

# Financial Reporting by Indian Companies: Compliance with Accounting Standards

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# Publications

## Textbook

- *“Financial Accounting - A Managerial Perspective”*, by Varadraj Bapat and Mehul Raithatha published by **Tata McGraw Hills Publishing**, Delhi. (ISBN: 9781259004889)

## Journals - International

### • Accepted

- Raithatha Mehul and Bapat Varadraj (2013), "A Panel Data Analysis of Corporate Attributes and Stock Prices for Indian Manufacturing Sector", *Journal of Modern Accounting and Auditing*. (ISSN: 1548-6583). **(Rated as “C” as per Australian Business Dean Council (ABDC))**

### • Published

- Raithatha Mehul and Bapat Varadraj (2013), " Corporate Disclosures in Financial Statements and its Determinants: An Empirical Study", *The journal, Academy of Taiwan Business Management Review*, Vol 9, No 2, Aug 2013. (ISSN is 1813-0534). **(Rated as “B” as per Australian Business Dean Council (ABDC))**
- Raithatha Mehul and Bapat Varadraj (2012), "Corporate Governance Compliance Practices of Indian Companies", *Research Journal of Finance and Accounting*, Vol 3, No 8, 2012. (ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online)) (IC Impact factor 6.26)

## Journal – Indian

- Bapat Varadraj and Raithatha Mehul (2012), "Off Balance Sheet Disclosures: A Comparison between Indian and US Companies", *Indian Journal of Finance*, May. (ISSN 0973-8711) (IC Impact factor 5.09)
- Bapat Varadraj and Raithatha Mehul (2010), "An Empirical Study of Disclosure Practices in Listed Non-Financial Indian Companies", *Prabandhan- Indian Journal of Management*, June. (ISSN 0975-2854) (IC Impact factor 5.09)
- Bapat Varadraj and Raithatha Mehul (2010), "Corporate Transparency through Implementation of Indian Accounting Standards", *International Journal of Management Prudence*, March.( ISSN: 0975-6671)
- Bapat Varadraj and Raithatha Mehul (2010), "Corporate Governance Models and Practices: An International Cross Cultural Comparison," *IMS Management Journal*, January (ISSN- 0975-0800)

# Flow of Presentation

- Introduction
- Motivation of the study
- Objectives of the study
- Literature review
- Data and methodology
- Empirical models
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- Conclusion
- Limitations of the study
- Further research directions

# Introduction

- Transparency through better financial disclosures has been consistently demanded by **stakeholders**, particularly from corporate world.
- Disclosure of financial as well as non financial information is essential for **reporting performance** of an entity.
- Growing size of corporations, increasing capital requirements, and internationalisation of capital markets are giving rise to **new challenges** in disclosure practices.

- Due to separation of ownership and management in corporations, managers may consider their own interest at the cost of stakeholder's interest. (**Agency theory**).
- The Asian Financial Crisis of 1997 and the Enron debacle in the U.S are few important examples.
- Regulators and policy makers calls for improved corporate transparency, increased scrutiny and often enacts significant changes to accounting and disclosure requirements.
- Financial crises and corporate scandals often bring about securities regulation reforms and greater reporting and disclosure requirements.

# Financial Disclosure through GAAP

- 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, every organization would have to establish certain accounting policies based on Generally Accepted Accounting Principles (GAAP).
- GAAP is a common set of accounting principles, standards and procedures that are use to record financial information and compile financial statements.

# Accounting Standards – An Indian GAAP

- 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.
- Accounting Standards contain the principles governing accounting practices and determine the appropriate disclosures required to be made in financial statements which are published in annual reports.
- Accounting standards require mandatory disclosure i.e. the minimum standard of disclosures required to be made in financial statements published in corporate annual reports.



# Motivation of the Study

- The empirical research on compliance with AS has been largely focused on developed countries. Studies conducted for developing countries have been limited.
- Despite regulatory requirements, the quality of disclosure continues to be poor. Indian annual reports were lagging behind their foreign counterparts with respect to disclosures (Shankar (1972), Sheshan and Gujarathi (1980), Vashal (2006)).
- A Study on Compliance of Financial Reporting Requirements conducted by FRRB (ICAI) has also identified several instances of non-compliance with GAAP.

- Corporate attributes or characteristics have been used for explaining the level of disclosure in the corporate annual report (Cerf (1961), Wallace et. al., (1994)).
- Identifying factors leading to such disclosures will help not only the policy makers for framing appropriate policy but also the investors, analysts, portfolio managers and lenders for ascertaining the quality of reporting by corporate.
- The regulatory institutions (e.g. SEBI and ICAI) would be interested in extent of compliance and factor affecting lower level of compliance (if any).
- They will be in a better position to take remedial actions if the studies identify level of disclosures and factors affecting it.

# Objectives of the study

- To examine the **level of compliance** with mandatory **disclosure requirements** of the accounting standards.
- To identify the relationship between the level of disclosure compliance and the key **financial parameters** like size, profitability and leverage.
- To recognize the relationship of the level of disclosure compliance with **company characteristics** like age, foreign ownership, foreign listing, audit firm and listing category.
- To determine the compliance level for each accounting standards.

# Literature Review

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  <b>45 Companies</b>	<u>Independent</u> Company size, profitability, number of shareholders, type of management <u>Dependent</u> Weighted disclosure index (34)	Univariate  <b>size, shareholders (No.), type of management</b>
2	Singhvi and Desai(1971)	United states  <b>155 Companies</b>	<u>Independent</u> Company size, listing status, profitability, audit firm, number of shareholders <u>Dependent</u> Weighted disclosure index (34)	Univariate and Linear Regression  <b>Listing status</b>
3	Buzby(1975)	United States  <b>88 Companies</b>	<u>Independent</u> Company size, listing status <u>Dependent</u> Weighted disclosure index (39)	Univariate and Ranked Correlation  <b>Size</b>

4	Firth (1979)	United Kingdom <b>180 Companies</b>	<u>Independent</u> Company size, listing status, audit firm <u>Dependent</u> Weighted disclosure index (48)	Univariate <b>Size, listing status</b>
5	McNally et al (1982)	New Zealand <b>103 Companies</b>	<u>Independent</u> Company size, rate of return, growth, audit firm, industry <u>Dependent</u> Weighted disclosure index (41)	Univariate, Kruskal-Wallis, Rank order Correlation <b>Size</b>
6	Chow and Wong-Boren (1987)	Mexico <b>52 Companies</b>	<u>Independent</u> Company size, financial leverage, assets in place. <u>Dependent</u> Weighted and unweighted disclosure index. (24)	Univariate, Bivariate Correlation and Multiple Regression <b>Size</b>
7	Cooke(1993)	Japan <b>48 Companies</b>	<u>Independent</u> Listing status <u>Dependent</u> Unweighted disclosure index (equal weight/dichotomous) (106)	Univariate <b>Size</b>

Wallace et al(1994)	Spain  <b>50 Companies</b>	<u>Independent</u> Company size, profitability, listing status, industry, liquidity, audit firm, gearing. <u>Dependent</u> Unweighted disclosure index (equal weight/dichotomous) (79)	Multivariate Rank OLS Regression  <b>Size, Listing and Liquidity</b>
Meek et al(1995)	UK, US, France, Germany, Netherlands  <b>116 Companies</b>	<u>Independent</u> Company size, profitability, country origin, listing status, industry, leverage, multinationality. <u>Dependent</u> Unweighted disclosure index (equal weight/dichotomous) (85)	Linear Regression models  <b>size, country origin listing status</b>
Ferguson, Lam and Lee(2002)	Hong Kong  <b>142 Companies</b>	<u>Independent</u> Firm type (Local, H-Share, Red chip), Industry type, firm size, leverage, multiple listing. <u>Dependent</u> Unweighted disclosure Index (93) (equal weight/dichotomous)	Univariate and Linear OLS Regression  Firm type, leverage

Eng and Mak(2003)	Singapore	<p><u>Independent</u> Managerial ownership, government ownership, proportion of outside directors, size, leverage, growth, industry, audit firm, analyst, profitability.</p> <p><u>Dependent</u> Weighted disclosure Index</p>	OLS Regression
Glaum and Street (2003)	Germany	<p><u>Independent</u> Company size, Industry type, profitability, multinational, domicile, maturity, growth, growth options, choice, ownership structure, country, listing.</p> <p><u>Dependent</u> Unweighted disclosure Index (equal weight/dichotomous)</p>	Univariate and Ordinary Least Square (OLS)
Rathinam (1996)	India  160 Companies	<p><b>Independent</b> Age, profitability, asset size, turnover</p> <p><u>Dependent</u> Unweighted disclosure Index (equal weight/dichotomous) (114)</p>	Ordinary Least Square (OLS)

# What do we contribute to literature?

- Comprehensive Index covering all disclosure requirement of Accounting Standards (Indian GAAP).
- Examining Annual Report of sample of 500 listing companies (10 %) thoroughly to assign disclosure score.
- Companies selected from India (one of the largest emerging economy).
- Identifying possible factors affecting Disclosure Level (Company attributes).
- Recommendations to Regulatory Authorities about the level of disclosures and factor affecting them.



# Data

- The data for the study has been collected from Annual reports of company for the year ended 31<sup>st</sup> March 2010.
- Annual Report is considered most authentic source of information as it is certified by directors, auditors and submitted to legal authorities.
- In order to extract the information items, all areas (financial and non-financial) of the annual reports were considered.

# Sample

- The study focuses on Indian companies.
- In India, companies are listed with multiple stock exchanges. Companies listed with Bombay Stock Exchanges (BSE) are chosen for study as BSE is the oldest in Asia (established in 1875) and one of the leading stock exchanges in India.
- There are 5000 listed companies on BSE.
- A random sample of 500 companies was selected from the companies listed on the BSE.
- The sample represented about 10% of the population.

# Sample Characteristics

## Sample Listed Companies (500)

On the Basic of Age	Less Than 20	179	On the basic of Industry	Manufacturing	336
	20 to 50	232		Service	164
	50 and above	89		<b>Total</b>	<b>500</b>
	<b>Total</b>	<b>500</b>			
On the basic of Audit	Big 4	87	On the basic of Listing category (as per BSE)	A Group	40
	Non Big 4	413		B Group	283
	<b>Total</b>	<b>500</b>		T Group	177
On the Basic of Listing	Listed Abroad And India	33		<b>Total</b>	<b>500</b>
	Listed only in India	467			
	<b>Total</b>	<b>500</b>			

# Disclosure Questionnaire/Index

- There are 29 mandatory Accounting Standards (AS), as applicable to the companies as on 31<sup>st</sup> March 2010.
- On the basis of disclosures requirements of each AS a questionnaire consisting of 149 items of disclosures has been prepared.

<b>No.</b>	<b>Name of Standard</b>	<b>No. of disclosures</b>
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	8
	<b>TOTAL</b>	<b>149</b>

# Method of Calculating Disclosure Score

- Disclosure Score is computed using Unweighted approach and each item of disclosure is given equal important.
- Unweighted approach reduces subjectivity and it provides a neutral assessment of items.
- On the questionnaire, each item is given equal weightage and coded as **1 if disclosed; and 0 if not disclosed and NA if not applicable.**
- **Disclosure Score (DS)** : Disclosure Score has been computed by dividing total no. of disclosures made with total no. of disclosures applicable.

$$DS = \frac{\text{Total No. of Disclosures made}}{\text{Total Disclosures – Disclosures Not Applicable}}$$

## Example – AS 19 Leases

AS provides following disclosures for Financial Lease

*22. The lessee should, in addition to the requirements of AS 10, Accounting for Fixed Assets, AS 6, Depreciation Accounting, and the governing statute, make the following disclosures for finance leases:*

- (a) assets acquired under finance lease as segregated from the assets owned;*
- (b) for each class of assets, the net carrying amount at the balance sheet date;*
- (c) a reconciliation between the total of minimum lease payments at the balance sheet date and their present value. In addition, an enterprise should disclose the total of minimum lease payments at the balance sheet date, and their present value, for each of the following periods:*
  - (i) not later than one year;*

- (ii) later than one year and not later than five years;*
  - (iii) later than five years;*
- (d) contingent rents recognised as expense in the statement of profit and loss for the period;*
- (e) the total of future minimum sublease payments expected to be received under non-cancellable subleases at the balance sheet date; and*
- (f) a general description of the lessee's significant leasing arrangements including, but not limited to, the following:*
  - (i) the basis on which contingent rent payments are determined;*
  - (ii) the existence and terms of renewal or purchase options and escalation clauses; and*
  - (iii) restrictions imposed by lease arrangements, such as those concerning dividends, additional debt, and further leasing.*



## AS 19 Leases (Disclosures considered in our questionnaire)

<b>AS-19</b>	<b>Leases</b>	1/0/NA
	<b>Financial Lease:</b>	
<b>96</b>	Has assets acquired under finance lease as segregated from the assets owned disclosed?	
<b>97</b>	Whether for each class of assets, the net carrying amount at the balance sheet date is been disclosed?	
<b>98</b>	Whether a reconciliation between the total of minimum lease payments at the balance sheet date and their present value been disclosed?	
<b>99</b>	Whether the total of minimum lease payments at the balance sheet date, and their present value disclosed, for each of the following periods:	
	(i) Not later than one year?	
	(ii) later than one year and not later than five years?	
	(iii) Later than five years?	
<b>100</b>	Whether rents recognised as expense in the statement of profit and loss for the period disclosed?	
<b>101</b>	Has the total of future minimum sublease payments expected to be received under non cancellable subleases at the balance sheet date disclosed?	
	A general description of lessee's significant leasing arrangements including, but not limited to, the following:	
<b>102</b>	the basis on which contingent rent payments are determined.	
<b>103</b>	The existence and terms of renewal or purchase options and escalation clauses.	
<b>104</b>	restrictions imposed by lease arrangements, such as those concerning dividends, additional debt, and further leasing.	

Example- AS 11 The Effects of Changes in Foreign Exchange Rates  
AS provides following disclosures

- (a) the amount of exchange differences included in the net profit or loss for the period; and*
- (b) net exchange differences accumulated in foreign currency translation reserve as a separate component of shareholders' funds, and a reconciliation of the amount of such exchange differences at the beginning and end of the period.*

*41. When the reporting currency is different from the currency of the country in which the enterprise is domiciled, the reason for using a different currency should be disclosed. The reason for any change in the reporting currency should also be disclosed.*

*42. When there is a change in the classification of a significant foreign operation, an enterprise should disclose:*

- (a) the nature of the change in classification;*
- (b) the reason for the change;*
- (c) the impact of the change in classification on shareholders' funds; and*
- (d) the impact on net profit or loss for each prior period presented had the change in classification occurred at the beginning of the earliest period presented.*

43. The effect on foreign currency monetary items or on the financial statements of a foreign operation of a change in exchange rates occurring after the balance sheet date is disclosed in accordance with AS 4, Contingencies and Events Occurring After the Balance Sheet Date.

44. Disclosure is also encouraged of an enterprise's foreign currency risk management policy.

## AS 11 Disclosures in our Questionnaire

AS-11	The Effects of Changes in Foreign Exchange Rates	1/0/NA
35	Whether the amount of exchange differences included in the net profit or loss for the period is disclosed?	
36	Whether net exchange differences accumulated in foreign currency translation reserve as a separate component of shareholders' funds, and a reconciliation of the amount of such exchange differences at the beginning and end of the period disclosed?	
37	Whether change in the classification of a significant foreign operation, an enterprise should disclose:	
	(a) the nature of the change in classification;	
	(b) the reason for the change;	
(c) the impact of the change in classification on shareholders'?		
38	Whether the contingent liability denominated in foreign currency at the balance sheet date is disclosed by using the closing rate?	
39	When the reporting currency is different from the currency of the country in which the enterprise is domiciled, the reason for using a different currency should be disclosed. The reason for any change in the reporting currency should also be disclosed.	
40	Whether an enterprise's foreign currency risk management policy is disclosed?	

## Method of Calculating Disclosure Score

- Disclosure Score is computed using Unweighted approach and each item of disclosure is given equal important.
- Unweighted approach reduces subjectivity and it provides a neutral assessment of items.
- On the questionnaire, each item is given equal weightage and coded as **1 if disclosed; and 0 if not disclosed and NA if not applicable.**
- **Disclosure Score (DS)** : Disclosure Score has been computed by dividing total no. of disclosures made with total no. of disclosures applicable.

$$\text{DS} = \frac{\text{Total No. of Disclosures made}}{\text{Total Disclosures} - \text{Disclosures Not Applicable}}$$

## AS 11 and 19 Disclosures Scores

<b>No.</b>	<b>Name of Standard</b>	<b>Disclosures by Companies</b>
AS- 11	The Effects of Changes in Foreign Exchange Rates	64.12%
AS- 19	Leases	52.90%

# Company Attributes as Independent/Explanatory Variables

Variable	Proxy	Nature/Formula	Calculation	Expressed as
Size (Turnover)	Net sales		Log of Net sales	Log (TURN)
Size (Total Assets)	Total Assets (TA)	TA = Fixed Assets + Investments + Current Assets	Log of Total Assets	Log (TA)
Size (Listing Status)	Listing Category as per BSE (A, B or T)	Dummy	1 if A or B Group 0 if T Group	Listing Category
Profitability	Net Profit ratio (NPR)	NPR = Profit after Sales/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	Dummy	1 if more than 24% of foreign ownership 0 if less than 24 % of foreign ownership	For Own
Big 4 Audit firm	Audit by Big 4 Audit firm	Dummy	1 if audit by Big 4 0 if audit by others	Big 4 Audit firm

Hypothesis	Measure	Expected Sign
H <sub>1</sub>	size	+
H <sub>2</sub>	Profitability	+
H <sub>3</sub>	Leverage	+
H <sub>4</sub>	Age	+
H <sub>5</sub>	Foreign Listing	+
H <sub>6</sub>	Foreign Ownership	+
H <sub>7</sub>	Companies audited by Big 4 Audit firm	+



# Formulation of Model

- In order to determine the effect of company characteristics on compliance with OLS Regression technique is used.

## MODEL

- $CI = \alpha + \beta_1 \text{SIZE} + \beta_2 \text{NPR} + \beta_3 \text{DE} + \beta_4 \text{AGE} + \beta_5 \text{FOREIGN LISTING} + \beta_6 \text{BIG 4 AUDIT FIRM} + \varepsilon_j$

$\beta_0$  = regression intercept;

$\beta_{i(1\text{to }7)}$  = parameters to be estimated and

$\varepsilon_j$  = the error term.

# Statistical Tools for Data Analysis

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

- **Multiple Linear regressions**
- **Correlation Analysis**
- **Collinearity diagnosis**

# Results and Discussions- DS

	<i>CI</i>	<i>Big Audit Firm Y/N</i>	<i>NPR</i>	<i>Turnover (Rs. Cr.)</i>	<i>D/E Ratio</i>	<i>For Own</i>	<i>Foreign Listing</i>	<i>Listing Category</i>	<i>Age</i>
Mean	0.714341	0.0786026	0.2146547	1368.6639	4.9727	4.2016	0.043	0.5982	30.0917
Standard Deviation	0.224096	0.2697070	0.8482682	8052.9018	20.502	11.711	0.204	0.4913	19.6624
Range	0.5351851	1	7.9691888	109232.2	66.012	87.92	1	1	117
Minimum	0.4648148	0	-1.08	0.00525	0.998	0	0	0	2
Maximum	1	1	6.8891888	109232.24	67.01	87.92	1	1	119
Count	500	500	500	500	500	500	500	500	500

# Multicollinearity diagnostics – VIF analysis

Coefficients<sup>a</sup>

Model		Collinearity Statistics	
		Tolerance	VIF
1	TURN	.766	1.305
	NPR	.995	1.005
	DE	.962	1.040
	AGE	.939	1.065
	AUDITFIRM	.759	1.318
	FORLIST	.879	1.138
	FOROWN	.896	1.116
	LISTCATE	.818	1.222

a. Dependent Variable: CI

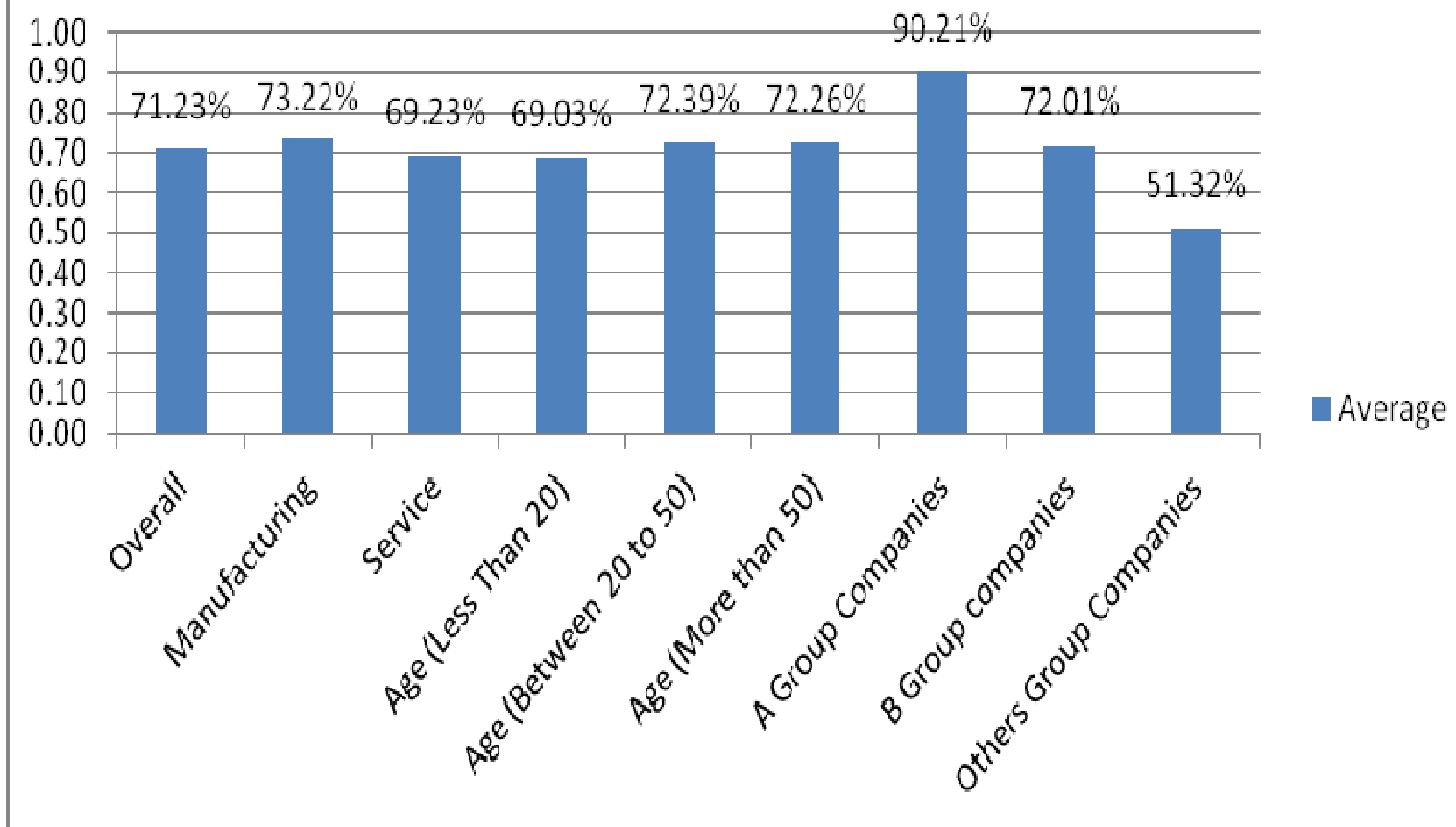
# Results and Discussions

## Level of Disclosure

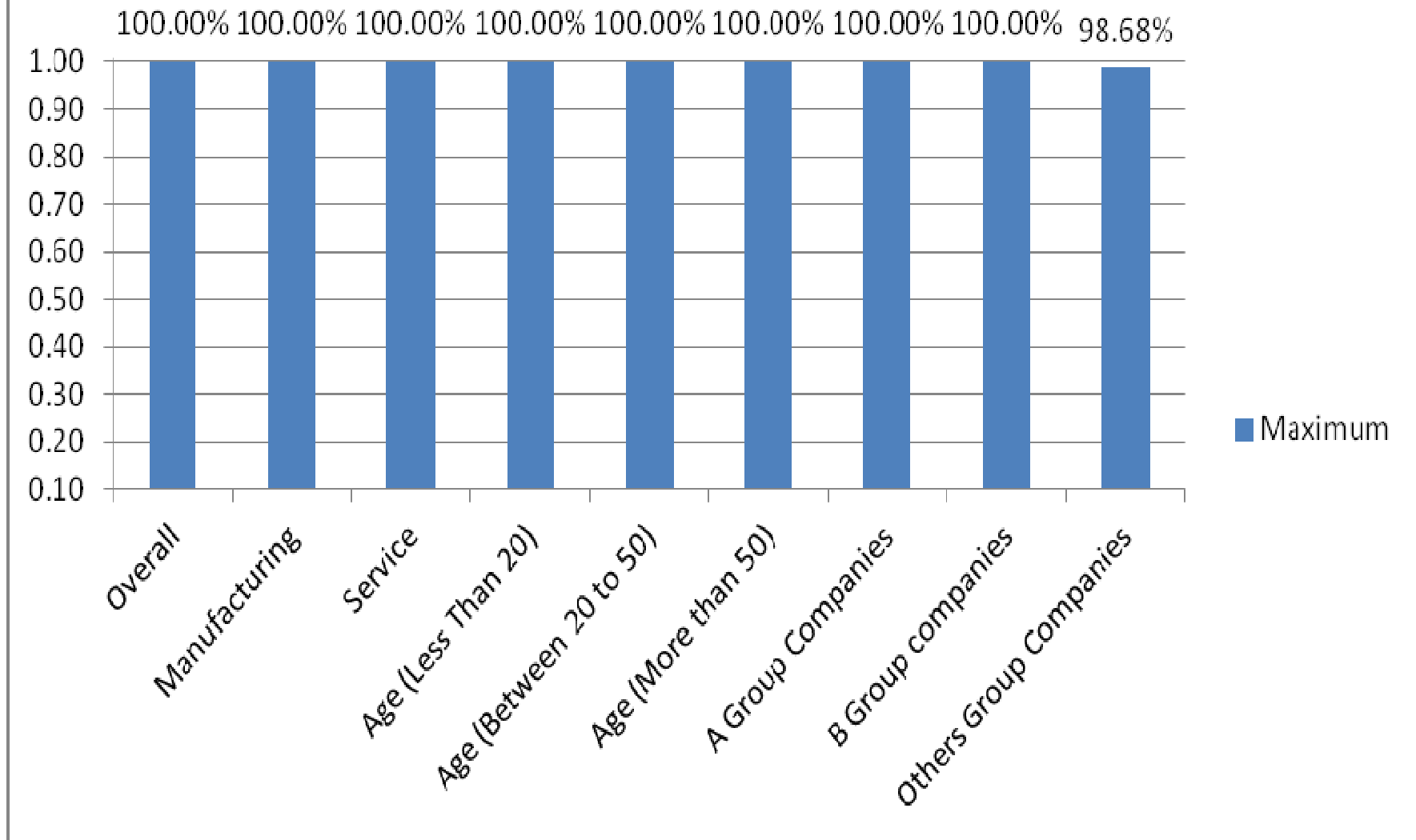
## Mean and Range of Disclosure Scores

	Overall	Mfg.	Service	Age (Less Than 20)	Age (Between 20 to 50)	Age (More than 50)	A Group Companies	B Group companies	T Group Companies
Avg.	0.7123	0.7322	0.6923	0.6903	0.7239	0.7226	0.9021	0.7201	0.5132
Max.	1	1	1	1	1	1	1	1	0.9868
Min.	0.4567	0.4567	0.4795	0.4638	0.4567	0.5263	0.7204	0.5012	0.4567
Range	0.543	0.543	0.520	0.536	0.543	0.473	0.279	0.498	0.530

## Average Disclosure Score

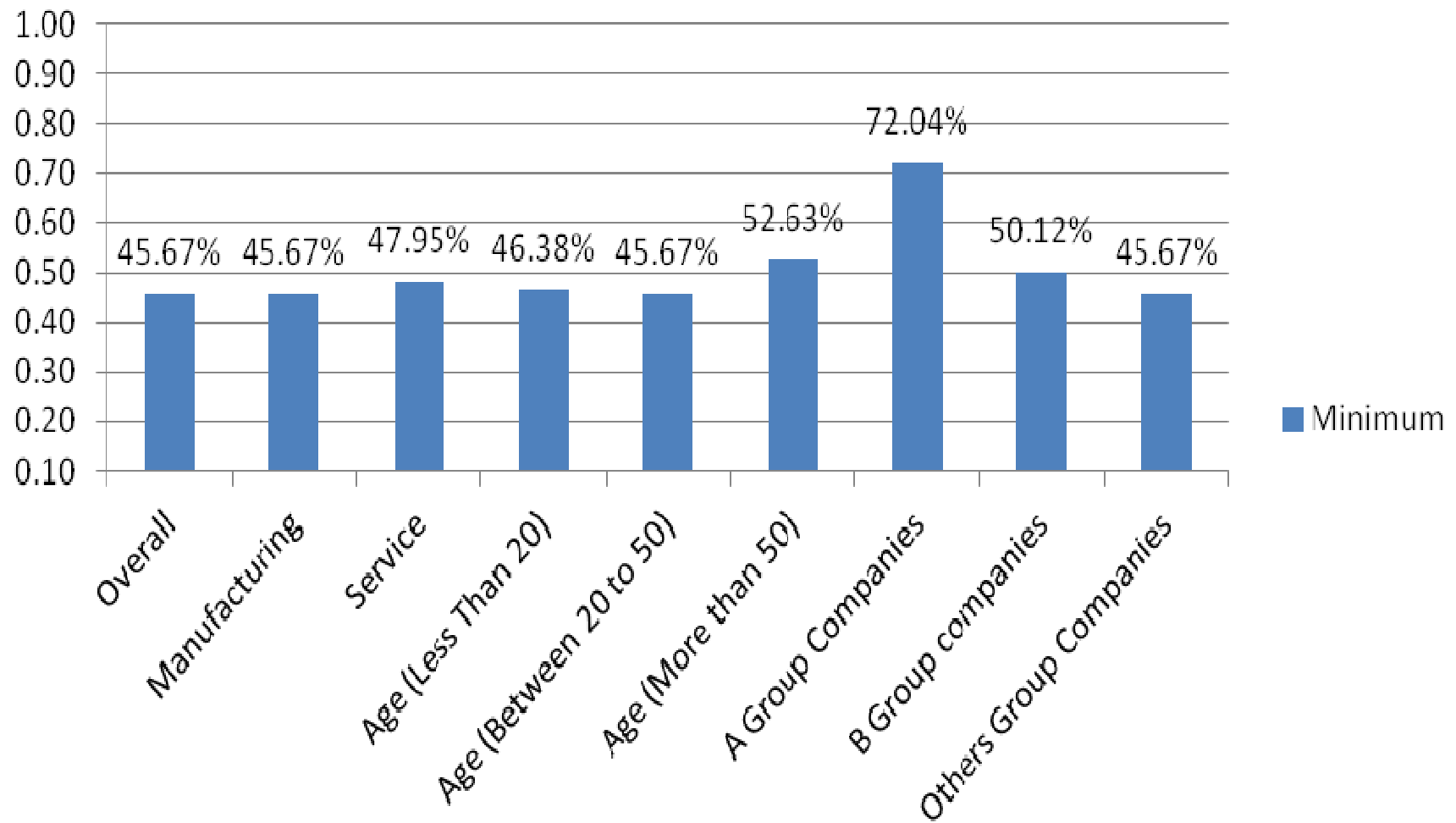


## Maximum Disclosure Score



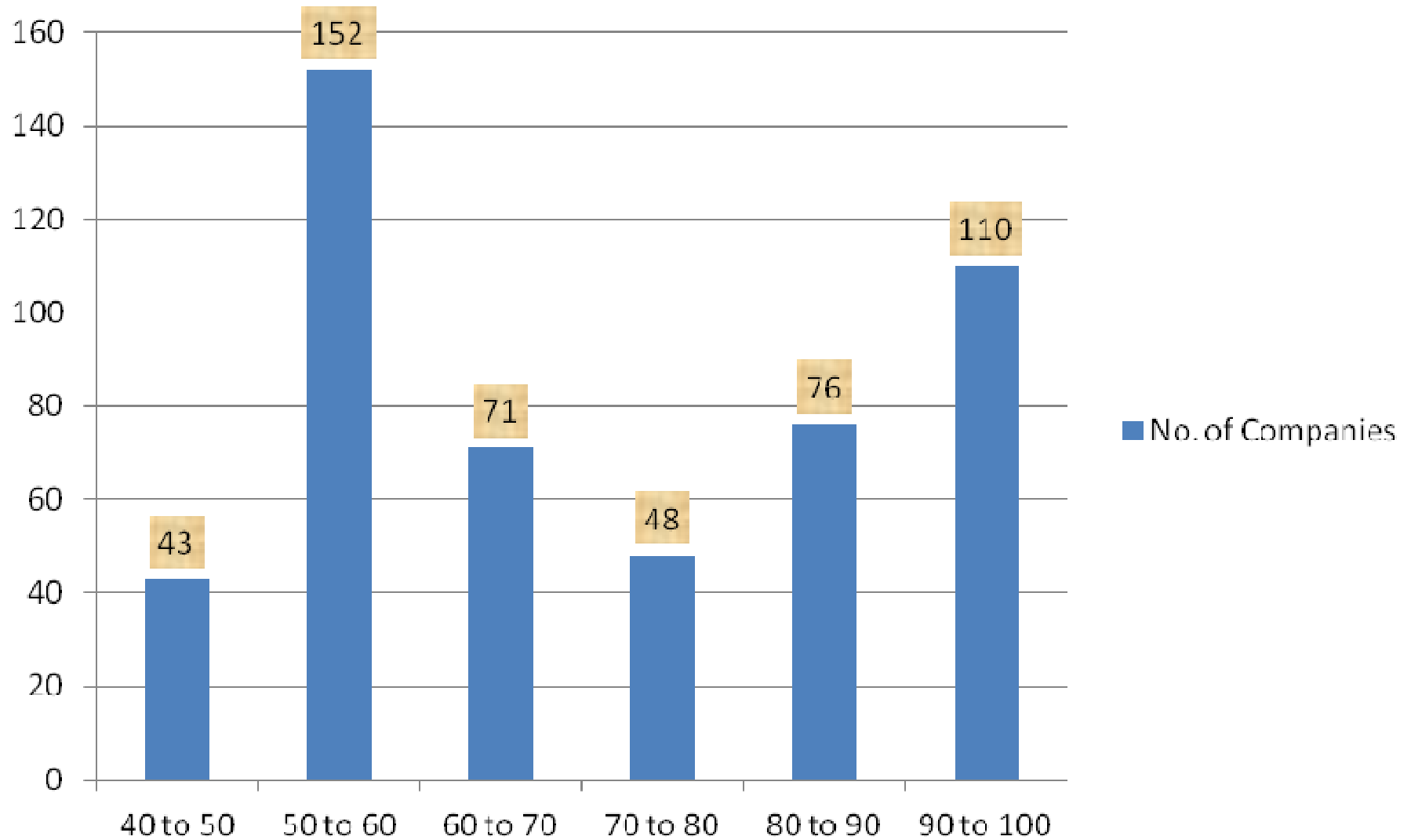


## Minimum Disclosure Score



<b>Compliance Score Range</b>	<b>No. of Companies</b>	<b>% of Total</b>
40 to 50	43	8.60%
50 to 60	152	30.40%
60 to 70	71	14.20%
70 to 80	48	9.60%
80 to 90	76	15.20%
90 to 100	110	22.00%
	<b>500</b>	<b>100.00%</b>

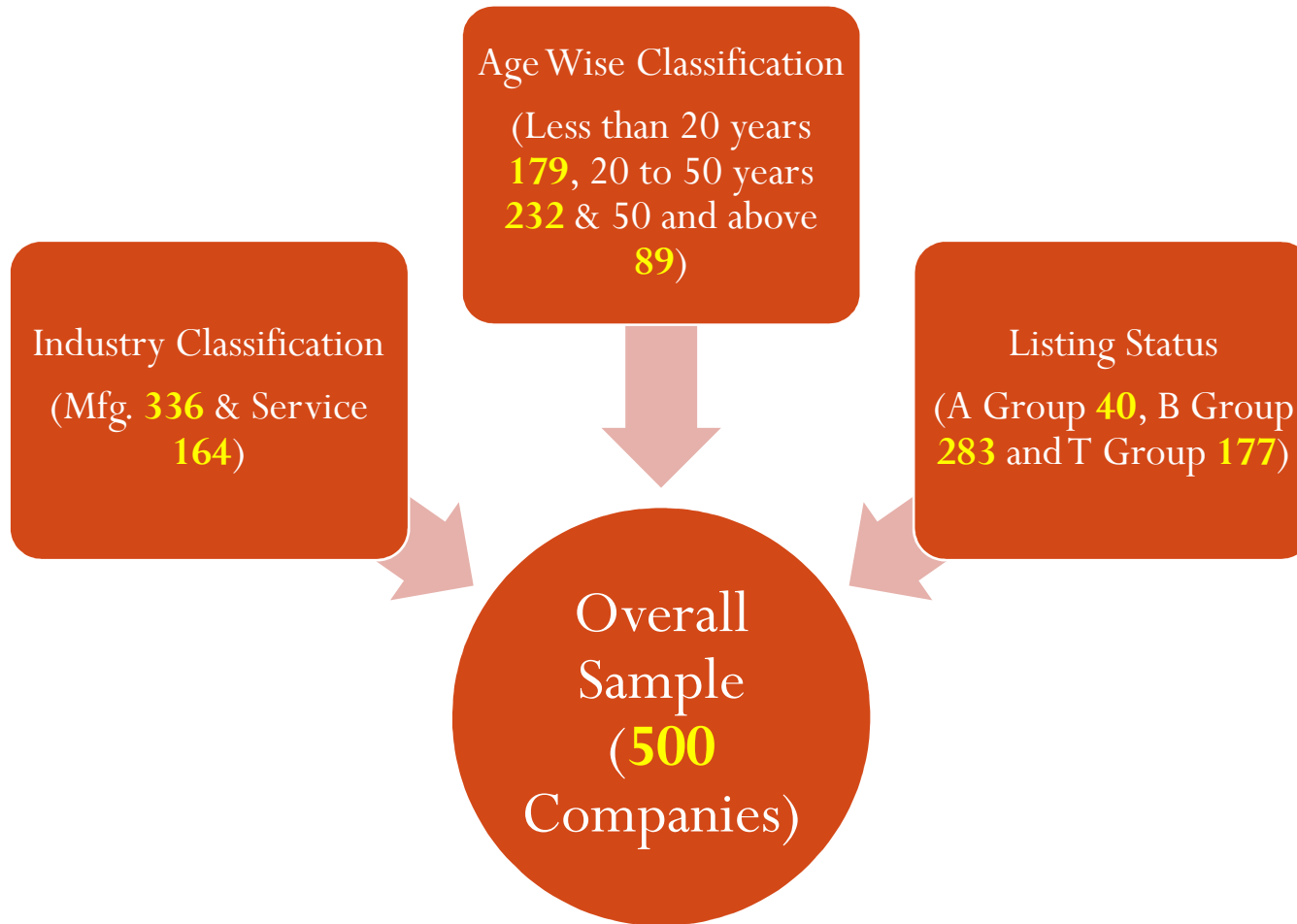
## No. of Companies



# Results and Discussions

## Effect of Corporate Attributes on Disclosures

# Regression Analysis



## Regression Results: All Companies - Model 1

<i>Regression Statistics</i>	
R Square	0.0891
Adjusted R Square	0.0751
Observations	500

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	6.3611	0
Residual	492		
Total	499		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.6816	15.9104	0
<b>Log (TURN)</b>	0.0286	<b>3.9812</b>	0.0001
NPR	0	-0.1451	0.8847
D/E	0	0.3262	0.7444
Log(Age)	0.0142	0.4731	0.6364
<b>Big 4 Audit firm</b>	0.0629	<b>2.5738</b>	0.0104
<b>Foreign Listing</b>	0.0684	<b>1.971</b>	0.0493
For Own	-0.0452	-1.244	0.2141

## Regression Results: All Companies - Model 2

<i>Regression Statistics</i>	
	0.0827
Adjusted	0.0686
Observations	500

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	5.8584	0.0000
Residual	492		
Total	499		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.6647	14.9956	0.0000
<b>Listing Category</b>	0.0673	<b>3.5402</b>	0.0004
NPR	0.0000	0.0552	0.9560
D/E	0.0000	0.4147	0.6785
Log(Age)	0.0361	1.2124	0.2260
<b>Big 4 Audit firm</b>	0.0644	<b>2.6203</b>	0.0091
<b>Foreign Listing</b>	0.0770	<b>2.2204</b>	0.0269
For Own	-0.0387	-1.0623	0.2887

## Regression Results: Manufacturing Companies - Model 1- Turnover

<i>Regression Statistics</i>	
	0.1382
Adjusted	0.1198
Observations	336

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	7.5152	0.0000
Residual	328		
Total	335		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.7112	14.8482	0.0000
<b>Log (TURN)</b>	0.0261	<b>3.4584</b>	0.0006
NPR	0.0150	1.4821	0.1393
D/E	-0.0001	-0.2626	0.7930
Log(Age)	-0.0061	-0.1903	0.8492
<b>Big 4 Audit firm</b>	0.0909	<b>3.7395</b>	0.0002
<b>Foreign Listing</b>	0.0817	<b>2.1447</b>	0.0327
For Own	-0.0682	-1.8586	0.0640



## Regression Results: Manufacturing Companies - Model 2- Total Assets

<b>Regression Statistics</b>	
	0.1436
Adjusted	0.1165
Observations	336

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	5.2930	0.0000
Residual	328		
Total	335		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.8727	36.6929	0.0000
<b>Log (Total Assets)</b>	0.0068	<b>2.0208</b>	0.0445
NPR	0.0031	0.7044	0.4819
D/E	-0.0003	-0.8481	0.3973
Log(Age)	-0.0128	-0.8137	0.4167
<b>Big 4 Audit firm</b>	0.0278	<b>2.3237</b>	0.0211
<b>Foreign Listing</b>	0.0632	<b>3.6710</b>	0.0003
For Own	-0.0224	-1.1361	0.2571

## Regression Results: Manufacturing Sector Companies - Model 3

<i>Regression Statistics</i>	
	0.1508
Adjusted	0.1327
Observations	336

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	8.3226	0.0000
Residual	328		
Total	335		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.6959	14.4821	0.0000
<b>Listing Category</b>	0.0804	<b>4.1242</b>	0.0000
NPR	0.0125	1.2497	0.2123
D/E	-0.0002	-0.3236	0.7465
Log(Age)	0.0087	0.2720	0.7858
<b>Big 4 Audit firm</b>	0.0837	<b>3.4401</b>	0.0007
<b>Foreign Listing</b>	0.0853	<b>2.2684</b>	0.0240
For Own	-0.0608	-1.6720	0.0955

## Regression Results: Service Sector Companies - Model 1

<i>Regression Statistics</i>	
	0.1985
Adjusted	0.1626
Observations	164

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	5.5204	0.0000
Residual	156		
Total	163		

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	0.6786	0.0636	10.6765
<b>Log (TURN)</b>	0.0516	0.0111	<b>4.6620</b>
NPR	0.0000	0.0000	-0.1144
D/E	0.0000	0.0001	-0.2512
Log(Age)	-0.0197	0.0475	-0.4148
<b>Big 4 Audit firm</b>	0.1047	0.0466	<b>2.2467</b>
Foreign Listing	-0.0023	0.0709	-0.0317
For Own	0.0135	0.0708	0.1904

## Regression Results: Service Sector Companies - Model 2

### *Regression Statistics*

	0.2028
Adjusted	0.1671
Observations	164

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	5.6708	0.0000
Residual	156		
Total	163		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.6423	9.9680	0.0000
<b>Listing Category</b>	0.1311	<b>4.7640</b>	0.0000
NPR	0.0000	-0.4477	0.6550
D/E	0.0000	-0.0505	0.9598
Log(Age)	0.0164	0.3528	0.7247
<b>Big 4 Audit firm</b>	0.1179	<b>2.5795</b>	0.0108
Foreign Listing	0.0154	0.2189	0.8270
For Own	0.0027	0.0376	0.9701

## Regression Results: Age (Less than 20 Years) - Model 1

<i>Regression Statistics</i>	
	0.1303
Adjusted	0.0999
Observations	179

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	6	4.2932	0.0005
Residual	172		
Total	178		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.7020	31.8637	0.0000
<b>Log (TURN)</b>	0.0204	<b>2.1401</b>	0.0338
NPR	0.0000	-0.0936	0.9255
D/E	0.0016	0.8767	0.3818
<b>Big 4 Audit firm</b>	0.1737	<b>3.7341</b>	0.0003
Foreign Listing	-0.0599	-0.6944	0.4884
For Own	-0.0241	-0.3967	0.6921

## Regression Results: Age (Less than 20 Years) - Model 2

<i>Regression Statistics</i>	
	0.1093
Adjusted	0.0783
Observations	179

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	6	3.5192	0.0026
Residual	172		
Total	178		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.7263	32.8376	0.0000
Listing Category	0.0188	0.6583	0.5112
NPR	0.0000	-0.0457	0.9636
D/E	0.0020	1.0572	0.2919
<b>Big 4 Audit firm</b>	0.1844	<b>3.9213</b>	0.0001
Foreign Listing	-0.0660	-0.7531	0.4523
For Own	-0.0127	-0.2074	0.8360

## Regression Results: Age (20 to 50 Years) - Model 1

<i>Regression Statistics</i>	
	0.1970
Adjusted	0.1756
Observations	232

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	6	9.2022	0.0000
Residual	225		
Total	231		

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	0.6429	0.0226	28.4552
<b>Log (TURN)</b>	0.0497	0.0099	<b>5.0367</b>
<b>NPR</b>	0.0469	0.0157	<b>2.9866</b>
D/E	0.0000	0.0001	0.2934
Big 4 Audit firm	0.0348	0.0342	1.0175
<b>Foreign Listing</b>	0.1129	0.0408	<b>2.7647</b>
For Own	-0.0358	0.0488	-0.7325

## Regression Results: Age (20 to 50 Years) - Model 2

<b>Regression Statistics</b>	
	0.2120
Adjusted	0.1910
Observations	232

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	6	10.0894	0.0000
Residual	225		
Total	231		

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	0.6605	0.0188	35.2247
<b>Listing Category</b>	0.1294	0.0236	<b>5.4886</b>
<b>NPR</b>	0.0386	0.0154	<b>2.5089</b>
D/E	0.0001	0.0001	0.6350
Big 4 Audit firm	0.0352	0.0337	1.0454
<b>Foreign Listing</b>	0.1389	0.0400	<b>3.4751</b>
For Own	-0.0489	0.0484	-1.0098



## Regression Results: Age (50 Years and above) - Model 1

<i>Regression Statistics</i>	
	0.2256
Adjusted	0.1683
Observations	88

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	6	3.9339	0.0017
Residual	81		
Total	87		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.8202	5.2147	0.0000
<b>Log (TURN)</b>	0.0467	<b>2.4517</b>	0.0164
NPR	-0.0138	-0.8305	0.4087
D/E	-0.0007	-0.7600	0.4495
Big 4 Audit firm	-0.0939	-1.0797	0.2835
<b>Foreign Listing</b>	0.0887	<b>2.5387</b>	0.0130
For Own	0.0268	0.4996	0.6187

## Regression Results: Age (50 Years and above) - Model 2

<b><i>Regression Statistics</i></b>	
	0.2332
Adjusted	0.1764
Observations	88

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	6	4.1059	0.0012
Residual	81		
Total	87		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.8793	5.7332	0.0000
<b>Listing Category</b>	0.1047	<b>2.6209</b>	0.0105
NPR	-0.0110	-0.6680	0.5060
D/E	-0.0004	-0.4645	0.6435
Big 4 Audit firm	-0.0696	-0.8066	0.4223
<b>Foreign Listing</b>	0.0932	<b>2.7339</b>	0.0077
For Own	0.0291	0.5481	0.5851

# Regression Results: A Group Companies

<i>Regression Statistics</i>	
	0.2715
Adjusted	0.1070
Observations	40

## ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	1.6504	0.1584
Residual	32		
Total	39		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.9255	11.5108	0.0000
Log (TURN)	-0.0234	-1.0317	0.3102
NPR	-0.0589	-1.0185	0.3163
D/E	0.0000	-0.1111	0.9123
Log(Age)	0.0207	0.7192	0.4774
<b>Big 4 Audit firm</b>	0.0733	<b>2.8621</b>	0.0075
Foreign Listing	0.0032	0.1178	0.9070

## Regression Results: B Group Companies

<i>Regression Statistics</i>	
	0.1824
Adjusted	0.1616
Observations	283

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	8.7656	0.0000
Residual	275		
Total	282		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.6417	13.7269	0.0000
<b>Log (TURN)</b>	0.0578	<b>5.1794</b>	0.0000
NPR	0.0148	0.8183	0.4139
D/E	-0.0003	-0.6390	0.5234
Log(Age)	-0.0001	-0.0023	0.9981
<b>Big 4 Audit firm</b>	0.0990	<b>3.9335</b>	0.0001
Foreign Listing	-0.0287	-0.7091	0.4789
For Own	0.0207	0.5535	0.5804

## Regression Results: Other (T) Group Companies

<i>Regression Statistics</i>	
	0.1127
Adjusted	0.0760
Observations	177

### ANOVA

	<i>df</i>	<i>F</i>	<i>Significance F</i>
Regression	7	3.0671	0.0046
Residual	169		
Total	176		

	<i>Coefficients</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.6668	7.7239	0.0000
<b>Log (TURN)</b>	0.0262	<b>2.4655</b>	0.0147
NPR	0.0000	0.2127	0.8319
<b>D/E</b>	0.0636	<b>2.9942</b>	0.0032
Log(Age)	-0.0262	-0.4206	0.6746
Big 4 Audit firm	0.0093	0.1154	0.9082
Foreign Listing	0.1803	1.5618	0.1202
For Own	0.1007	0.9909	0.3232

<b>Sample Companies</b>	<b>No. of samples companies</b>	<b>Model</b>	<b>Significant Variable</b>
Overall Sample	500	1 (Turnover as Size)	Size (Turnover), Big 4 Audit firm, Foreign Listing
		2 (Listing Status as Size)	Listing Category, Big 4 Audit firm, Foreign Listing
Manufacturing Companies	336	1 (Turnover as Size) 1 (Total Assets as Size)	Size (Turnover/Total Assets), Big 4 Audit firm, Foreign listing
		2 (Listing Status as Size)	Big 4 Audit firm, Foreign Listing and Listing Category
Service Companies	164	1 (Turnover as Size)	Size (Turnover), Big 4 Audit firm
		2 (Listing Status as Size)	Listing Category, Big 4 Audit firm
Less than 20 years old	179	1 (Turnover as Size)	Size (Turnover), Big 4 Audit firm
		2 (Listing Status as Size)	Big 4 Audit firm
20 to 50 years old	232	1 (Turnover as Size)	Size (Turnover), For Listing, NPR
		2 (Listing Status as Size)	Listing Category and Foreign Listing, Listing Category
More than 50 years old	88	1 (Turnover as Size)	Size (Turn), Foreign Listing
		2 (Listing Status as Size)	Size (Turn), Foreign Listing
A group companies	40	1 (Turnover as Size)	Audit Firm
B group companies	283	1 (Turnover as Size)	Size (Turnover), Audit Firm
T group companies	177	1 (Turnover as Size)	Size (Turnover), D/E

# Correlation Matrix - Model 1

	<i>CI</i>	<i>Big Audit Firm Y/N</i>	<i>NPR</i>	<i>D/O Ratio</i>	<i>Age</i>	<i>For Own</i>	<i>Foreign Listing</i>	<i>Turnov0r (Rs. Cror0s)</i>
CI	1							
Big Audit Firm Y/N	0.081238	1						
NPR	0.119685	0.256358	1					
D/O Ratio	0.07771	-0.01412	-0.0458	1				
Age	0.086902	0.154949	0.036531	0.165268	1			
For Own	-0.01463	0.111044	-0.06552	-0.06897	0.172851	1		
Foreign Listing	0.094688	0.334601	0.293348	0.01846	0.050192	0.058302	1	
Turnov0r (Rs. Cror0s)	0.045677	0.122322	0.003645	-0.02182	0.031137	0.001135	0.069477	1

## Correlation Matrix - Model 2

	<i>CI</i>	<i>Big Audit Firm Y/N</i>	<i>NPR</i>	<i>D/O Ratio</i>	<i>Age</i>	<i>For Own</i>	<i>Foreign Listing</i>	<i>Listing Category</i>
CI	1							
Big Audit Firm Y/N	0.081238	1						
NPR	0.119685	0.256358	1					
D/O Ratio	0.07771	-0.01412	-0.0458	1				
Age	0.086902	0.154949	0.036531	0.165268	1			
For Own	-0.01463	0.111044	-0.06552	-0.06897	0.172851	1		
Foreign Listing	0.094688	0.334601	0.293348	0.01846	0.050192	0.058302	1	
Listing Category	0.17647	0.140053	0.071432	0.156306	0.007462	0.090432	0.131523	1



# Factors affecting Disclosure

# Size

## Possible Reasons

- This is supported by the notion that accumulation and dissemination of information is costly affair and hence large firm can easily afford it.
- Large firm also frequently raise funds from security market for financing and therefore it leads to disclosure by them to comply with different regulations.
- Large firm are also watched more by Government and other stakeholder who make them more compliant.

## Past Evidence

Singhvi and Desai (1971), Belkaoui and Kahl (1978), McNally *et al.* (1982), Cooke (1992), Inchausti (1997), Dumontier and Raffournier (1998), Joshi and Mudhahki (2001) Karirn and Ahmed (2005) and Cerf (1961).

# Foreign Listing

Possible Reasons	Past Evidence
<ul style="list-style-type: none"><li>•This may be because foreign listed firms are subject to broader range of regulatory compliances.</li><li>•They have to face diverse financiers and fulfil their demand of higher disclosure.</li></ul>	<ul style="list-style-type: none"><li>•Cerf (1961) Glaum and Street (2003), Owusu-Ansah (1998), Chow and Gray (2002) and Malone et al(1993).</li></ul>

# Leverage

- Leverage has been found significant for companies listed (Other than A and B Group) with BSE.
- This may be because Lenders put pressure on such companies to be more transparent.
- This has been found consistent with the previous studies like that of Malone et al (1993) Bujaki and McConomy (2002) Naser et al. (2002) Prencipe (2004).

# Results and Discussions Compliance Level for Each Standard

No.	Name of Standard	Compliance by Companies
AS-1	Disclosures of accounting policies	<b>90.33%</b>
AS-2	valuation of inventories	74.55%
AS-3	Cash Flow Statements	68.48%
AS-4	Contingencies and Events Occurring After the Balance Sheet Date	66.55%
AS-5	Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies	67.64%
AS-6	Depreciation Accounting	71.96%
AS-7	Construction Contracts	85.74%
AS-8	Research and Development (Withdrawn and included in AS 26)	NA
AS-9	Revenue Recognition	61.30%
AS-10	Accounting for Fixed Assets	65.00%
AS-11	The Effects of Changes in Foreign Exchange Rates	64.12%
AS-12	Accounting for government grants	NA
AS-13	Accounting for investments	65.41%
AS-14	Accounting for Amalgamations	81.16%
AS-15	Accounting for Employee Benefits	<b>45.72%</b>
AS-16	Borrowing Costs	62.96%
AS 17	Segment reporting	80.35%
AS-18	Related Party Disclosures	86.83%
AS-19	Leases	<b>52.90%</b>
AS-20	Earnings Per Share	67.10%
AS-21	Consolidated Financial Statements	69.61%
AS-22	Accounting for Taxes on Income	70.35%
AS-23	Accounting for Investments in Associates in Consolidated Financial Statements	86.71%
AS-24	Discontinuing Operations	NA
AS -25	Interim Financial Reporting	74.93%
AS-26	Intangible Assets	70.91%
AS-27	Financial Reporting of Interests in Joint Ventures	81.28%
AS-28	Impairment of Assets	78.80%
AS-29	Provisions, Contingent Liabilities and Contingent Assets	64.49%

# Practical Implications

- It would act as **an alarm for standard setting bodies** ICAI, ASB and NACASA as compliance level by many companies have been low.
- It would help regulatory authorities like SEBI, Stock exchanges and Ministry of Corporate Affairs (MCA) **to frame appropriate policies** to curb practices of lower level of compliance which may lead to frauds and malpractices.

- It may help in framing policies that may have appropriate targets (e.g. particular area of AS with lower compliance) to improve level of compliance.
- It may help Accounting professionals, corporate accounts department and auditors to be more careful.
- It can help lenders to take into account factors that are associated with low compliance. They may improve their review for weaker areas.
- It would help Portfolio Managers, Financial Analyst, and Investors to assess the level of compliance by companies before taking investment decision.



# Limitations of study

- While selecting samples some companies could not be considered due to non-availability of annual report. Though this is a very serious non-compliance, it gets ignored in the study.
- The present study is restricted to listed companies only.
- The findings are from sample companies which represent only 10% of listed companies.
- The study has relied on the published report, assuming accuracy of information provided.

## Further Research Directions

- This study is related to mandatory disclosures. One can possibly study voluntary disclosure level of companies.
- This study is related to Indian companies. It can be extended to international level. It is possible to conduct comparative study of Indian companies with foreign companies.
- It is possible to conduct similar study for unlisted companies as well; however availability of data could be a cause of concern.
- Similar study can also be conducted for IFRS Compliance.