

Voluntary Financial Disclosures and Firm Characteristics—Evidence from Indian Companies

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ABSTRACT

Capital market keenly observes the information on earnings by companies and the focus is now shifting on the different measures of performance rather than the conventional measures prescribed by accounting standards. There is an increasing trend of companies providing certain financial disclosures, more than those mandated by regulators. This study empirically investigates the factors determining the level of such voluntary financial disclosures in Indian companies. The period (just before the major changes in the financial reporting) and the context (India as an emerging economy attracting the foreign investment) provide the motivation for the study. The study uses a set of 16 items of voluntary financial measures applicable in the Indian context developed while referring to the literature of several countries. The sample of the study is the companies constituting the BSE 100 Index for the period 2009-10 to 2013-14. To investigate the factors determining these disclosures, three types of variables, namely, profitability, corporate governance and nature of firms are used. By employing panel data models using fixed and random effects, the study found that the size, age, profitability and market valuation determine the level of voluntary financial disclosures.

Keywords: Non-GAAP earning, BSE 100 companies, Indian Accounting Standards, Proforma earnings and Panel data regression.

I. INTRODUCTION

In the corporate form of business, there is a separation of ownership and management. Disclosure of key data in reporting would help the users make informed decisions. If companies do not disclose adequately, it could cause price dispersion in the market for want of critical information (Singhvi & esai, 1971). The financial statements of companies contain financial statements and other supplements as prescribed by the regulators of respective countries. There are various motivations for the firms to disclose additional information than those mandated by the regulators, which could be due to the interaction of product, labour and capital markets (Khanna, Palepu, & Suraj, 2004).

The conventional performance measurement of the companies which are in the format prescribed by the Generally Accepted Accounting Principles (GAAP) of the respective countries are becoming noisy as sometimes they do not reflect the true economic earnings (Bradshaw & Sloan, 2000). Companies across the world transcend the home country and seek funds from abroad. Hence, the need for quality financial reporting is felt and several concepts, such as, Economic Value Added 1TM, Triple Bottom Line²are emerging.

Non-GAAP earnings, such as, Earnings Before Interest, Taxes and Depreciation and Amortization (EBITDA), are generally used as incentives for managers, to make the user understand the core potential of earnings and even as directed by loan agreements (Jennings & Ana, 2011). Several studies have shown that such non-voluntary financial information is more useful for the economic decisions than the GAAP measures (Frankel & Roychowardary, 2005).

Contrary to this, studies by Chen, Krishnan, and Pevzner (2012) indicate that non-GAAP profit measures exclude certain non-recurring items and hence may mislead the users. These non-mandatory measures have also been criticised that they could help using subtle forms to manage the impression of the firms amongst outsiders and distort the reader's perception of the company's achievement (Godfrey, Mather, & Ramsay, 2003). Thus, a trade off between cost and benefit of increased disclosures has to be achieved and an optimal disclosure policy has to be devised.

This paper studies the level of disclosure of such voluntary financial information in Indian companies. The study is motivated by the context and the time period. India is one of the fastest emerging economies in the world thus a preferred market for the investment by foreign institutional investors and the investment in Indian equity and debt market has touched a record with the net investment standing at \$2.04 Billion in September 2014. (Foreign Investments in India, 2015)³. Indian companies have also been attracting equity funding with close to INR 1 trillion in 2014. This sets the context that companies need to improve their financial disclosures, among other things, to be able to win the confidence of the investors.

The second motivation is the period of the study. India has converged toward International Financial Reporting Standards (IFRS) which has changed the disclosure landscape of Indian companies from 2016 and it is of interest to find the level of voluntary disclosures prior to such convergence, implemented by the regulators. According to Gray (1988), every country has an accounting culture and one such culture is secrecy and transparency and it is of interest to understand the extent of transparency in India, prior to such convergence. This study has taken one element of transparency, namely, voluntary financial disclosures. It attempts to answer the following *research questions*:

- 1: What are the various voluntary financial disclosures relevant to the Indian context?
- 2: What is the extent of such disclosures amongst Indian companies?
- 3: How is the trend of the disclosures?

4: What are the factors that determine the level of such voluntary financial disclosures in India?

In this study, we empirically analyse the factors determining the level of voluntary financial disclosures of Indian companies. We first create the set of voluntary financial disclosure items applicable in the Indian context and then find the extent of such disclosures using content analysis from the annual reports. The sample consists of companies listed in BSE 100 Index for the period of the study, i.e., and financial year 2010 to 2014. This is one of the first studies to empirically analyse the voluntary financial disclosures using longitudinal data in India. This paper contributes to the literature in examining the role of firm characteristics, profitability and governance factors responsible for the level of financial disclosures. Other than the variables found in the literature, this study has used Price Earning (PE) multiple as a possible predictor for the level of financial disclosures.

The remainder of the paper is organised as follows. Section II discusses the financial disclosure in India; Section III gives a complete review of literature and hypothesis development. Section IV describes the research methodology; Section V sums up the results and the conclusion and Section VI gives conclusions and implications of the study.

II. FINANCIAL DISCLOSURE IN INDIA

In Indian context, regulators, such as, Registrar of Companies, Securities and Exchange Board of India (SEBI), Reserve Bank of India (RBI) put forth various disclosure requirements of the companies. The Institute of Chartered Accountants of India (ICAI) is authorised for preparing accounting standards through its apex body Accounting Standards Board (ASB) and as on 2015, when the study was undertaken, there were 32 Accounting Standards. The Central government constituted the National Advisory Committee on Accounting Standards (NACAS) under section 210A of the Companies Act, 1956, which lays down accounting policies and accounting standards for adoption by corporate bodies. These requirements are also codified in the Companies Act, 2013. In 2011, India decided to converge into IFRS through the 35 newly developed, Ind AS, in different phases. The deadlines got revised several times and the first phase companies prepared the financial statements in Ind AS with effect from 1st April 2016. These companies include those with a net worth of Rs. 500 crore or more and its holding, joint venture and associated companies.

The recent changes in the financial reporting give evidence that companies are expected to be more transparent in disclosures. For example, the newly enacted Companies Act, 2013, requires companies to disclose their spending on corporate social responsibility.

Clause 55 of the listing agreement by SEBI requires the companies to disclose their performance in various social and environmental parameters. There are Indian companies which started disclosing these information even before it was made mandatory. In the global landscape, Indian companies have fared well in the financial disclosures. In 2012, Infosys scored the first rank of corporate governance disclosures as per the ranking of IR Global Rankings. As per the research done by Transparency International, ONGC scored third rank in the world in the oil and gas sector in disclosure. It is thus of interest to understand the factors determining the voluntary disclosure of Indian companies.

III. REVIEW OF LITERATURE

The ensuing section collates the select studies on voluntary financial disclosures which lead to the list of items used in the study.

Many studies have focussed on the different items of voluntary financial disclosures. Meek, Gray & Roberts (1995) studied an extensive list of 26 items of financial information that include cash flow ratios, inflation accounting, off balance sheet items, etc. Shammari (2010) used voluntary disclosure index consisting of several voluntary financial ratios, such as, gearing, growth rate on earnings, etc., Shattrat, Haddad and Hares (2010) used an index of voluntary disclosure list which had 18 items of financial information, such as, aging of receivables, working capital ratio, etc. Binh (2012) studied among others, seven non-GAAP information, such as, inflation adjusted financial statements and the summary of the performance of the companies in the last six years. Kolsi (2012) used a voluntary disclosure index which contained nine financial information, such as, off balance sheet items, financial ratios among others.

Several studies focused only on the cash flow ratio and the factors influencing the disclosures. According to Mills and Yamamura (1998), cash flow ratios play an important role for performing liquidity analysis and to assess if the companies could withstand cyclical fluctuations; if they can make capital investments or even how it can raise funds for the coming years. McKinnon and Dalimunthe (1993) studied the cash flow ratios of companies in Australia and found that there were a limited number of companies disclosing them in the sample. Wasley and Wu (2006) explored the cash flow forecast information which sends a signal that companies are reducing their scope for earnings management. eljana (2012) found that cash flow ratios and disclosure gave a better perception amongst the investors and were capital market friendly. Several other studies have also used Free Cash Flow (FCF) as a voluntary item where free cash flow had at least six explanations. Maksy and Chen (2013)

established that FCF disclosure had a significant association with stock price changes indicating value relevance of the number.

Indicating financial performances under other GAAP was also voluntary financial information and there are studies available under this category. Rick and Willem (2005) investigated the possible motivation of companies to disclose financial information from other GAAP and found that such companies had significant benefits including lower cost of capital.

The other set of literature focused on the disclosure of Economic Value added (EVA). According to Sharma and Kumar (2010), EVA has become a more noticeable metric amongst corporates to indicate value to external investors, as against a tool for internal performance measurement. Lovata and Costigan (2002) found that EVA metric significantly influences the firm value and is adopted by companies with higher institutional ownership and lower share of promoters' holdings. A study in the Indian context on the EVA disclosure by Kaur and Narang (2010) indicated that size, profitability and leverage showed significant association in the firms' decision to show EVA.

The studies on the factors determining the extent of financial disclosures are broadly classified in terms of firm characteristics, financial and governance variables. The study considered a wide range of such variables. For example, Gray, Meek and Roberts (1995) found that listing of the shares in multiple countries motivate the firms to disclose more information as they need to comply with the reporting requirements of different countries. India has been tapping the off-shore capital markets in the last few years and close to a hundred companies have listed their securities in the off-shore market as of 2015.

The type of industry was also used as a control variable, as the disclosure regime would be different in terms of the nature of the industry (Lopes & Rodrigues, 2007). Auditors play a role in the extent of disclosure by the companies, and their position is increasingly monitored by the regulators (Raffournier, 1995). Webb, Cahan, and Sun (2008) found a positive relationship between the proportion of export revenue and the disclosure level.

The ownership pattern of a company was also found to be a factor that can influence the disclosure decisions. The dispersion of ownership, that is, a higher percentage of non-promoters' holding, could bring in more transparency to the table. Earlier studies have found that ownership dispersion is to be associated with disclosure practices. There is empirical evidence to indicate that a concentrated ownership would give less incentive for the firms towards higher disclosures.

The percentage of institutional ownership was also examined in the previous studies as a determinant of the disclosure decisions of the firms. Belkaoui (2001) found that if the number of people who need to know the affairs of the firms is high, the firm would have inducement for a greater disclosure. Murcia and Santos (2012) established that institutional owners bring in a sense of responsibility among the companies to give transparent disclosures.

IV. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

The first research question for the study is to find the list of voluntary financial disclosures applicable in Indian context. To address this, the study has collated extant literature on voluntary disclosure items as indicated above and extracted the most repeated financial information from them. It removed the items that are for mandatory India (for example, cash flow statements, segment reporting, etc.). It combined few common items (such as, inflation effects on revenue, profit, etc.). The authors sought opinion to validate the short listed items from the experts (Industry and academics) and the final list contained 16 items that constituted Voluntary Financial Disclosure Index. The study used content analysis to score the disclosure of the companies based on the index (NGAAPDI). Certain key words are used to measure the presence or otherwise of such items. *Appendix 1* lists the items and the key words used. The Index satisfied the reliability and validity test in the pilot study.

Association between firm characteristics and voluntary financial disclosure

Size of the firm is widely used in the literature. The most common proxies used for size being natural logarithm of assets or sales. Hashim and Saleh (2007) found that bigger firms were high on voluntary disclosures perhaps due to higher agency costs and government intrusions. Studies by Barako, Hancock, and Izan (2006), Meek and Gray (1996), Lopes and Rodrigues (2007) found that the firm size had a positive relationship on the disclosure level. This relationship could hold true for Indian companies as well. Indian regulators have put in the disclosure requirement for larger companies as compared to smaller companies. Example, requirement on IFRS convergence, Business Responsibility Reporting, etc., is made for bigger companies only as the cost of failing failure rates of these companies are high. Thus, we hypothesise:

H1: There is a positive relationship between the size of the firm and the level of voluntary financial disclosures

The listing age of the firm was also considered as a variable in the empirical studies. Alsaeed (2005) found that companies listed for a longer duration had evolved in the disclosure norms and had it higher than younger firms. In India, the capital market got vibrant over the last few decades only and thus it is of interest to study its association with voluntary disclosures. Thus, we frame the following hypothesis:

H2: There is a positive relationship between the age of the firm and the level of voluntary financial disclosures

Association between financial variables and voluntary financial disclosures

The level of disclosure could also be associated with the profitability of the firms. A company with a higher profitability in terms of return on assets, return on equity, etc., has more incentive to disclose more information as per the signalling theory. A number of studies, for instance, Prencipe, (2004) (Barako, Hancock, & Izan, 2006 and Wang, Sewonand Claiborne (2008) found a positive association between profitability variables and voluntary disclosure. Indian companies are one of the best performing entities in the emerging market due to cost advantages in spite of poor infrastructural capabilities (Standard & Poor, 2015). Thus we hypothesise:

H3: There is positive relationship between the profitability and the level of voluntary financial disclosures

Studies have also looked at leverage, the extent of debt in the capital structure as a factor for the firms for good disclosures. The lenders have debt covenants in place, which could put pressure on the companies to disclose information voluntarily to protect their interests. The higher level of disclosures could reduce the information asymmetry for the debt holders, which in turn could reduce the cost of debt. Adhikari and Daru, (2006) empirically verified the number of companies disclosing cash flow information and found that only those companies with higher leverage and lower credit rating had been disclosing the information with the possible motivation to augment the reported income. Studies by El-Gazzar, Fornaro, and Jacob (2008) found that companies with higher debt want to attract debt holders with more information to keep their trust level high. Accordingly:

H4: There is a positive relationship between the leverage and the level of voluntary financial disclosures

Price Earnings Ratio is a market assessment of a company's performance and as per the dividend growth model; it depends on the growth rate, risk and the expected rate of return. The firm with higher PE has higher expected short term growth rate (Easton, 2004).

Being a valuation ratio; the previous literature studied how the disclosure level impacts the PE ratio of the firm. In this study, we want to explore PE ratio as a possible influencer of the disclosure decisions. The companies with a higher PE multiple, valued higher in the market may have more incentive to disclose financial information voluntarily to be able to reduce the perceived risk to the investors. Thus-

H5: There is a positive relationship between PE ratio and the level of voluntary financial disclosures

Association between governance variables and voluntary financial disclosure

The other element of governance discussed in the literature is the role of independent directors who provide the companies with knowledge resource and are responsible to shareholders (Forker, 1992). A study in China by Qu, Leung and Cooper (2013) found that the extent of independent directors on the board ensured that the primary concern of the shareholders was met. Darmadi and Sodikin (2013) established that family owned companies have lesser incentive to disclose and a higher proportion of independent directors in the board could bring in transparency. Indian companies are primarily family owned entities where the owners take the position of executive directors'. Hence, we hypothesise:

H6: There is a positive relationship between the proportion of independent directors and the level of voluntary financial disclosures

The study used the non-GAAP financial disclosure index (NGAAPDI) described in the previous section to estimate the level of disclosure. The student used content analysis which involves reading the annual reports of the companies in the respective year. The authors awarded a point of '1' for the presence of an item in the Index and '0' if not. For the presence of each disclosure, the score given was '1' and if that item was not available, '0' was given. The total score was then converted into percentage by dividing by '16' which is the number of items in the index and the score is termed as Non- GAAP Disclosure Score (NGAAPDS).

The study period is from financial years 2009-10 to 2013-14 covering five financial years as per the rationale discussed in the previous section. Non-Financial companies from BSE 100 are chosen for the study. Financial companies (Banking, Insurance, non-Banking financial institution) are governed by other laws and are distantly different from rest of the companies and hence are excluded from the purview. BSE 100 is a broad-based index based on free float with real-time calculation frequency developed by Bombay Stock Exchange. Started in year 1983-84, with a base value of 58, it is currently trading at about 8000 points. A balanced panel data is used and hence only the companies forming part of the Index in all

the five years period is included in the model. This resulted in 65 companies and 325 firm years. The companies are classified into 10 broad categories (namely, Diversified, Cement, Infrastructure, Automobile, Capital Goods, Services Mining, Mineral and Refinery, Fast Moving Consumer Goods, Pharmaceuticals and Miscellaneous).

Fixed and random effects models

Panel data model observes a set of variables of an entity for more than one period. Panel data serve the benefit of considering the omitted variables bias caused by unobserved heterogeneity. It has an important advantage over cross sectional data set as they allow analysing the changes at an individual level, that is, Fixed Effects (FE) and Random Effects (RE) models.

TABLE 1
Variables definition

<i>Variable</i>	<i>Code</i>	<i>Formula Used</i>
Non-GAAP using Disclosure Score	NGAAPDS	Score on the total of 16 on the basis of the index a dichotomous scoring pattern
Size	LnTA	Natural logarithm Total Assets (LnTA)
Age	AGE	Natural Logarithm of Days since listing till end of respective financial year
Return on Assets	ROA	Profit After Tax / Total Assets
Leverage	LEV	Total Debt / Equity
Price Earnings	PE	Market Price as on the last day of the year / EPS of Ratio the year
Independent Director	INDIR	No. of Independent Directors / Board Size

Note: Variables chosen by authors based on earlier literature.

The variables in the model are chosen after several iterations from the initial set of variables found in the literature. For example, industry type, foreign listing status and auditor type from the firm characteristics, proportion of export revenue from financial category and promoters holding, foreign holding from the governance category are dropped during subsequent iterations to find the best model. The final variables fitted in the model are presented in table 1.

Fixed Effects (FE) model is studied to understand the relationship between voluntary disclosure score and the predictor variables of the sample companies on the premises that company specific variables (such as, industry type, ownership type, etc.) that are time invariant could influence the outcome variables and such effects are to be controlled. FE model also assumes that if the unobserved variable does not change over time, then any

changes in the dependent variable must be due to the influences other than these fixed characteristics (Stock & Watson, 2003, p 289- 290).

The model of FE is given below:

$$NGAAPDS_{it} = \beta_1 SIZE_{it} + \beta_2 AGE_{it} + \beta_3 ROA_{it} + \beta_4 LEV_{it} + \beta_5 PE_{it} + \beta_6 INDIR_{it} + \alpha_i + u_{it}$$

Where, α_i ($i = 1$ to n) is the unknown intercept for each entity Y_{it} is the dependent variable and u_{it} is the error term

Random Effects (RE) model on the other hand assumes that the error terms, which are not explained in the model, are caused by random factors and are uncorrelated with the predictor variables. The model of random effect is:

$$NGAAPDS_{it} = \beta_1 SIZE_{it} + \beta_2 AGE_{it} + \beta_3 ROA_{it} + \beta_4 LEV_{it} + \beta_5 PE_{it} + \beta_6 INDIR_{it} + \alpha + u_{it} + \varepsilon_{it}$$

Where ε_{it} denotes the within-company error and u_{it} denotes between company error.

V. RESULTS AND DISCUSSION

The study used Shapiro-Wilk W test for checking the normality of the data. The null hypothesis of this test is that the data are normally distributed and the p value of the results was 0.20790 which means the null hypothesis cannot be rejected and hence the data are normally distributed. The descriptive statistics of all variables (other than dummy variables) are presented in table 2.

TABLE 2
Summary descriptive statistics of explanatory variables

	N	Minimum	Maximum	Mean	Std. Deviation
NGAAPDS	325	0.00%	81.25%	35.28%	16.43%
TA (In INR Million)	325	0	3677440	402785	540709
LEV	325	0	6	.48	.730
AGE	325	5	11	8.80	.953
ROA (%)	325	0	33.5	8.8	8.0%
INDIR	325	12	80%	51 %	12%
PE	325				

Source: Based on secondary data.

The financial disclosure of voluntary financial items shows that the maximum score any company obtained during the study period was close to 81% indicating higher disclosure; however the average disclosure score of Non- GAAP information was just about 35% and a standard deviation lesser than mean, indicates that most of the companies hovering around

this range in terms of the disclosure. The average return on equity of the companies is around 23% and the proportion of independent directors of around 51% indicates a diverse board. The score of voluntary financial disclosure is analysed in terms of years and is presented in table 3.

TABLE 3
Year-wise descriptive statistics of NGAAPDS (%)

	2009-10	2010-11	2011-12	2012-13	2013-14	Overall
Mean	32.9	31.2	33.1	37.2	41.2	35.0
Median	31.2	29.1	31.2	37.0	37.5	31.0
Std. Deviation	1.7	1.7	1.7	1.8	1.5	0.7
Minimum	0	0	3.25	0	12.5	0
Maximum	68.2	81.2	75.0	68.7	75.0	81.2
N	83	79	77	77	77	393

Source: Secondary data; Results computed using SPSS 20.

It is evident that the overall average score is 35%, the latest year 2014 showed a marginal improvement in the score. Most of the companies did not discuss inflation adjusted financial statements. The other item which showed lower score is cash flow ratios. An analysis of extent of voluntary disclosures in terms of industry indicates some interesting results which are presented in table 4.

TABLE 4
Industry-wise descriptive statistics of NGAAPDS (%)

	1	2	3	4	5	6	7	8	9	10
Mean	29.0	32.0	33.6	36.6	34.3	28.9	39.7	36.3	41.2	32.8
Median	25.0	31.0	31.0	3.3	34.3	31.5	37.5	37.5	37.5	31.2
S. D.	3.3	3.4	1.6	34.4	3.7	2.0	2.6	1.5	2.8	2.6
Minimum	6.2	12.5	6.2	6.2	12.5	6.2	0	0	12.5	0
Maximum	56.2	62.5	68.7	68.7	62.5	56.2	81.2	75.0	68.7	75.0
N	21	17	70	30	22	35	48	87	25	38

Source: Secondary data; Results computed using SPSS 20.

1-Diversified; 2-Cement; 3-Infrastructure; 4-Automobile; 5-Capital Goods; 6-Chemicals; 7-Services; 8-Mining&Minerals; 9-FMCG; 10-Pharmaceuticals

From the industry-wise descriptive analysis of NGAAPDS as in table 4, it is clear that companies in FMCG & IT sectors have higher mean scores of around 40%. Companies like HUL, ITC, Infosys in this categories publish the details of Economic Value Added (EVA). FMCG and service companies had the maximum disclosures of around 41%. An interesting point to note here is that, most of the service industries in the sample had higher extent of

operations outside India and the FMCG companies had higher extent of institutional holding. The maximum score is obtained by service industry. Companies in this group such as Wipro, Infosys & TCS, present the financial statements in other GAAP (mainly IFRS).

The Variable Inflation Factor and the Conditional Index are verified for multicollinearity. None of the variables had a conditional index of more than 5 and hence all the variables are used in the model. Pearson correlation matrix is extracted to understand the correlation between explanatory and dependent variables and the results are given in table 5.

TABLE 5
Correlation coefficient of the variables in the model

	NGAAPDS	LEV	LnTA	AGE	INDIR	ROE	PE
NGAAPDS	1						
LEV	.079	1					
LnTA	.183**	.158*	1				
AGE	.086*	-.023	.037	1			
INDIR	-.106	.023	-.171**	.010	1		
ROE	.097*	.065	-.056	.182**	-.052	1	
PE	.142	.524	-.24	.64	.024	.425**	1

Source: Results computed from secondary data.

Correlation Matrix in table 5 shows significant and positive correlation between NGAAPDS and the variables, such as, size, age and profitability which indicate that companies with a longer trading history or those larger in size and more profitable tend to disclose more information voluntarily on financial parameters. The correlation is negative, but not significant with respect to the proportion of independent directors.

To model the relationship between Non-GAAP financial disclosures and firm characteristics, the study used panel data regression using Ordinary Least Squares (OLS), Fixed Effects Models (FE) and Random Effects models (RE). The independent variables were chosen after several iterations through robustness check and are corrected for heteroscedasticity.

The best fit among the models is found by the following process. Primarily, the panel data regressions are performed by using fixed effects and random effects models. First, the better model between fixed effects and random effects model is selected using Hausman test, whose null hypothesis is 'random effects model is suitable'. Thus, if the p-value of the Hausman test is less than the significant value of 0.05, the null hypothesis is rejected and fixed effects model is useful for explaining the relationship between Non-GAAP financial disclosures and firm characteristics. If the p-value of Hausman test is more than 0.05, the

random effects model is very useful for explaining the relationship between Non-GAAP financial disclosures and firm characteristics; however, further hypothesis test is not needed. The results of the models are depicted in table 6.

TABLE 6
Panel Regression Test Results

NGAAPDS	FE	RE
LnTA	-0.0294 (0.029)	0.02 (0.011)
ROA	0.0287 (0.026)	0.015 (0.017)**
AGE	0.049 (0.038)	.03076 (0.005) **
LEV	0.0008 (0.00)	0.008 (0.00)*
PE	0.0012 (0.003)	0.008 (0.001)*
INDIR	0.0614 (0.584)	0.0032 (0.474)
N	325	325
Hausman test statistic = 5.27 (0.153); F-statistic = 3.17(0.000)		

Note: *Significant at 1%, **Significant at 5%, ***Significant at 10%; () indicates the probability.

Table 6 shows that the probability of Hausman test is 0.153, which is more than 0.05. Then the null hypothesis is not rejected, this indicates that the random effects model is very useful for explaining the relationship between Non-GAAP financial disclosures and firm characteristics under the study. From the random effects model, it can be seen that size, age, profitability and the proportion of independent directors have positive association with the Non-GAAP financial disclosures of the companies but the proportion of independent directors is not statistically significant. Again, leverage and PE ratio are negatively and significantly associated with the Non-GAAP financial disclosures of the companies under study. The first three null hypotheses are rejected and confirm that there exists a positive relationship of the age, profitability and of the firm with the level of voluntary financial disclosures. The fourth and fifth null hypotheses are also rejected and confirm that there exists a positive relationship of leverage and PE with the level of voluntary financial disclosures. The sixth hypothesis is not rejected as the probability is more than 5% and indicates that there is no significant positive relationship of the proportion of independent directors with the level of voluntary financial disclosures because independence of the independent directors is all the time doubtful and debatable in the Indian environment. Even after a massive change in the business dynamics, particularly after the liberalised economic policy in 1991, one of the factors that remained stable is the dominance of family owned business. Out of the top 20 business entities in India, around 15 are family owned constituting around 84% of the combined assets of the top 20 companies (Kant, 2016). In

spite of this, promoters' holding did not constitute the factors to determine the voluntary financial disclosures of the companies. In terms of the global counterpart, the number of large and profitable companies in India is far lesser, and that is one of the reasons for lower analysts following in the global scenario. With the result that bigger and more profitable companies disclose more voluntary financial disclosures reinforces that the possible reasons for such act is to attract higher following.

Similarly, the study found a positive association between the listing age and the extent of voluntary financial information consistent with the earlier result that companies evolve over time in managing investors' relations and governance create liquidity in the market. (Brennan & Tamarowski, 2000). Another revelation from the study is that companies with a higher P/E ratio tend to disclose higher voluntary financial information which emphasises the fact that the disclosure levels are driven by market expectations and sentiments.

VI. CONCLUSIONS AND IMPLICATIONS

The study analysed the extent of the voluntary financial information and its determinants in India and is one of the first studies to be carried out during the transition period of regulatory changes in India. It contributed to the literature by identifying the trend of Non-GAAP financial disclosures by Indian companies during an important transition period. The results indicate that bigger companies have higher disclosures as shown by a number of studies including (Alsaeed, 2005); (El-Gazzar, Fornaro, & Jacob, 2008) etc. In India, bigger firms have higher analysts following which is validated by the current study. There is also an indication that profitable companies disclose more information, perhaps to signal and get better firm valuation. The study, however, found no significant association with the proportion of independent directors which were inconsistent with studies by (Baek, Johnson, & Kim, 2009) perhaps due to the fact that independence of the independent directors is always questionable in the Indian context. The listing age also shows significance, supporting the fact that new age companies in the sun rise sectors in India had shown good disclosure scores.

The *limitation* of the study is the sample size of BSE 100 companies which may not be truly indicative of all the Indian companies. The second limitation is the usage manual content analysis of annual reports, thus limiting the sample size. A computerised content analysis could have unearthed more accurate results for larger number of companies.

The study can be further extended to larger companies or focus could be shifted to companies of the particular industry which could give better perspectives. In spite of these,

the current study fills the gap in the literature of the voluntary financial disclosures of Indian companies in the crucial period of regulatory reforms and hence remains relevant.

ANNEXURE 1

Voluntary financial information checklist

Sl. No.	Voluntary Disclosure Items	Key words
i.	Cash flow ratios	<i>Free cash flow/ cash flow to operating activities</i>
ii.	Ageing of receivables	<i>Receivable ageing schedule -days sales outstanding</i>
iii.	Index of selling price	<i>Index , selling price</i>
iv.	. Financial history of years	<i>Consolidated summary of ratios of the 6 or more last six years</i>
v.	Effect of inflation on assets	<i>Inflation, asset revaluation or profits</i>
vi.	Non GAAP financial measures	<i>EBITDA, EBITDA Margin, EBIT</i>
vii.	Inflation adjusted statements	<i>financial Inflation adjusted balance sheet, profit and loss account</i>
viii.	Cost of capital	<i>Cost of capital, WACC, Cost of Equity</i>
ix.	Economic value added/Value creation metrics	<i>EVA, NOPAT, economic value added</i>
x.	Use of long term fund	<i>Fund flow statements</i>
xi.	Bank account details	<i>Bank account with the balances in each of them separately</i>
xii.	Dividend pay-out policy	<i>Dividend pay-out, dividend yield</i>
xiii.	Financial statements of other GAAP	<i>US GAAP, IFRS, German GAAP etc.</i>
xiv.	Off balance sheet financing	<i>Lease, operating assets,</i>
xv.	Qualified audit report	<i>Qualified report, audit qualifications</i>
xvi.	Transfer pricing policy	<i>Transfer pricing</i>

Source: Prepared by authors.

ANNEXURE 2

The Industry Classifications of the Sample Companies

Industry	No. of companies in the sample
Automobiles	6
Capital Goods	3
Mining Refinery	14
Infrastructure	11
Cement	3
Diversified	4
FMCG	4
Pharma	7
Service	8
Others	5

Total	65
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End Notes

1. Economic Value added is an economic metric proposed by Stern Stewart & Co which is a measure of profit less cost of all capital employed.
2. This is the word coined by John Elkington in 1994 which provided framework for reporting the performance of the enterprises on Profit, People and Planet or three pillars of sustainability.
3. The index was checked for reliability using test –re test which involves measuring the disclosure level using the index multiple times and finding the correlation between such repeat trials and the index scored a higher correlation of 0.82. Inter-coder reliability was also checked using the scores secured by two coders and finding the Kappa coefficient and NGAAPDI with a coefficient of 72% passed the test of reasonable agreement between coders. Internal consistency was checked using NGAAPDS with an overall disclosure index which consisted of eight other categories that resulted in a Cronbach alpha 77.5% satisfying the reliability test.

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