items, with their sources mentioned as examples.

Having considered the above factors, a total of 83 items under 14 categories of voluntary information were identified as relevant and could be expected to be disclosed in the annual reports of India's banking institutions. The total list of the 83 voluntary items is presented in Table 3.

Table 3: Disclosure Score of Mandatory and Voluntary Items

Public Sector Banks	Mandatory Disclosure Score (101)	Voluntary Disclosure Score (83)	Total Disclosure Score (184)	Rank According to score
1. Allahabad Bank	84	27	58	10
2. Andhra Bank	86	33	62	7
3. Bank of Baroda	97	31	67	3
4. Bank of India	94	31	66	4
5. Canara Bank	80	33	59	9
6. Corporation Bank	98	43	73	1
7. Dena Bank	74	17	48	15
8. Indian Overseas Bank	83	24	57	11
9. Oriental Bank of Commerce	83	41	64	64
10. Punjab National Bank	91	31	64	5
11. Syndicate Bank	88	29	61	8
12. Union Bank of India	84	35	62	7
13. Vijaya Bank	81	27	57	11
14. State Bank of India	89	31	63	6
15. State Bank of Bikaner and Jaipur	86	27	59	9
16. State Bank of Indore	83	19	54	14
17. State Bank of Mysore	79	24	54	14
18. State Bank of Travancore	93	24	61	8
Private Sector Banks				
19. Bank of Rajasthan Ltd.	94	40	70	2
20. City Union Bank Ltd.	88	22	59	9
21. Dhanalakshmi Bank Ltd.	86	23	58	10
22. Federal Bank Ltd.	85	22	57	11
23. ING Vysya Bank Ltd.	91	35	66	4
24. Jammu and Kashmir Bank Ltd.	89	22	59	9
25. Karnataka Bank Ltd.	92	13	56	12
26. Karur Vysya Bank Ltd. 13	89	19	58	10
27. Lakshmi Vilas Bank Ltd.	89	15	55	13
28. South Indian Bank Ltd.	93	29	64	5
29. United Western Bank Ltd.	88	13	54	14
30. Bank of Punjab Ltd.	88	14	55	13
31. Centurion Bank Ltd.	88	13	54	14
32. Global Trust Bank Ltd.	98	27	66	4
33. HDFC Bank Ltd.	91	18	58	10
34. ICICI Bank Ltd.	92	33	66	4
35. IDBI Bank Ltd.	86	25	59	9
36. Indusland Bank Ltd.	96	25	63	6
37. Kotak Mahindra Bank Ltd.	91	21	59	9
38. UTI Bank Ltd.	94	26	63	6

5.5. Model Development

The following Ordinary Least Square (OLS) regression model is to be fitted to the data in order to assess the effect of each variable on the disclosure level:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + e$$

Where Y = total disclosure score received for each bank

β_0 = the intercept; e = the error term

Table 4 reports the proxies used for independent variables and the predicted direction of the relation with the extent of disclosure, for each hypothesis.

Table 4: Proxies and Predicted Signs for Explanatory Variables

Hypotheses	Predicted Signs	Proxies
Age	+	Age of the banks in years
Size	+	Logarithm of total assets
Profitability	+	Return on assets
Complexity of business	+	Actual number of subsidiaries
Assets-in-place	-	Book value of net fixed assets to book value of total assets
Board Composition	+	Ratio of non-executive independent directors to total number of directors on the Board
Market discipline	±	= Capital adequacy ratio
	±	= Non-performing assets to total assets ratio

6. Univariate Analysis

6.1 Level of Disclosure

Table 5 reports the descriptive statistics of the disclosure scores (dependent variables). On average, banks publish 60% of the total disclosure of which 88% are mandatory and 25% are voluntary items. The overall level of disclosure including the ranking of the bank according to the disclosure score is presented in Table 3. The highest score is obtained by a the Corporation Bank (a public sector bank), whilst the second highest is obtained by the Bank of Rajasthan Ltd. (a private sector bank). However, the lowest score is obtained by a public sector bank, i.e. Dena Bank. The overall disclosure scores range from 48 to 73 and the mean value is 60.21. The descriptive statistics are presented in Table 5. The highest score (98) of mandatory items is obtained jointly by two banks, these being the Corporation Bank, and the Global Trust Bank Ltd., belonging to the public and private sector respectively. It is also noted that mandatory items score of the public sector banks ranged from 74 to 98 with a mean and standard deviation of 86.27 and 6.433 respectively, while the mandatory items score of private sector banks is in the range 85 to 98 with a mean and standard deviation of 90.40 and 3.47 respectively. In the case of voluntary disclosure, it is seen that the Corporation Bank also gains the highest score (48). Among the private sector banks, the highest score of voluntary items (40) is obtained by the Bank of Rajasthan Ltd. The average number of voluntary items disclosed by the public and private sector banks are 29.27 and 22.75 respectively with respective standard deviations of 6.65 and 7.58 (Table 5).

Table 5: Descriptive Statistics of Disclosure Scores

	Mean	Std. dev	Range	No. of banks
Total Disclosure Score	60.21	5.06	48 - 73	38
Mandatory disclosure score	88.65	5.56	74 - 98	38
Voluntary disclosure score	25.84	7.80	13 - 43	38
Mandatory disclosure score of Public banks	86.27	6.43	74 - 98	18
Mandatory disclosure score of Private banks	90.40	3.43	85 - 98	20
Voluntary disclosure score of Public banks	29.27	6.65	17 - 43	18
Voluntary disclosure score of private banks	22.75	7.58	13 - 40	20

6.2 Correlation Matrix and Multicollinearity Analysis

Multicollinearity in explanatory variables has been diagnosed through analyses of correlation factors and Variable Inflation Factors (VIF), consistent with Weisberg (1985). Table 6 presents the correlation matrix of the dependent and continuous variables, from which, it has been observed that the highest simple correlation between independent variables was 0.80 between NPA and Age. Judge et al. (1985), and Bryman and Cramer (1997) suggest that simple correlation between independent variables should not be considered harmful until they exceed 0.80 or 0.90. Simple correlations of 0.80 or 0.90

are usually associated with Variable Inflation Factors (VIF)⁷ of between 6 and 10. The VIF in excess of 10 should be considered an indication of harmful multicollinearity (Neter et al., 1989). In the present model, the largest VIF was observed in NPA at 4.892. The condition indices remained relatively low, staying below 10, and the highest variance contribution associated with the highest condition index was 0.618 (subsdiia). The remaining variance contributions were less than 0.60. Therefore, the observed correlations were not considered harmful. These findings suggest that multicollinearity between the independent variables is unlikely to pose a serious problem in the interpretation of the results of the multivariate analysis.

Table 6: Correlations Matrix

	AGE	LOGASSE	ROA	BOD	NPA	CAR	AINPLACE	SUBSIDIA
AGE	1	.363(*)	.253	.185	.033	.354(*)	.198	-.234
LOGASSE	.363(*)	1	.256	-.343(*)	-.210	.554(**)	.198	.140
ROA	.253	.256	1	.031	-.800(**)	.238	.170	.226
BOD	.185	-.343(*)	.031	1	.277(*)	-.262	-.398(**)	-.293(*)
NPA	.033	-.210	-.800(**)	.277(*)	1	-.252	-.347(*)	-.376(*)
CAR	.354(*)	.554(**)	.238	-.262	-.252	1	.289(*)	-.031
AINPLACE	.198	.198	.170	-.398(**)	-.347(*)	.289(*)	1	.412(**)
SUBSIDIA	-.234	.140	.226	-.293(*)	-.376(*)	-.031	.412(**)	1

* Correlation is significant at the 0.05 level (1-tailed).

** Correlation is significant at the 0.01 level (1-tailed).

6.3. Multivariate Analysis

We performed an Ordinary Least Square (OLS) regression model for all variables, the results of which are presented in Table 7. The multiple regression model is significant ($P < 0.005$). The adjusted coefficient of determination (R squared) indicates that 41% of the variation in the dependent variable is explained by variations in the independent variables. The coefficient representing assets (log of assets), ROA, BOD, NPA, CAR are statically significant between 1% to 6% level, while the coefficients for age, complexity of business and assets-in place are not statistically significant at 10%.

Table 7: MODEL

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics
Model					R Square Change
1	.734(a)	.538	.411	3.88541	.734(a)

a Predictors: (Constant), CAR, SUBSIDIA, ROA, BOD, AGE, AINPLACE, LOGASSE, NPA

b Dependent Variable: DINDEX

Coefficients

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics	
B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	44.083	6.260		7.042	.000	
AGE	.001	.025	.009	.050	.961	.487	2.052
LOGASSE	2.692	.570	.819	4.721	.001	.528	1.892
ROA	-437.483	146.620	-.809	-2.984	.006	.217	4.619
SUBSIDIA	-.064	.164	-.063	-.390	.699	.618	1.618
AINPLACE	2.437	1.946	.214	1.252	.221	.546	1.831
BOD	11.364	4.578	.424	2.483	.019	.546	1.831
NPA	-117.874	39.088	-.842	-3.016	.005	.204	4.892
CAR	-1.869	.559	-.550	-3.345	.002	.589	1.699

a Dependent Variable: DINDEX

⁷ VIF measures the variance of an estimator compared to what the variance would have been if the independent variable was not collinear with any of the other explanatory variables (Aczel, 1993).

6.4. Discussion of Regression Results

The adjusted R square of 0.411 compares favourably with similar studies using disclosure indices. The higher adjusted R square statistic is found in the study of Haniffa and Cooke (2002) at 46.3%, Ahmed (1996) at 33.2%, and Akhtaruddin (2005) at 55.7%.

The age variable is not significant. A similar result was found in Akhtaruddin (2005). This implies that the level of disclosure is not affected by the age of the bank or the number of years it has in business. Size by assets is statistically related to the level of information disclosed by the sample of banks in their annual reports. It is significant at a 1% level. The variable assets size (log of assets) was significantly positive and in line with the results from previous research as mentioned. The positive sign on the coefficient suggests that size has a direct influence on level of disclosure in the banking sector in India. The sign of the correlation coefficient of Profitability, as predicted, was positive and is significant at 1%. This is consistent with the view that more profitable banking companies disclose significantly more financial information than do less profitable ones. The result is also consistent with other previous studies such as Cerf (1961), Singhvi and Desai (1971), and Abu-Naser and Rutherford (1994). Complexity of Business is not significant. Therefore, this provides evidence that if the bank has subsidiaries at home and abroad, it is unlikely to disclose more information than a bank with no subsidiaries. The hypothesis for assets-in-place, is rejected. Board composition is also significant at 2%, as predicted. The two variables of NPA and CAR have been taken as a proxy for market discipline, the results showing that they are both significant at 5% and 2% respectively, but with negative signs. This situation indicates that the level of disclosure is adversely related to these variables. The reason may be the managements' conservative motives. For instance, in order to maintain standard NPA and CAR ratios as set by RBI guidelines, the bank may pursue low returns investments in the hope that a reduction in risk may compensate for the lowering of returns. Therefore, in this case banks will unwillingly limit their voluntary disclosure of information regarding future strategies, policies, profit margin and credit risk policy, to their shareholders, investors and depositors, but the regulatory bodies will be satisfied with the performance. Furthermore, the presence of a large number of public sector banks (47%), and the number of government shareholders may be another reason. The reality is that the government as a shareholder, does not clearly articulate its expectations at the time the institution is formed. The problem is further complicated by the fact that governments change and, therefore, there is a real risk of changes in expectations. If the expectations of the government shareholder are such, and they often are, that it impairs the economic viability of the entity itself, and the government hesitates in infusing the required resources, it could have grave consequences for the future of the entity. As a consequence, it is evident that there is a negative relationship between the degree of state ownership of banks and financial development (Barth et al., 2000). Barth et al. (2000) have also concluded that the greater the share of bank assets controlled by state-owned banks, on average, the less their financial development. The above evidence implies that government owned banks are complying with the rules. Thus, the better the compliance to the rules, the lesser the incentives for disclosing information. Finally, the central motivation of market discipline is that bank owners and managers act conservatively to limit bank risk. If risk increases and depositors demand higher interest rates or withdraw, then discipline has been effective if banks react to it by reducing bank risk. However, since deposits are the major source of funds for banks, depositors' actions may lead the banks to align their risk-taking incentives with those of depositors. This is known as market discipline, a key complement for the discipline imposed by supervisors. Because of the supervisory actions, and depositors' reaction, banks usually keep to ratings in the favourable position. This certainly implies a lower degree of disclosure, especially voluntary disclosure.

7. Conclusion and Limitations

The nature and focus of the present research is quite interesting and different from other studies. In other words, in order to maintain high quality disclosure and transparency, as well as to build up

investors and depositors' confidence, it is imperative to comply with the rules and regulations of the regulatory authorities. In addition, the guidelines/recommendations issued by the international organisations such as the World Bank, IMF, BASEL, IASC etc., should be followed in order to reach international standards of disclosure. India, in this case, has achieved the highest standard of disclosure practice, especially in mandatory disclosure and has made some progress in voluntary disclosure. In other words, voluntary disclosure is not as high as mandatory disclosure. However, some voluntary information, such as corporate social disclosure, corporate governance, and risk-related voluntary information, has been disclosed in the annual reports in the Indian banks to an acceptable level. This may be due to the fact that the Indian banking sector has been very closely monitored by regulators, and consequently, the disclosure practices, especially at the mandatory level, are found to show a high level of compliance.

The study has considered some corporate attributes in measuring their effect of level of disclosure, and reach the conclusion that size, profitability, board composition, and market discipline variables are significant, while other variables such as age, assets-in-place, and complexity of business are insignificant in explaining the disclosure levels. The study has given an idea at least of how the developing countries, especially India, perform the financial reporting duties in general, and how the banking sector in particular, does this. Ideally, increased transparency through the disclosure of timely and accurate information should enable a bank to access capital markets more efficiently. More broadly, market discipline based on this information should contribute to the efficient allocation of capital and provide incentives for banks to operate efficiently and to manage and control their risk exposures prudently. In particular, increased transparency should reduce the magnitude and frequency of bank problems, insofar as enhanced disclosure allows market participants to impose market discipline earlier and more effectively. These findings support the public policy advocated by the Basal Committee, the International Monetary Fund, the World Bank, and others, to increase disclosure and improve transparency in the banking sector.

The limitation of the research is that it covers a single year, a single country, and one specific sector, and in order to understand the nature of variations of overall disclosure, it is necessary to undertake a study taking five or ten years' data. Moreover, as this study represents the Indian banking sector's disclosure practices, the conclusions drawn on the findings would be more realistic by considering other financial institutions such as insurance, non-banking sector.

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Appendix 1

Disclosure Index (mandatory items)

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A	Background about the bank/general corporate information (06):
1	Brief narrative history of the Bank
2	Basic organisation structure/chart/description of corporate structure
3	General description of business activities
4	Date of establishment
5	Official address/registered address/address for correspondence
6	Web address of the bank/email address
B	Corporate Strategy (03):
7	Management's objectives and strategies/corporate vision/motto/statement of corporate goals or objectives
8	Future strategy - Information of future expansion (capital expenditures)/general development of business
9	Impact of strategy on future results
C	Corporate Governance (11):
10	Details about the chairman (other than name/title)/background of the chairman/academic/professional/business experiences

11	Details about directors (other than name/title)/background of the directors/academic/professional/business experiences
12	Number of shares held by directors
13	List of senior managers (not on the board of directors)/senior management structure
14	Background of senior managers
15	Details of CEO's contact address
16	Are the independent directors well-defined?
17	Nature of chairman of the board of directors
18	Directors' engagement/directorship of other companies
19	Picture of all directors/board of directors
20	Picture of chairperson only
D	Financial Performance (13):
21	Brief discussion and analysis of a bank's financial position
22	Discussion of the bank's liquidity position and about additional financing
23	Qualitative forecast of earnings
24	Return on equity
25	Net interest margin
26	Cost-to-income ratio
27	Earning per share
28	Risk-weighted assets
29	Debt-to-equity ratio
30	Total liquid assets to assets ratio
31	Total liquid assets to deposit ratio
32	Loan to deposit ratio
33	Dividend per share
E	General Risk Management (07):
34	Discussion of overall risk management philosophy and policy
35	Narrative discussions on risk assets, risk measurement and monitoring
36	Discussion on risks rise, how risk are managed and controlled
37	Whether and how hedges and derivatives are used to manage risks
38	Information on Risk management committee
39	Information on Assets-liability management committee
40	Information on Risk management structure
F	Credit Risk Exposure (08):
41	Disclosure on the magnitude of an institution's credit exposure on an aggregate basis
42	Information on credit risk management structure
43	Quantitative information on gross loan positions
44	Disclosures about the quality of the current loan and other counter-party exposures with quantitative information
45	Amount and details of problem loans and other assets or details by internal risk ratings
46	Disclosure of credit rating system/process
47	Ageing schedule of past due loans and advances (NPA)
48	Disclosure about risk management process (use of risk-mitigating tools such as collaterals, guarantees, netting agreement, managing concentrations)
G	Market Risk Exposure (04):
49	General descriptions of market risk segments
50	Disclosures on value-at-risk (VAR) for interest rate exposure
51	Disclosures on value-at-risk (VAR) for foreign exchange exposure
52	Disclosures on value-at-risk (VAR) for trading and derivatives securities exposure

H	Interest Rate Risk (03):
	Detailed quantitative information about the nature and extent of interest rate-sensitive assets, liabilities and off-balance sheet exposures including
53	(a) Averages
54	(b) Breakdown of fixed and floating rate items for liabilities
55	(c) Assets
I	Currency Risk (03):
	Summarised data for:
56	Significant concentrations of foreign exchange exposure by currency
57	Broken down by assets and liabilities
58	Maturity of foreign currency assets and liabilities
J	Liquidity Risk Exposure (03):
59	Information about the firm's available liquid assets as well as sources and uses of funds
60	Information on concentrations of depositors and other fund providers
61	Maturity information about deposits and other liabilities
K	Accounting Policy Review (02):
62	Discussion on its accounting policy
63	Disclosure of accounting standards uses for its accounts
L	Key Non-financial Statistics (08):
64	Age of key employee
65	Details of branch location
66	Number of branch
67	No. of branch expansion during the year 2002-03
68	Information on branch computerisations
69	Information on ATM
70	Location of ATM and their address
71	List of top five shareholders of the bank
M	Corporate Social Disclosure (04):
72	Sponsoring public health, sporting of recreational projects
73	Information on donations to charitable
74	Supporting national pride/government.-sponsored campaigns
75	Information on social banking activities/banking for the society
N	Others (08):
76	Chairman's/MD's report
77	On-line banking facilities
78	Information on credit card business
79	Information on international banking facilities
80	Information on welfare of employees
81	Information on ISO 9001: 2000 certification
82	Graphical presentation of performance indicators
83	Performance at a glance-3 year