CORPORATE DISCLOSURES AND FIRM CHARACTERISTICS: A STUDY OF THE EMERGING MARKET LISTED COMPANIES

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Abstract

The objective of this study is to understand whether firm characteristics explain the extent of corporate disclosures in the annual reports of listed Indian companies. In the field of accounting, voluntary information disclosures have been receiving a lot of attention as they bridge the gap between what is mandatory and what is sought by the stakeholders. Due to the prime focus of corporate disclosure literature on the linkage of company characteristics with the extent of disclosures, it becomes pertinent to study this aspect before studying the policy and regulatory impact. Hence, it is examined what prompts listed corporate entities in an emerging market like India to disclose more. The disclosure scores of Indian CNX 100 companies over a period of five years (2011–2015) related to firm characteristics such as age, size, and listing status were arrived at through content analysis and subsequent coding of the data. The study applied correlation, regression, and t-test to analyze respective scores and firm-specific data accessed from CMIE Prowess and Ace Equity industry databases. The study found firm characteristics such as age and listing status to be non-significant in leading corporations to enhanced disclosures. However, regression results improving with respect to the firm size and almost becoming significant in later years especially in the post-policy period (i.e., post-2013) remains an important takeaway from this study. The study stands on a formidable ground that it is the policy initiatives that are pushing firms to reveal more about their businesses keeping in mind the diverse perspectives of accounting information users.

Keywords: Reporting, Accounting Disclosures, Accounting Information Users, Voluntary Non-Financial Disclosures, Firm Characteristics

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1. INTRODUCTION

Accounting is equally about managing the diverse information needs of a firm's users of information. One of the needs of these users who are both internal, as well as external, is to stay apprised of the activities of an organization so that they can make informed decisions while transacting with them. This dimension of accounting has led to a shift in the way we manage our businesses. There's a paradigm shift in how accounting is looked at today. Though the basic objective of accounting remains to be information dissemination, it has graduated from disseminating financial information to enunciating a variety of information about corporate entities.

Annual reports of the corporations do have a good amount of financial disclosures but this doesn't meet the needs and requirements of those users who are exclusive and independent of a business entity. The users, such as non-government organizations, communities, media, the general public, environmentalists who wish to seek information on sustainable sourcing, as well as utilization of resources are neither satisfied with mandatory disclosures nor with voluntary information disclosures. India with its growth engines on did not wish to emerge as an economy that is oblivious of the shared resources and its responsibility towards them, therefore, in line with the European Union's directives Ministry of Corporate Affairs (MCA) drafted the National Voluntary Guidelines (NVGs) in 2011 which were adequately fine-tuned with ESG (economic, social, and governance) framework.

In the year 2011, disclosures as per NVGs were voluntary in India, then, from the financial year 2012–13, they were mandated for the top hundred Indian companies. Nevertheless, all corporate entities were encouraged to come up with annual report voluntary disclosures in line with Global Responsibility Initiative (GRI) guidelines or as per the Business Responsibility Framework (BRR) introduced by the Securities and Exchange Board of India (SEBI) under its clause 55 of listing agreement. Sahore (2015a) found that in the year 2011–12, only one company in the identified set came up with complete information as per these guidelines. In the year 2012–13, once again from a selected sample of 40 companies out of the set of 100 companies identified for the current study came up with business responsibility reporting as a part of its annual report disclosures. However, by the year 2013–14, the information disclosures improved a bit. Later in the year 2014–15, it was observed that firms have started to respond to the policy introduced by the government and clause 55 of the listing agreement introduced by the Indian regulator SEBI.

The current study's main focus is to find whether or not the firm characteristics of selected CNX 100 entities explain voluntary corporate disclosures both financial as well as non-financial required for meeting the accounting information needs of the users in the Indian context. The literature-based empirical evidence and evidence collected from the findings of this study echoed mixed responses to these firm characteristics. However, disclosures showing improvements by way of improving trend of regression coefficients in later years, i.e., in the post-policy period is a takeaway for policymakers to come up with constructive policies which are in the larger interest of information users as well as businesses. The encouragement to businesses to disclose voluntarily through policy push to make disclosures appear business led as against regulation led is a win-win situation for all, i.e., the businesses, the diverse users, and the regulators. The study has relevance and implications for the diverse set of users of accounting information of a business entity, be it the investors, shareholders, employees, society, suppliers, lenders, communities and non-government organizations (NGOs), government bodies, and taxation authorities or regulators. It is because of their information needs various perspectives in accounting disclosures have emerged in the literature and regulators all over the world are making sure to keep their interest intact by ensuring timely information about the businesses not just by way of mandatory disclosures but by way plethora of voluntary disclosures. Such disclosures are designed keeping in mind the investor, supplier, lender, society, community, corporate social responsibility, customer, environmental and strategic perspectives in mind.

Firstly, this study attempts to underpin the nature and extent of information shared by businesses, i.e., voluntary financial and non-financial information. Secondly, it tries to explain how and through which medium this information is communicated, i.e., through mandatory and voluntary annual report disclosures, and how these are effectively communicated through a common medium like a corporate annual report. Thirdly, it seeks to find how these information disclosures, as explained in this study as voluntary disclosures, represented by voluntary total disclosures (VTD), voluntary financial disclosures (VFD), and voluntary non-financial disclosures (VNFD) vary on the basis of firm characteristics like size, age, and listing status.

2. LITERATURE REVIEW

Based on the studies available in the literature, disclosures essentially are deemed as a function of firm characteristics. The most widely studied characteristics across the literature are age, size, affiliation, and industry. Though there are underlying theories that justify such need for disclosures to either signal good health of the business or to be politically correct by ensuring necessary disclosures are in place as per the regulations or on the hindsight to be legitimate from the point of view of the sustainability of the firm. Nevertheless the seminal concern remains the reduction of information asymmetry to arrest agency costs. Given this milieu, firms come up with a variety of disclosures including the mandatory as well as voluntary ones associated with both financial and a wide range of non-financial related to areas under corporate social responsibility, such as ESG aspects.

The two important works of Jensen and Meckling (1976) and Fama and Jensen (1983) have very categorically addressed the issues related to information asymmetry caused through agency problems in firms. Information asymmetry leads to

stakeholders being devoid of important information. Miller (2009) emphasized the information needs of the stakeholders and the role of legislation in that. Companies should not just disclose financial information but also information that is forward-looking in nature keeping in mind the stakeholder perspective. Suttipun and Stanton (2012) focused on environmental disclosures as per the need and requirements of stakeholders. Stakeholders are the consumers of disclosures by the firms, they do not just provide resources to the firm but are also interested in knowing how these resources are utilized by the firms. At the same time, identifying and managing relationships with stakeholders is an important organizational activity (Friedman & Miles, 2006). Here, these "stakeholders" are nothing but the users of accounting information. This information, however, may be financial or non-financial; disclosed voluntarily or mandatorily by a firm.

According to Lang and Ludholm (1993), analysts are primary users of information disclosures by firms. It is on the opinions of these analysts various stakeholders base their decisions to interact with firms in various capacities. Nevertheless, regulatory bodies, taxation authorities, investors, suppliers, creditors, lenders also look forward to the opinions of analysts so that that they can make informed decisions. Botosan (1997) argued that a mere level of disclosures is not sufficient but it is the type of disclosures that matter. The significance of disclosing a certain type of information also depends upon who are the most engrossed stakeholders of the firm. For example, forward-looking and non-financial information disclosures are sought from firms with low analyst following, and disclosure related to the history and background of the firm are expected from firms with high analyst followings. These voluntary disclosures generate a good amount of management accounting information meant for internal use only but the information expectations of external stakeholders regarding disclosure of social and environmental information cannot be undermined. Edwards and Smith (1996) studied voluntary and mandatory disclosures related to segmental reporting and drew inferences about competitive disadvantage and other costs of information disclosures.

However, the nature and quantum of disclosures by a firm to a greater extent depend upon the characteristics of a firm. Such disclosures vary amongst firms as per their characteristics. Cooke (1989) studied quotation status, parent company relationship, annual sales, total asset size, number of shareholders and found "size" as represented by total assets and total sales, and listing status of a company to be significant in explaining the extent corporate disclosures of a firm. It was further inferred that the capital needs and foreign regulation led to more disclosures in the case of companies with a higher level of disclosures and left a gap to study these motives, such as regulation, in different economies and settings. Lang and Lundholm (1993) found that disclosures were larger for larger in size firms.

Raffournier (1995) studied the determinants of voluntary disclosures and found size and internationality to be significant in explaining the level of disclosures as per European Union directives by these firms. Patton and Zelenka (1997) studied financial disclosures of 50 companies listed on the Prague Stock Exchange and found stock exchange listing status to be significant in explaining disclosures by a firm. Craig and Diga (1998) also studied the size of a firm and the foreign origin of a firm and found that non-financial and social disclosures were superficially disclosed by them. There were a reasonable amount of mandatory disclosures, however, there was considerable reluctance regarding disclosures related to labour and employment, environmental activities. Cohen (1998) studied positive theories based on incentives as well as normative theories based on punishment" to find what impedes environmental disclosures by a firm. Chen and Jaggi (2000) found the size of the firm represented by total assets, total sales, and market value were positively associated with disclosures. Mathews (2000) studied disclosure literature over a period of 25 years (1970–1995) and specifically studied social and environmental accounting. It was observed that a lot of management accounting information is generated for the internal use of the management but not for the other stakeholders of a firm.

The study of Khanna (2001) provides a glimpse of non-mandatory approaches and their implications towards economic and environmental performance. A shift was also observed towards environment protection disclosures moving away from being regulation-driven to being self-regulated. Robb, Single, and Zarzeski (2001) studied forward-looking information disclosures comprising of the environment around the company, strategy, trends, and historical information comprising of the environment of the company, production, and customers. It was found that companies with a global focus disclosed more while industry and country were insignificant variables. Bushman and Smith (2003) also studied corporate transparency at the country level. Ho and Wong (2003) studied if current disclosures were effective to meet the information needs of investors and suggested the preparers focus on investor relations, development of industry-specific disclosure guidelines, and increased voluntary disclosures. Kothari and Short (2003) also suggested focusing on industry and sectors to deepen the potential of disclosures. Al-Razeen and Karbhari (2004) suggested that the gap between what is mandated and what is required can be bridged by increased voluntary disclosures as more financial disclosures are sought after by the shareholders, institutional investors, and foreign investors. Lakhal (2005) also found that in the case of French firms with voluntary earnings disclosures, the ability to attract higher foreign institutional investor ownership was more. Nurhayati, Brown, and Tower (2006) found that the size of the firm and type of the industry explains better the extent of natural environmental disclosures in Indonesian companies than others. This mattered most because the larger firms are more under the public scanner and are subjected to regulatory scrutiny. Hossain (2008) found that the size of the firm positively affects the extent of disclosures, however, the age of the firm was found to be insignificant. Brammer and Pavelin (2008) found that the larger firms (size) in the sectors related to environmental concerns that have a high

quality of disclosures and media exposure had no role to play in ensuring environmental disclosures. Zhang (2008) studied environmental issues faced by the Asian region and emphasized the right policy mix backed by local, national, and regional cooperation towards maintaining environmental quality, hence, there is a future scope studying environmental disclosures in various Asian countries. Abeysekera (2008) studied voluntary employee disclosers in the annual reports of top 30 companies of Sri Lanka and found that they add to building human capital in the organization, hence, they be studied further. Hossain and Hammami (2009) studied company-specific factors that are significant in explaining the extent of voluntary disclosures such as age, size, and asset-in-place which help in enhanced voluntary disclosures in Qatar. Yuen, Liu, Zhang, and Lu (2009) studied disclosures and size (proxy total sales) from the website of the Shenzhen Stock Exchange (SHSE) across seven industry categories and found empirical evidence that a firm's size and stakeholder's interests are significantly related to voluntary disclosures. Sarkar (2011) studied the mandatory and voluntary disclosures practices of selected companies listed in India and found a marked improvement in the quality and quantity of reporting but the concern remained the variability in information across these companies. Hence, there is a huge scope for further studies in this direction to have a check on ambiguity in the name of diversity of information provided to stakeholders. Galani, Gravas, and Stravropoulos (2011) studied environmental disclosures of companies in Greece with respect to their firm sizes and found a positive relation between the size of the firms and their level of environmental disclosures, however, the listing status failed to explain the level of environmental disclosures. Bhasin (2012) found a slight improvement in the disclosures yet the disclosures were insufficient and poor for listed corporations selected on the basis of average sales (a proxy for size) across four industry sectors in India. Binh (2012) studied the latent gap between financial analysts' requirements and financial managers' viewpoints of information disclosure with respect to what was actually disclosed in the annual reports of Vietnamese non-financial listed companies. Hence, there is a grave need to enhance the extent of disclosures in annual reports in order to bridge the gap between the information these stakeholders require and what is reported. It was specifically pointed out that "further research is needed to determine the factors that may influence voluntary information disclosure level in annual reports". Oba and Fodio (2012) studied environmental disclosures in Nigeria for businesses in two industry types, i.e., Oil & Natural Gas and Construction, and emphasized the need for the existence of a formal framework to increase the comprehensiveness of disclosures. Chakrouni and Matoussi (2012) found that firms with more mandatory disclosures disclosed more on a voluntary basis also. Suttipun and Stanton (2012) found that stakeholder theory can be used to explain environmental disclosures in developed and developing countries however in the case of Thailand it was found that disclosures were made only if they are mandatory. Bhayani (2012) studied the corporate disclosure practices of listed non-financial firms in India and found firm characteristics like size and profitability to be significant and age and residential status to be non-significant in explaining the quantum of corporate disclosures. Varghese (2012) studied annual report disclosure practices of Indian firms by developing a voluntary disclosure index and found firm characteristics like size, profitability, and listing status to be positively related to the extent of disclosures. Yeganeh and Barzegar (2014) studied certain financial performance parameters other independent variables such as size, financial leverage, industry, age, and financial risk and found a significant relationship between corporate social responsibility disclosures and financial performance of a business both on accounting and market-based parameters in Tehran Stock Exchange. Hung, Shi, and Wang (2015) studied a variety of stakeholder perspective voluntary disclosures be it corporate social responsibility, employee, governance, environment, or community-related. They mooted that policy interventions are important to observe the effect of disclosures related to financial aspects as well as non-financial aspects of the firm. Sahore (2015b) examined corporate social responsibility disclosures and their linkage with firm characteristics and found the model to be significant for the size and listing status of the firm.

Contrary to the above studies, Russell (2015) found that enhanced disclosures done by firms with issues of information asymmetry have further aggravated the problem. Abraham, Marston, and Jones (2015) studied the voluntary and mandatory disclosure compliance by Indian companies. The study has implications for policymakers and regulators as it establishes that the presence of policy and regulators acts as an additional incentive for Indian companies to disclose more. Bravo (2016) studied financial forward-looking annual report disclosures and linked them to a firm's reputation besides firm characteristics. Sahore and Verma (2017) studied voluntary disclosures both financial, as well as non-financial, by Indian CNX 100 companies and found in the later years under the study that disclosures have significantly started responding to stock returns. However, the study left a gap to further explore if firm characteristics played a significant role in disclosures done by firms in the sample.

Banupriya and Vethirajan (2018) have highlighted in their study the role of corporate disclosures in both voluntary, as well as mandatory, of both financial, as well as non-financial in nature, to accomplish the financial reporting objective of better resource allocation and economic decision making by users of this information. These disclosures have evolved over a period of time with respect to changing economic, political, and social objectives of financial reporting. Jessop, Wilson, Bardecki, and Searcy (2019) found in their study that corporate environmental disclosures by Indian agrochemical companies in their annual and stand-alone sustainability reports varied significantly with respect to their quantity, quality, and diversity in the post-policy period of Companies Act 2013. Rep, Žager, and Oliveira (2019) found that non-financial information is important for firm stakeholders and first-line investors. Harmonization of European Union directives has led to reasonable level of

stakeholder disclosures. The paper hypothesizes and confirms that such disclosures are more by larger firms both by virtue of total assets and total revenue.

Aggarwal and Verma (2020) studied that in the field of accounting voluntary information disclosures have been receiving a lot of attention as they bridge the gap between what is mandatory and what is sought by the stakeholders. Due to the concentration of literature in this area majorly being on the linkage of company characteristics and levels of disclosures it becomes pertinent to study this aspect before looking into other aspects. With the enhanced pressure from market forces to improve reporting practices, global harmonization of the accounting information disclosed by companies listed on international stock exchanges has been attempted. The argument, however, still remains whether the quality and sufficiency of disclosures depends upon firm attributes or is it a function of newer legislation brought in place by national and international bodies. This study found that firm attributes like size by way of fixed assets and net sales, market cap to be positively correlated and significantly impacting disclosures, however, age though was correlated but was insignificant in explaining disclosures. The listing status was also insignificant in explaining the extent of disclosures.

3. METHODOLOGY

3.1. Population and sample

A representative sample of publicly-listed companies is taken on the basis of the established index of the National Stock Exchange (NSE) of India. The unit of study is a firm that is a listed corporate entity included in CNX 100 companies index. As per The World Bank, the listed domestic companies in India were 5835 in 2015. The sample size of 100 companies taken under this study is around 1.71% of the total listed domestic companies in India (The World Bank, 2016). CNX 100 is a diversified 100 stock index accounting for 38 sectors of the economy. It represents 77% of the free-float market capitalization of the stocks listed on NSE. The total trade value of CNX 100 is around 61% of the total traded value of all stocks on NSE.

3.2. Data collection sources and research tools

The data was collected for a period of five years starting from the financial year 2010–11 till 2014–15. Data has been collected primarily from secondary sources for this study. Data related to voluntary disclosure items were collected from the published annual reports of the sample firms through content analysis in order to check for the presence of disclosures. While data related to firm characteristics have been extracted from industry databases like CMIE Prowess, Ace Equity, Money Control.com, and Value Research online.

Most of the accounting disclosure papers make use of transformed, dependent, and independent variables which are proxies of underlying constructs to achieve statistically significant relations between them. The regression analysis has been commonly used across a good number of such studies, though multiple approaches across methods are recommended to achieve robust results (Cooke, 1998). Therefore, correlation and regression have been used to analyze the secondary data. The calculation of the coefficient of correlation has been done by using both parametric and non-parametric tests. Parametric Pearsonian coefficient of correlation was calculated assuming a normal distribution and non-parametric Kendall's Tau-b was calculated which happens to be a distribution-independent test. Correlation and univariate linear regression approach are used when an association is sought between variables and also there is a need to measure the strength of that association. Linearity is assumed to filter out the numerous options under assumptions of non-linearity. Hypothesis testing for this kind of variation can be done to see if the association is significant or not in a setting where measurement variables can be identified as dependent and independent. This assists in the establishment of a causal relationship (McDonald, 2014). Moreover, the t-test has been used where appropriate.

3.3. Dependent and independent variables

Based on the review of the literature (Haniffa & Cooke, 2005; Hassan & Marston, 2010; Bushman & Smith, 2003), certain methodological aspects of the study of corporate disclosure appeared which helped in research design and selection of research tools for the current study. Disclosure, as a variable, is measured either through observable characteristics or with the help of some variables which are assumed to have some relationship with disclosures. The widely used proxies are of two types, i.e., proxies without recourse to original disclosure vehicle and proxies with recourse to original disclosure vehicle. The current study makes use of the second type of proxy wherein manual content analysis of annual reports of the companies was done for coding the data in order to generate disclosure scores as per a pre-defined disclosure index (Cooke, 1989; Raffournier, 1995; Craig & Diga, 1998; Hossain & Hammami, 2009; Hossain, 2008; Sahore & Verma, 2017).

The study uses three disclosure-based scores, i.e., voluntary total disclosure (VTD) score, voluntary financial disclosure (VFD) score, and voluntary non-financial disclosure (VNFD) score. The composite index consisted of 140 items of disclosure which have 29 voluntary financial items and 111 voluntary non-financial items. Following are the formulas for the calculation of required scores:

$$VTD = Sum\ of\ total\ voluntary\ disclosure\ by\ a\ company\ in\ a\ particular\ year\ /Total\ No.of\ disclosures\ in\ that\ year\ (140) \quad (1)$$

$$VFD = Sum\ of\ total\ voluntary\ financial\ disclosures\ by\ a\ company\ in\ a\ particular\ year\ /\ Total\ No.of\ disclosures\ in\ that\ year\ (29) \quad (2)$$

$$VNFD = Sum\ of\ total\ voluntary\ non\text{-}financial\ disclosures\ by\ a\ company\ in\ a\ particular\ year\ /\ Total\ No.of\ disclosures\ in\ that\ year\ (111) \quad (3)$$

Table 1. Disclosure index details

S. No.	Category of disclosure	No. of items
1	Voluntary total disclosure	140 (29 + 111)
2	Voluntary financial disclosure	29
3	Voluntary non-financial disclosure	111
Details of voluntary non-financial disclosure — Stakeholder perspective disclosures		
3.1	Company background	13
3.2	Management & shareholder disclosure	15
3.3	Creditor and investor perspective: Strategic and forward looking information also information about intangible assets	21
3.4	The internal process perspective, innovation and learning perspective	4
3.5	The customer perspective	4
3.6	The employee perspective	7
3.7	The supplier perspective	8
3.8	The environment perspective	14
3.9	The social perspective	7
3.10	The CSR & sustainability perspective	18
	Total items	111

Source: Here, disclosure index categorization and the number of items to find scores have been adapted as it is from Sahore and Verma (2017).

Table 2. Independent variables

S. No.	Firm characteristic	Literature mapping	Description	Nature of data
1	Age (Log Age)	Hossain (2008), Hossain and Hammami (2009), Bhayani (2012), Yeganeh and Barzegar (2014)	Number of years since inception	Scale
2	Size (Log Size)	Cooke (1989), Lang and Lundholm (1993), Raffournier (1995), Patton and Zelenka (1997), Craig and Diga (1998), Chen and Jaggi (2000), Haniffa and Cooke (2005), Nurhayati et al. (2006), Hossain (2008), Hossain and Hammami (2009), Brammer and Pavelin (2008), Yuen et al. (2009), Galani et al. (2011), Binh (2012), Bhayani (2012), Varghese (2012), Yeganeh and Barzegar (2014), Basuony, Mohamed, and Elbayoumi (2014)	Total assets and total sales	Scale
3	Listing status listing of a company on an Indian exchange or a foreign exchange	Cooke (1989), Patton and Zelenka (1997), Haniffa and Cooke (2005), Galani et al. (2011), Bhayani (2012), Varghese (2012)	If a company is listed only on an Indian stock exchange, then it is coded as 0 and if it is additionally listed on an international stock exchange, then it is coded 1	Nominal

4. ANALYSIS AND FINDINGS

4.1. Analysis of impact of firm characteristics on extent of corporate disclosures

4.1.1. Age of a firm and disclosures (VTD, VFD, and VNFD)

Using the two-way approach to test the significance or otherwise of effect (if any) of age of the firm on extent of accounting disclosures, firstly, correlations between the two variables were calculated for the following hypothesis:

$H1_0$ (null hypothesis): $\rho = 0$, i.e., there is no significant correlation between the age of a firm and VTD, VFD, and VNFD.

Results of testing the above correlation-based hypotheses are contained below in Table 3. The findings indicate that the correlation between the variables is weak. This is evident from the fact that corporate disclosure is related to various other variables. However, one important finding is that only VTD and VNFD exhibited statistically significant correlations with age of firm and that too only in the first two years of study. So, the correlation of VTD and VNFD with age of firm was absent as time went by. VFD did not have any significant correlation with age of the firm in any of the years under study (see Table 3).

Table 3. Age-correlation approach

Year	Indices	Pearson's product-moment coefficient of correlation		Kendall's Tau-b	
		Coefficient	P-value	Coefficient	P-value
1	VTD	0.129	0.202	0.136	0.050
	VFD	-0.018	0.861	0.025	0.727
	VNFD	0.152	0.133	0.138	0.045
2	VTD	0.144	0.152	0.157	0.023
	VFD	0.028	0.779	0.055	0.433
	VNFD	0.156	0.121	0.161	0.019
3	VTD	0.053	0.605	0.071	0.304
	VFD	0.082	0.420	0.109	0.123
	VNFD	0.041	0.686	0.045	0.513
4	VTD	0.056	0.583	0.073	0.290
	VFD	0.019	0.851	0.054	0.439
	VNFD	0.026	0.799	0.031	0.657
5	VTD	0.055	0.587	0.060	0.382
	VFD	0.095	0.351	0.108	0.127
	VNFD	0.041	0.688	0.035	0.609

Secondly, the regression approach was used to find if the changes in extent of corporate disclosure were explained by age of the firm. Corporate disclosure, represented by the three indices developed in this study, i.e., VTD, VFD, and VNFD, are taken to be the dependent variables and age of the firm is considered to be the predictor variable as in the following hypothesis:

$H2_0$ (null hypothesis): $\beta = 0$, i.e., the coefficient of the age of a firm is not significant for VTD, VFD, and VNFD.

Results of testing the hypotheses are contained in Table 4.

Table 4. Age-regression approach

Year	Firm characteristic	Indices	R^2	ANOVA		β	
				F-statistic	P-value	T-statistic	P-value
1	Age	VTD	0.017	1.65	0.202	1.285	0.202
		VFD	0.000	0.031	0.861	-0.175	0.861
		VNFD	0.023	2.296	0.133	1.515	0.133
2	Age	VTD	0.021	2.083	0.152	1.443	0.152
		VFD	0.001	0.079	0.779	0.281	0.779
		VNFD	0.024	2.444	0.121	1.563	0.121
3	Age	VTD	0.003	0.27	0.605	0.519	0.605
		VFD	0.007	0.656	0.42	0.81	0.42
		VNFD	0.002	0.164	0.686	0.405	0.686
4	Age	VTD	0.003	0.303	0.583	0.551	0.583
		VFD	0	0.035	0.851	0.188	0.851
		VNFD	0.001	0.065	0.799	0.255	0.799
5	Age	VTD	0.003	0.297	0.587	0.545	0.587
		VFD	0.009	0.878	0.351	0.937	0.351
		VNFD	0.002	0.163	0.688	0.403	0.688

For VTD, the R^2 values fell from 2% in the first two years to 0.3% in all of the three later years. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically insignificant for all the years under study. For VFD, the R^2 values varied between zero and 0.9% between the first and the fifth years. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically non-significant for all the years under study. For VNFD, the R^2 values fell from 2% in the first two years to 0.2% in all of the three later years. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically non-significant for all the years under study. The very low values of β across indices indicated the presence of various other predictor variables which affect corporate disclosure.

The findings of the regression studies corroborated the findings of the correlation studies. The correlation between the age of the firm and disclosures of firm was weak *ab-initio*. The third year of study was marked by a few disclosure related legislations introduced specifically for listed companies; age of firm lost its significance. Policy intervention might have rendered firm characteristic like age of the firm redundant. Regression also exhibited very low values of β indicating that the presence of various other predictor variables which affect corporate disclosure. The study finding confirmed with the findings of Hossain (2008), i.e., there is no relationship of disclosures with the age of the firm.

4.1.2. Size of a firm by way of total sales and total assets and disclosures (VTD, VFD, and VNFD)

Size of a firm by way of total sales and disclosures (VTD, VFD, and VNFD)

A two-way approach was resorted to test the significance or otherwise of effect (if any) of size of the firm on extent of corporate disclosure. Firstly, correlations between the variables were calculated through following hypothesis:

$H3_0$ (null hypothesis): $\rho = 0$, i.e., there is no significant correlation between the size (as represented by total assets) of a firm and VTD, VFD, and VNFD.

The results indicate that the correlation between the variables was weak. However, one important finding is that VTD, VFD, and VNFD exhibited near to statistically significant correlations with size of firm as represented by total sales of the firm only in the later years under the study, to be precise in the 3rd and 4th years (see Table 5).

Table 5. Size (total sales): Correlation approach

Year	*Firm characteristic size by way of total sales*	*Indices*	*Pearson's product-moment coefficient of correlation*		*Kendall's Tau-b*	
			Coefficient	*P-value*	*Coefficient*	*P-value*
1	Total sales	VTD	0.021	0.836	0.027	0.69
		VFD	0.072	0.481	-0.067	0.342
		VNFD	0.007	0.942	0.036	0.601
2	Total sales	VTD	0.044	0.665	0.082	0.229
		VFD	0.093	0.355	-0.063	0.368
		VNFD	0.03	0.766	0.105	0.123
3	Total sales	VTD	0.184	0.068	0.1	0.143
		VFD	0.162	0.108	0.007	0.924
		VNFD	0.17	0.09	0.116	0.091
4	Total sales	VTD	0.192	0.055	0.11	0.109
		VFD	0.195	0.052	-0.006	0.931
		VNFD	0.118	0.243	0.078	0.254
5	Total sales	VTD	0.092	0.363	0.037	0.584
		VFD	0.06	0.553	-0.06	0.389
		VNFD	0.089	0.379	0.044	0.516

Secondly, the regression approach was used to find if the changes in the extent of corporate disclosures (VTD, VFD, and VNFD) were explained by size of the firm as represented by its total sales (predictor variable) by considering following hypothesis.

$H4_0$ (null hypothesis): $\beta = 0$, i.e., the coefficient of the size (as represented by total sales) of a firm is not significant for VTD, VFD, and VNFD.

The results of testing the hypotheses are contained in Table 6.

Table 6. Size (total sales): Regression approach

Year	*Firm characteristic size by way of total sales*	*Indices*	*R^2*	*β and f-statistic*	
				β-value	*P-value of β and f-statistic*
1	Total sales	VTD	0.000	0.000	0.836
		VFD	0.005	0.000	0.481
		VNFD	0.000	0.000	0.942
2	Total sales	VTD	0.002	0.000	0.665
		VFD	0.009	0.000	0.355
		VNFD	0.001	0.000	0.766
3	Total sales	VTD	0.034	0.000	0.068
		VFD	0.026	0.000	0.108
		VNFD	0.029	0.000	0.09
4	Total sales	VTD	0.037	0.000	0.055
		VFD	0.038	0.000	0.052
		VNFD	0.014	0.000	0.243
5	Total sales	VTD	0.008	0.000	0.363
		VFD	0.004	0.000	0.553
		VNFD	0.008	0.000	0.379

For VTD, the R^2 values improved from 0% in the first year, to 3.7% in fourth year, but once again it fell to a lower value 0.8%. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically insignificant for all the years under study, however, in the fourth year, it came closer to significance. For VFD, the R^2 values varied between 0.05% and 3.8% between the first and the fourth year. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically insignificant for all the years under study except in the fourth year it almost became significant. For VNFD, the R^2 values improved from 0% in the first year to 0.08% in the fifth year. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically insignificant for all the years under study.

The findings of the regression studies corroborated the findings of the correlation studies. The very low values of β indicate that the presence of various other predictor variables which affect corporate disclosure.

Size of a firm by way of total assets and disclosures (VTD, VFD, and VNFD)

A two-way approach was resorted to test the significance or otherwise of effect (if any) of the size of the firm as represented by its total assets on the extent of corporate disclosure.

Firstly, correlations between the variables were found considering the following hypothesis:

$H5_0$ (null hypothesis): $\rho = 0$, i.e., there is no significant correlation between the size (as represented by total sales) of a firm and VTD, VFD, and VNFD.

The results of testing the hypotheses are contained in Table 7. VTD was found to be correlated with the size of the firm as represented by the total assets of the firm negatively for the first two years. They were positively correlated in third. Once again, in the fourth year, their association became negative which reversed to positive in the fifth year. VFD is found to be negatively correlated with the size of the firm as represented by total assets all throughout five years. The correlation was found to be statistically insignificant in all the five years under study under both the assumptions of normality and non-normality except in case of first year under the assumption of non-normality. VNFD is found to have weak correlation with size of firm as represented by total assets for all the five years and in fifth year but became negative under the assumption of normality. Under the assumption of non-normality the correlation was negative in first two years and from 3rd to 5th years it was positive. Moreover, the correlation was found to be statistically insignificant under both the assumptions in all the five years under study.

The findings indicate that the correlation between the variables was weak. They were correlated to a very low extent for all the five years. On assuming normality, none of the correlations was found to be statistically significant in any of the years under study. This is evident from the fact that corporate disclosure is related to various other variables.

Table 7. Size (total assets): Correlation approach

Year	*Firm characteristic size by way of total assets*	*Indices*	*Pearson's product-moment coefficient of correlation*		*Kendall's Tau-b*	
			Coefficient	*P-value*	*Coefficient*	*P-value*
1	Total assets	VTD	-0.021	0.840	-0.100	0.144
		VFD	-0.146	0.148	-0.147	0.036
		VNFD	0.010	0.924	-0.076	0.268
2	Total assets	VTD	-0.012	0.905	-0.004	0.957
		VFD	-0.101	0.317	-0.056	0.421
		VNFD	0.007	0.945	-0.056	0.825
3	Total assets	VTD	0.019	0.853	0.024	0.730
		VFD	-0.110	0.277	-0.053	0.448
		VNFD	0.044	0.661	0.047	0.493
4	Total assets	VTD	-0.016	0.874	0.018	0.789
		VFD	-0.074	0.467	-0.073	0.300
		VNFD	0.052	0.608	0.012	0.860
5	Total assets	VTD	0.022	0.829	-0.029	0.672
		VFD	-0.043	0.670	-0.099	0.158
		VNFD	-0.033	0.742	0.000	0.995

Secondly, the regression approach was used to find out if the changes in the extent of corporate disclosure (VTD, VFND, and VNFD) were explained by the total assets (predictor variable) of the firm by using the following hypothesis:

$H6_0$ (null hypothesis): $\beta = 0$, i.e., the coefficient of the size (as represented by total assets) of a firm is not significant for VTD, VFND, and VNFD.

For VTD, the R^2 value was 0% across all five years. For VFD, the R^2 values varied between zero and 0.9% between the first and the fifth years. For VNFD, the R^2 values fell from 2.1% in the first year to 0.05% in the fifth year.

The findings of the regression studies corroborated the findings of the correlation studies. The β-values of the f-statistic and t-statistic of the regression coefficient were found to be statistically insignificant for all the years under study. The very low values of β indicate that the presence of various other predictor variables which affect corporate disclosure (see Table 8).

Table 8. Size (total assets): Regression approach

Year	*Firm characteristic size by way of total assets*	*Indices*	*R^2*	*β and f-statistic*	
				β-value	*P-value of β and f-statistic*
1	Total assets	VTD	0.000	0.000	0.840
		VFD	0.021	0.000	0.148
		VNFD	0.000	0.000	0.924
2	Total assets	VTD	0.000	0.000	0.905
		VFD	0.010	0.000	0.317
		VNFD	0.000	0.000	0.945
3	Total assets	VTD	0.000	0.000	0.853
		VFD	0.012	0.000	0.277
		VNFD	0.002	0.000	0.661
4	Total assets	VTD	0.000	0.000	0.874
		VFD	0.005	0.000	0.467
		VNFD	0.003	0.000	0.608
5	Total assets	VTD	0.000	0.000	0.829
		VFD	0.002	0.000	0.670
		VNFD	0.001	0.000	0.762

4.1.3. Listing status of a firm and disclosures (VTD, VFD, and VNFD)

In order to test whether listing in foreign stock exchanges or otherwise caused a difference in the extent of corporate disclosures to check if corporate disclosures were explained by the three indices VTD, VFD, and VNFD.

The listing or otherwise was nominal data whereas the indices were scale data. The methodology adopted was to test whether the mean of the indices between Indian companies listed in foreign exchanges and not listed in foreign exchanges differed significantly. As the number of Indian companies listed in foreign exchanges was less, a t-test was used to test the statistical significance of the mean values of the indices. The equality of variance of the data based on the listing status of Indian companies was not ensured, the t-test was carried out under both the assumptions, i.e., equality and inequality of variances. Further, a parallel test assuming non-normality of data, i.e., Levene's test was also used by considering the following hypotheses.

For equality of means:

$H7_0$ (null hypothesis): The difference in mean values of VTD, VFD, and VNFD is not significant for the listing status.

For equality of variances:

$H8_0$ (null hypothesis): The difference in variances of VTD, VFD, and VNFD is not significant for the listing status.

The t-statistic and f-statistic under Levene's test were all tested at a 5% level of significance (see Table 9).

Table 9. Listing status of a firm (Indian listing only or also on foreign exchange)

Year	Listing status	Statistic	VTD	VFD	VNFD
1	Index mean — Domestic listing		0.422	0.456	0.413
	Index mean — Foreign listing		0.390	0.412	0.384
	Levene's test	F-statistic	0.601	1.571	1.11
		P-value	0.440	0.213	0.295
	Assuming equality of variance	T-statistic	0.884	1.288	0.717
		P-value	0.379	0.201	0.475
	Assuming inequality of variance	T-statistic	0.939	1.38	0.764
		P-value	0.352	0.173	0.448
2	Index mean — Domestic listing		0.398	0.433	0.388
	Index mean — Foreign listing		0.448	0.462	0.444
	Levene's test	F-statistic	0.618	3.136	0.656
		P-value	0.434	0.08	0.42
	Assuming equality of variance	T-statistic	-1.333	-0.883	-1.313
		P-value	0.186	0.379	0.192
	Assuming inequality of variance	T-statistic	-1.453	-1.038	-1.406
		P-value	0.153	0.304	0.167
3	Index mean — Domestic listing		0.453	0.424	0.460
	Index mean — Foreign listing		0.476	0.435	0.486
	Levene's test	F-statistic	0.642	9.596	0.218
		P-value	0.425	0.003	0.642
	Assuming equality of variance	T-statistic	-0.604	-0.31	-0.607
		P-value	0.547	0.757	0.545
	Assuming inequality of variance	T-statistic	-0.644	-0.404	-0.628
		P-value	0.523	0.688	0.533
4	Index mean — Domestic listing		0.452	0.433	0.477
	Index mean — Foreign listing		0.476	0.422	0.473
	Levene's test	F-statistic	0.590	6.044	0.024
		P-value	0.444	0.016	0.876
	Assuming equality of variance	T-statistic	-0.634	0.317	0.087
		P-value	0.528	0.752	0.931
	Assuming inequality of variance	T-statistic	-0.673	0.393	0.089
		P-value	0.504	0.696	0.929
5	Index mean — Domestic listing		0.478	0.432	0.49
	Index mean — Foreign listing		0.461	0.435	0.467
	Levene's test	F-statistic	0.781	6.627	0.722
		P-value	0.379	0.012	0.398
	Assuming equality of variance	T-statistic	0.475	-0.106	0.547
		P-value	0.636	0.916	0.586
	Assuming inequality of variance	T-statistic	0.517	-0.136	0.593
		P-value	0.608	0.892	0.556

VTD — The f-statistic for all the years under study indicates that variances among the corporate disclosures do not differ significantly between companies listed in foreign stock exchanges and corporate not so listed in all the years under study.

Assuming equality of variances, the mean disclosure indices did not differ significantly in any of the five years between them. Assuming inequality of variances, the mean disclosure indices also did not differ significantly in any of the five years between them. These findings indicate that listing status did not affect the corporate disclosures as represented by VTD.

VFD — The f-statistic in the first two years under the study indicate no significant differences between variances of corporate disclosures based on

listing status. However, in the latter three years, corporate disclosure between companies listed in foreign stock exchanges proved to be more than that of companies not so listed with the difference being statistically significant. Assuming equality of variances, the mean disclosure indices do not differ significantly in any of the five years based on listing status. Assuming inequality of variances, the mean disclosure indices too did not differ significantly based on listing status. These findings indicated that listing status did not lead to a higher disclosure as represented by VFD in the later years.

VNFD — The f-statistic in all the five years under the study indicate no significant differences between variances of corporate disclosures of companies listed in foreign stock exchanges and companies not so listed.

Assuming equality of variances, the mean disclosure indices did not differ significantly in any of the five years based on listing status. Assuming inequality of variances also, the mean disclosure indices did not differ significantly in any of the five years. These findings indicate that listing status did not affect corporate disclosure as represented by VNFD.

5. CONCLUSION

Accounting as a field of study has always been understood to be a creator and provider of financial information relating to a business. In the vast field of management, accounting was almost assumed to be an underdog reporting only about the financial position of the business but with newer perspectives added to it by the initiatives of international bodies like the European Union and Indian regulators and policymakers like Securities and Exchange Board of India and Ministry of Corporate Affairs, it has been revived and rejuvenated as a field which churns out a lot of non-financial information like forward-looking information, sustainability, community, social and environmental perspectives of the business organization through the vehicle of annual reports. These changing perspectives have not just revived accounting and its role in the future growth of the business but have also led to businesses appearing more responsible to the users of accounting information. In order to find the relevance of firm characteristics viz-a-vis policy push causing enhanced disclosures, the study arrived at mixed results. The study found that there is no relationship of disclosures with age of the firm while the size of the firm as represented by total sales attaining significance in later years indicates size does impact the extent of disclosure, however, size by way of total assets doesn't concur with this result. It was further found that firms listed on a foreign exchange tend to disclose more however no significant mean differences were found.

Hence, the study found firm characteristics to be insignificant in leading corporations to disclose more, however, regression results improving and almost becoming significant in later years especially after the policy interventions in 2013 in India is an important takeaway from this study. The outcomes based on analysis of data found a common ground that firm characteristics aren't that significant in inducing the firms towards enhanced disclosures rather it is the policy initiatives that are pushing firms to reveal more about their businesses keeping in mind the diverse information needs of the users of accounting information. But one thing is for sure that there is definitely a trilogy between information needs of accounting information users, changing perspectives of accounting disclosures, and the role of policymakers and regulators. This trilogy can be further explored in future research studies. While the major limiting factors of the study are sample size and the possibility of coding error while coding the data.

Hence, this study helps to understand how reporting of accounting information is experiencing a shift because of the varied information needs of diverse accounting information users of a firm. The accounting information disclosures are influenced by firm characteristics like size and listing status of a firm however only when there are policies and regulations are at play as this leads to enhanced disclosures. Nevertheless, the fact remains the more businesses disclose, the less it is for the information seekers.

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