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Accounting Standards Compliance: Comparison between Manufacturing and Service Sector Companies from India

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Abstract

The paper aims at identifying compliance level of Indian Manufacturing and Service sector companies with respect to Accounting Standards and possible company attributes affecting the level of compliance. The level of compliance has been determined by calculating Compliance Index consisting of Disclosures required by Accounting Standards in India. Company attributes like size, age, profitability, leverage, audit firm etc. are considered as explanatory factors. The average compliance has been higher for manufacturing companies (73%) as compared to Service companies (69%). Size, Foreign Listing, Audit firm has been found to be significantly associated with the level of compliance in case of Manufacturing companies whereas only size is significantly associated with level of companies in the case of service companies.

Keywords: accounting standards, company attributes, compliance index, financial reporting

1. Introduction

Financial reporting is the communication of financial information of an enterprise to the external world. Financial information is primarily generated through accounting process. Transparency through better financial disclosures particularly from companies has been consistently demanded by stakeholders. Separation of ownership and management in the corporate form of an organization makes it essential for the mangers to provide adequate and quality information about performance of the company to the shareholders. Disclosure of financial as well as non financial information is essential for reporting performance of an entity. The reporting is done mainly through Annual Report along with other publications like quarterly reports. To standardize the accounting information, business organizations would have to establish certain accounting policies based on Generally Accepted Accounting Principles (GAAP). These differ from country to country, depending upon the accounting standards adopted in that country and legal and regulatory environment.

In India, The Institute of Chartered Accountants of India (ICAI) has constituted the Accounting Standards Board (ASB) to formulate Accounting Standards (AS). While formulating the Accounting Standards, the ASB takes into consideration the applicable laws, customs, usages and business environment prevailing in India. National Advisory Committee on Accounting Standards (NACAS) is a body set up by Government of India which has more or less adopted standards issued by ICAI-ASB.

Considering the importance of disclosures and transparency in financial statements, this study aims at providing empirical evidence on compliance with the disclosure requirements by listed companies in India. We examine the compliance level differences between Manufacturing Sector companies and Service Sector companies. Mandatory disclosures laid down by Accounting Standards are used to construct a questionnaire. Based on the responses, a Compliance Index Score has been computed to determine the score of mandatory disclosures by listed companies. Compliance Index is then associated with company attributes like Size, Profitability, Leverage etc. so as to determine the factors determining a particular level of disclosure score achieved by a company.

2. Related Literature

The abundant literature that is available on disclosure practices investigating a wide range of issues, such as mandatory or voluntary corporate disclosure practices, determinants of voluntary disclosure, determinants of compliance with regulation, the economic consequences of disclosure, GAAP etc.

Following Table 1 provides summary of related studies.

Table 1. List of previous studies

S/N	Author(s) and Year	Country of Study/No. of firms	Independent variables/Dependent Variables	Data Analysis/Results
1	Singhvi (1968)	United states and India 45 Companies	Independent Company size, profitability, number of shareholders, type of management Dependent Weighted disclosure index (34)	Univariate size, shareholders (No.), type of management
2	Buzby(1974)	United States 88 Companies	Independent Company size, listing status Dependent Weighted disclosure index (39)	Univariate and Ranked Correlation Size
3	McNally et al (1982)	New Zealand 103 Companies	Independent Company size, rate of return, growth, audit firm, industry Dependent Weighted disclosure index (41)	Univariate, Kruskal-Wallis, Rank order Correlation Size
4	Cooke(1993)	Japan 48 Companies	Independent Listing status Dependent Unweighted disclosure index (equal weight/dichotomous) (106)	Univariate Size
5	Wallace et al(1994)	Spain 50 Companies	Independent Company size, profitability, listing status, industry, liquidity, audit firm, gearing. Dependent Unweighted disclosure index (equal weight/dichotomous) (79)	Multivariare Rank OLS Regression Size, Listing and Liquidity
6	Rathinam (1996)	India 160 Companies	Independent Age, profitability, asset size, turnover Dependent Unweighted disclosure Index (equal weight/dichotomous) (114)	Ordinary Least Square (OLS)
7	Glaum and Street (2003)	Germany	Independent Company size, Industry type, profitability, multinational, domicile, maturity, growth, growth options, choice, ownership structure, country, listing. Dependent Unweighted disclosure Index (equal weight/dichotomous)	Univariate and Ordinary Least Square (OLS)

3. Data and Methodology

3.1 Sample Selection and Sources of Data

There are approximately 4200 listed non financial companies on Bombay Stock Exchange (BSE). As per BSE, listed companies are classified as A Group, B Group and T Group. Top 200 companies based on Market Capitalization (75%) and Turnover (25%) are classified as A Group companies. Companies whose scripts are traded on trade to trade basic are classified as T Group companies. All other companies are classified as B Group Companies. A sample of 234 non-financial companies (representing proportionate mix of A group. B group and T group companies) has been selected from the companies listed with the Bombay Stock Exchange (BSE). The sample represented about 5 % of the universe. The selected companies are classified into industry type i.e. 157 companies from manufacturing sector and 77 companies service industry. Data related to calculating compliance

index and other variables have been collected from annual reports of the companies for the year ended 31st March 2009. To collect other financial information pronouncements from regulatory bodies have been used.

3.2 Variables

3.2.1 Dependent Variable: Compliance Index

There are 32 accounting standards issued by Institute of Chartered Accountants of India (ICAI), as applicable to the companies as on 31st March 2009. We have selected 29 accounting standards for the purpose of present study since they are mandatory and applicable to all the companies.

A checklist was prepared considering the disclosures required by Accounting Standards. Each item in the checklist was examined with the help of annual report and was assigned 1 if disclosed; and 0 if not disclosed and NA if not applicable.

CI: To compute Compliance Index following formula has been used. Each item of disclosures was given an equal weight age.

$$CI = \frac{Discloaures\ Made}{Disclosures\ Applicable}$$

Following table 2 describes no. of disclosures considered from each Accounting Standards.

Table 2. No. of disclosures considered from each accounting standards

No.	**Name of Accounting Standard**	**No. of Disclosures**
AS-1	Disclosures of accounting policies	2
AS-2	valuation of inventories	3
AS-3	Cash Flow Statements	7
AS-4	Contingencies and Events Occurring After the Balance Sheet Date	2
AS-5	Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies	2
AS-6	Depreciation Accounting	7
AS-7	Construction Contracts	3
AS-8	Research and Development (Withdrawn and included in AS 26)	0
AS-9	Revenue Recognition	2
AS-10	Accounting for Fixed Assets	6
AS-11	The Effects of Changes in Foreign Exchange Rates	6
AS-12	Accounting for government grants	4
AS-13	Accounting for investments	8
AS-14	Accounting for Amalgamations	3
AS-15	Accounting for Employee Benefits	8
AS-16	Borrowing Costs	2
AS 17	Segment reporting	11
AS-18	Related Party Disclosures	2
AS-19	Leases	12
AS-20	Earnings Per Share	7
AS-21	Consolidated Financial Statements	3
AS-22	Accounting for Taxes on Income	3
AS-23	Accounting for Investments in Associates in Consolidated Financial Statements	6
AS-24	Discontinuing Operations	11
AS -25	Interim Financial Reporting	9
AS-26	Intangible Assets	3
AS-27	Financial Reporting of Interests in Joint Ventures	4
AS-28	Impairment of Assets	5
AS-29	Provisions, Contingent Liabilities and Contingent Assets	2
	Total	143

3.2.2 Explanatory Variables and Hypothesis

Followings explanatory variables have been used in the study.

Size:

Larger firms are assumed to be disclosing more information in the annual report. They would be having adequate resources and expert manpower to generate and disseminate information. This is also a costly exercise and large firms may be able to bear the cost. Several studies have also found Size of the firm to be a significant factor affecting disclosures (like Singhvi and Desai, 1971; Belkaoui and Kahl, 1978; McNally et al. 1982; Cooke, 1992).

H 1: Larger Companies have higher level of compliance with Accounting Standards.

Profitability:

The amount of profit generated by the firm also influences disclosures in financial statements. Managers of profitable firms may disclose detailed information in order to support the continuance of their positions and compensation agreements (as pronounced by Agency theory). Several previous studies have reported positive influence of profitability on disclosures (Singhvi and Desai, 1971; Belkaoui and Kahl, 1978; and Wallace et al., 1994).

H2: Companies with larger profits have higher level of Compliance with Accounting Standards.

Leverage:

Firm with higher level of debt are considered to be more risky and they may also incur higher amount of monitoring cost. Adequate disclosure of information in the financial statements may reduce their monitoring cost and also allows creditors to assess risk level of the (Botosan, 1997). Murphy, 1999, Joshi and Mudhahki, 2001 found these variables to be statistically insignificant. The debt equity ratio is used in the present study as measure of leverage and following hypothesis has been formulated.

H 3: Companies with higher level of Leverage have a higher level of Compliance with Accounting Standards.

Age:

We expect older companies to disclose more information in the annual reports since they have adequate resources and matured personnel. They also enjoy goodwill in the market.

H 4: Older companies have higher level of Compliance with Accounting Standards.

Foreign listing:

Foreign listing is considered since at international level disclosure requirements are more qualitative and it makes companies more transparent.

H 5: Companies listed abroad have higher level of compliance to Accounting Standards.

Foreign Ownership:

In case a company has more of a foreign ownership the policy of making disclosures will be at higher rate which may make company more transparent in terms of disclosure requirements.

H 6: Companies with Foreign Ownership have higher level of compliance to Accounting Standards.

Big 4 Audit firm:

Several studies have reported that there is relationship between the types of Auditor and compliance to Accounting Standards. Street and Gray (2001) reported that level of compliance with IAS disclosure were positively associated with company being audited by Big Five Audit firms.

It can be expected that the company audited by international audit firms (Top 4) are more likely to have a higher level of compliance with Accounting Standards than the company audited by other auditors. The study considered PWC, E&Y, KPMG and Deloitte as Top 4 firms based on their revenues and international representation.

H 7: Companies which are audited by Big 4 Audit firms have higher level of compliance with Accounting Standards than other Audit firms.

Following table 3 describes explanatory variables and its computation in brief:

Table 3. Details of explanatory variables

Variable	Proxy	Nature/Formula	Calculation	Expressed as
Size	Net Sales		Log of Net sales	Log (TURN)
Profitability	Net Profit Ratio (NPR)	NPR = Profit after Tax/Net Sales	% of NPR	NPR
Leverage	Debt/Equity Ratio (D/E)	D/E = Debt (Secured +Unsecured)/Equity	% of DE Ratio	D/E
Age	Age of company		Log of Company Age	Log(Age)
Foreign Listing	Listing abroad	Dummy	1 if Listed abroad 0 if not listed abroad	Foreign Listing
Foreign Ownership	% of Foreign Holding	Foreign Ownership/Total Owners' Fund	% of Foreign Ownership	For Own
Big 4 Audit Firm	Audit by Big 4 Audit firm	Dummy	1 if audited by Big 4 0 if audited by others	Big 4 Audit firm

3.3 Formulation of Model

To identify the variable affecting Compliance Index Ordinary Least Square (OLS) regression is used. Following is the description of the Model:

$$CI = \boldsymbol{\beta}_0 + \beta 1\ Log\ TURN + \beta_2\ NPR + \beta 3\ DE + \beta_4\ Log\ AGE + \beta_5\ FOREIGN\ LISTING + \beta_6\ FOR\ OWN + \beta_7\ BIG\ 4\ AUDIT\ FIRM + \varepsilon_j$$

The model has been tested for Overall Sample, Manufacturing Sector Companies and Service Sector Companies.

Where,

$\boldsymbol{\beta}_0$ = regression intercept;

$\boldsymbol{\beta}_{i\ (1to\ 7)}$ = parameters to be estimated and;

ε_j = the error term.

4. Results and Discussion

The collected data has been analysed with the help of following techniques. The software used are MS-Excel Data Analysis and SPSS 17.0.

Following Table 4 describes Compliance Index Score achieved by Companies.

Table 4. Compliance index scores

	Overall Sample	Manufacturing Sector Companies	Service Sector Companies
Average	0.7123	0.7322	0.6923
Maximum	1	1	1
Minimum	0.4567	0.4567	0.4795
Range	0.543	0.543	0.520

Average compliance of overall sample is 71.23%. In case of manufacturing sector Companies compliance score is 73.22 % which is higher than the average score. In case of Service sector companies' average score is less than overall average.

Following table 5 describes Regression results:

Table 5. OLS regression results

	1 Overall Sample (N= 234)		2 Manufacturing Sector Companies (N=157)		3 Service Sector Companies (N=77)	
	Coefficient	t-Stat	Coefficient	t-Stat	Coefficient	t-Stat
Intercept	0.724385403	15.98711	0.739494	12.52581	0.679959	9.221142
Log (TURN)	0.037480788	4.231084*	0.038398	3.520988*	0.034767	2.222162*
NPR	-0.000005208	-0.53901	0.008846	0.777336	-4.5E-06	-0.49324

D/E	-0.000309681	-0.58793	0.006463	0.892854	-0.00031	-0.58992
Age	0.001659177	0.052228	-0.01421	-0.34915	0.033938	0.64597
Foreign Listing	0.0829563	2.249649*	0.096184	2.414076*	0.104304	1.370316
FOR Own	-0.000381469	-0.65516	-0.0006	-0.83684	-0.00017	-0.16758
Big 4 Audit firm	0.057064246	2.362384*	0.050521	1.78773**	0.083935	1.353916
R Square	0.163920905		0.172722		0.215739	
F	6.329908		4.4441		2.711567	
Significance F	0.000000846		0.000163		0.015235	

Note. * Significance at 5% level; **Significance at 10% level.

From Table 5 it can be observed that Compliance Score achieved by the firm is largely affected by Size of the firm, its listing at foreign stock exchange and Big 4 auditors. This implies that larger firms generally disclose more information because they can bear the cost of disclosure and also because they are generally followed by analyst. Firms listed aboard are also found to be disclosing more information which may be possible due to the fact that they have to comply with various rules and regulations of different stock exchange. Firms audited by big 4 auditors are also disclosing more information due to the expertise and reputation of auditors.

When we split the sample into manufacturing sector companies and service sector companies we observe that results are consistent for manufacturing sector companies however in case of service sector companies only size is found to be significantly affecting compliance level.

5. Conclusion

Average compliance of overall sample has been found to be only 71% (with SD 22.41%), and minimum compliance is 46%. If for listed companies, Compliance level is this low, for unlisted companies it is likely to be much lower. For Manufacturing Sector Companies, Size (Turnover), Big 4 Audit firm and Foreign Listed firm have been found significant. For Service Sector Companies only Size has been found significant. Findings of the study may be of help to regulators while framing the policies related to financial reporting. It can act as feedback for them to assess the level of mandatory compliance by listed companies. It can also be used by analyst to study factors driving companies towards more compliance.

Although the study raises an important issue of complying with disclosures requirements the results are limited to the sample selected for the study. There is scope for taking this research ahead by increasing sample size, considering voluntary and non-financial information disclosure from the annual report to ascertain level of compliance and disclosures.

References

Belkaoui, A., & Kahl, A. (1978). *Corporate Financial Disclosures in Canada*. Research Monograph of the Canadian Certified General Accountants Association, Vancouver.

Botosan, C. (1997). Disclosure Level and Cost of Equity Capital. *The Accounting Review, 72*(July), 323–349.

Buzby, S. L. (1974). Selected items of Information and their Disclosure in Annual Reports. *The Accounting Review, 49*(3), 423–435.

Cooke, T. E. (1992). The Impact of Size, Stock Market Listing and Industry Type on the Disclosure in the Annual Reports of Japanese Listed Corporations. *Accounting and Business Research, 22*(Summer), 229–237. http://dx.doi.org/10.1080/00014788.1992.9729440

Cooke, T. E. (1993). Disclosure in Japanese corporate annual reports. *Journal of Business Finance & Accounting, 20*(4), 521–535. http://dx.doi.org/10.1111/j.1468-5957.1993.tb00272.x

Glaum, M., & Street, D. (2003). Compliance with the disclosure requirement of German's new market, IAS Versus US GAAP. *Journal of International Financial Management and Accounting, 14*(1), 64–100. http://dx.doi.org/10.1111/1467-646X.00090

Joshi, P. L., & Mudhahki, J. A. (2001). Empirical Study of Compliance with International Accounting Standards (IAS-1) by Sock Exchange Listed Companies in Bahrain. *Journal of Financial Management and Analysis, 14*(2), 43–54.

McNally, G. M., Eng, L. H., & Hasseldine, C. R. (1982). Corporate Financial Reporting in New Zealand: An Analysis of User Preferences, Corporate Characteristics and Disclosure Practices for Discretionary

Information. *Accounting and Business Research*, Winter, 11–20. http://dx.doi.org/10.1080/00014788.1982.9729725

Murphy, A. B. (1999). Firm Characteristics of Swiss Companies that Utilize IAS. *International Journal of Accounting, 34*(1), 121–130. http://dx.doi.org/10.1016/S0020-7063(99)80006-5

Rathinam, B. I. (1996). *Corporate disclosures Practices in India*. Doctoral Dissertation, University of Madras.

Singhvi, S. S. (1968). Corporate disclosure through annual reports in the United States of America and India. *The Journal of Finance, 23*(3), 551–552.

Singhvi, S. S., & Desai, H. B. (1971). An Empirical Analysis of the Quality of Corporate Financial Disclosure. *The Accounting Review*, January, 129–138.

Street, D. L., & Gray, S. (2001). Factors Influencing the Extent of Corporate Compliance with International Accounting Standards: Summary of a Research Monograph. *Journal of international Accounting Auditing and Taxation, 11*, 51–76. http://dx.doi.org/10.1016/S1061-9518(02)00054-X

Wallace, R. S. O., Naser, K., & Mora, A. (1994). Relationship between the Comprehensiveness of Corporate Annual Reports and Firm Characteristics in Spain. *Accounting and Business Research, 25*(97), 41–53. http://dx.doi.org/10.1080/00014788.1994.9729927