

INVESTIGATING SOCIAL AND ENVIRONMENTAL DISCLOSURE PRACTICES BY LISTED INDIAN TEXTILE FIRMS

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ABSTRACT

Using legitimacy theory, this study investigates the extent of social and environmental disclosure (SED) of Indian textile firms and the factors that explain such disclosure practices. Firm characteristics and corporate governance variables are incorporated as key predictors for these important disclosures. This study reveals a relatively low extent of 13.57% of SED in annual reports of Indian textile firms. The results show that firm size, international brand, audit committee independence, CEO duality, profitability, international certification obtained and year of reporting are statistically significant factors in explaining the variation of SED. This study provides a reasonable level of support for the legitimacy theory tenets in explaining social and environmental disclosure by textile firms in India. The study contributes to the extant literature by testing legitimacy theory in an under-researched country and industrial sector.

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INTRODUCTION

Since the 1970s, social and environmental accounting has become an important area of research (Beck and Laan, 2008). Societies around the world note its growing importance (Nurhayati, Brown, and Tower, 2006). The concept of social and environmental accounting through corporate social responsibility (CSR) practices has had a long history for Indian corporations (Chahoud et al., 2007; Ramesh and Mendes, 2014). Charity and philanthropy represent the beginning elements of CSR in India that are now expanding to other broader areas (Sundar, 2000). Well established family businesses (e.g. Tata, Birla, and Shriram) began to set up trusts and donated money to the society not only for religious charity purposes but also to provide much needed funds for institutions such as schools, hospitals, art galleries and museums (Chahoud et al., 2007; Mandal, 2012). This study investigates the extent of corporate social and environmental disclosure (SED) of Indian listed companies in the important textile and apparel industry (referred as the textile industry in this paper). Further, this study assesses key factors that explain such disclosure.

Manufacturing firms undoubtedly have a major impact on social and natural environment including people, communities, and the state of nature. There are many advantages that manufacturing activities provide to a society such as supplying products required for everyday life, the employment of a large number of people and the large contribution to tax revenue. Conversely, these firms may have a detrimental effect on the natural and social environment. One of the fastest growing sectors in most nations particularly in developing countries is the textile industry and India is a dominant leader in the worldwide textile industry (Corporate Catalyst India, 2010). The industry plays a vital role to the economy of India as it significantly contributes to industrial production (14%), Gross Domestic Product (GDP) (4%) and export earnings (17%) of the country (Ministry of Textile GOI, 2012).

The textile industry adversely affects the natural environment. The use of raw materials such as cotton, nylon, polyester and dyes as well the production process contributes to environmental degradation. For example, the production of nylon and polyester require the use of chemicals that release toxic waste and gas. Compared to other sectors, the textile industry might be considered as the most polluting sector as it uses large amount of chemicals, water and fossil fuel in its manufacturing process leading to soil, noise, water, and air pollution (Challa, 2011). There are concerns about health and safety in the textile industry as well. Yperen (2006) further highlights problems throughout the textile chain that endangers the workers such as accidents, fire and health risk caused by the use of pesticides and chemicals, and over-exposure to noise and dust during the manufacturing process. A well-known but under-reported social issue pertaining to the textile industry in India is the widespread practice of child labour. Child

labour is quite common in developing countries due to poverty and lack of law enforcement (Nordås, 2004). The child labour issue in the textile industry is exacerbated by the fact that the industry is labour-intensive and offers many entry-level jobs for unskilled labour (Nordås, 2004).

The irony of the textile industry is that its products are required for every-day life but such production can lead to harmful side effects to the natural and social environment. Following environmental, safety and health concerns about the textile industry, social issues such as child labour in India and the significance of India in terms of textile industry worldwide, this present study investigates the extent of social and environmental disclosure (SED) by firms in the textile industry in India and the factors that determine such disclosure practices. The present study contributes to existing literature in the area of SED by focussing on the textile industry in an emerging economy scenario. The present study contributes towards theoretical development by testing legitimacy theory in the context of textile industry in an emerging economy. Finally, the present study provides insights concerning disclosure practice by outlining the dearth in SED and outlining the implications of low levels of communication on future development of reporting standards and accountability.

The remainder of the paper is organized into five sections. Section two provides the literature review and hypotheses development. Section three outlines the research approach including sample selection of the study together with the measurement techniques for the dependent and independent variables. Section four highlights key results followed by concluding remarks in section five.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The choice of the most suitable theory or theories in explaining voluntary disclosures depends on the nature of information scrutinized and external parties considered (Cotter, Lokman, and Najah, 2011). In studies investigating non-financial disclosures such as social and environmental disclosures (SED) with no prior expectations of information required by stakeholders, legitimacy theory is considered very useful in explaining the factors behind such disclosure. Moreover, the most widely used theory in explaining corporate motivations to disclose social and environmental information is legitimacy theory (Deegan, 2002; Islam and Deegan, 2008; 2010). Legitimacy theory focuses on societal recognition of the adequacy of corporate social behaviour (Nasi et al., 1997). According to the legitimacy theory, entities can only survive if society believes that the entity is operating in accordance with the expectations of the society (Gray, Owen, and Adams, 1996). Therefore, entities need to portray the image that they are operating in such a manner to establish legitimacy (Henderson, Peirson, and Harris, 2004). Legitimacy threat takes place when there is a gap between societal expectations and the perception of the society that the entity is not fulfilling such expectations (Nasi et al., 1997). Voluntary communication can be used as an important mechanism to create a positive impression about the entity to the society leading to improving its legitimacy (Neu, Warsame, and Pedwell, 1998). Corporations often use social and environmental disclosure to counteract criticisms and gain societal support (Campbell, 2003).

Following legitimacy theory tenets, four hypotheses are developed based on previous literature to investigate the factors that influence social and environmental communication. First, past studies suggest a positive relationship between size of the entity and the extent of corporate voluntary disclosures (Meek, Roberts, and Gray, 1995; Hackston and Milne, 1996; Choi, 1999; Cormier and Gordon, 2001; Cormier and Magnan, 2003; Nurhayati, et al., 2006; Tower, Vu, and Scully, 2011). Larger firms have greater responsibility to provide information to their stakeholders (Cooke, 1991) as they have considerable effect on the society (Hackston and Milne, 1996). Legitimacy theory posits that larger companies are more subject to public scrutiny than the smaller ones. Hence, they are under greater pressure to disclose more information to the public to obtain broad-based support for continuing existence (Guthrie and Parker, 1989). Research findings from Indian non-textile companies report a positive association between firm size and voluntary disclosures (Hossain and Reaz, 2007; Das, 2009). Following the wide consensus in the extant literature in regard to a positive relationship between size of company and the extent of voluntary disclosures, the present study hypothesizes the following H1: *there is a positive association between firm size and the extent of social and environmental disclosure by Indian textile firms.*

Second, firms with international brand are likely to gain much more media attention (Fraser and Fraser, 2008) compared to those with no international brand. Past studies highlight the importance of media power to influence corporate disclosure practices by creating much greater public awareness that can lead to more disclosure by these companies (Brown and Deegan, 1998; Michelon, 2011) to maintain their positive image and legitimacy. Such communication also advertises the brand development to stakeholders including customers, investors, creditors and the society. A study by Mohamed, Jamaluddin and Jamil (2014) reported that managing risk of potential damage to brand reputation is one of the important drivers for Malaysian listed firms to conduct CSR practices. Well-known international brand-name companies such as Rip Curl, Guess, Puma, Levi's, Benetton and Mark & Spencer

commonly outsource their merchandise overseas. Such high profile companies generally prefer to manufacture their products in emerging economies including India as these countries have far lower labour costs, less stringent regulations and abundant raw materials. The brand-name companies may impose their values in regard to social and environmental activities and disclosure to their overseas suppliers in order to maintain their well-established image. Hence the following hypothesis is developed H2: *there is a positive association between international brand of textile products and the extent of social and environmental disclosure by Indian textile firms.*

Third, Khan (2010) highlights that effective corporate governance mechanisms are crucial to gain or maintain legitimacy with society. Literature suggests that the board of directors structure and composition is perceived as essential components of good corporate governance (Mallin, 2004) as they guide internal control mechanisms (Fama and Jensen, 1983) and serve as the highest committee in a corporation (Kent and Monem, 2008). Public perception of corporate legitimacy may strengthen if a corporation has a higher percentage of independent directors in the board composition (Nurhayati et al., 2006). More independence board of directors may demonstrate a more effective the board in supervising management including determining the extent of voluntary disclosure to the stakeholders. India regulators set out a list of demanding characteristics for listed firms' independent directors (SEBI, 2005). They state that independent directors are non-executive directors that are not related to promoters¹ or occupy management position, nor have business affairs with the company, and are not a substantial stockholder of the company. Indeed, directors who are more independent may have more power to encourage the management to disclose more voluntary information. Accordingly, a higher percentage of independent directors in the board may result in greater voluntary disclosures (Eng and Mak, 2003). In regard to the relationship between board independence and the extent of disclosure, some previous studies reported a positive association (e.g. Chen and Jaggi, 2000; Akhtaruddin et al., 2009) while others found a negative association (e.g. Haniffa and Cooke, 2002; Eng and Mak, 2003). Furthermore, some studies documented non-significant association (e.g. Nurhayati et al., 2006; Hossain and Reaz, 2007; Al-Shammari and Al-Sultan, 2010). Although past studies suggest inconsistent findings on the relationship between these two variables; the corporate governance literature highlights the likelihood of a positive association between the higher presence of independent directors on the board and the extent of disclosure, hence the following hypothesis is proposed H3: *there is a positive association between the board independence and the extent of social and environmental disclosure by Indian textile firms.*

Finally, past studies documented that ownership structure has also been reported as an important influential factor of disclosure practices (e.g. Haniffa and Cooke, 2002; Eng and Mak, 2003). Firms owned by more diffused owners are expected to have higher concerns for social and environmental issues compared to less diffused ones. This is because such diffused firms generally have wider interest groups. Some past studies reported a negative association between ownership concentration and voluntary disclosure practices (e.g. McKinnon and Dalimunthe, 1993) while others found that ownership concentration was not associated with such disclosure practices (e.g. Eng and Mak, 2003). Ownership structure of Indian corporations is generally highly concentrated with a domination of family business groups (Chakrabarti, Megginson, and Yadav, 2008; Bhaumik, Driffield, and Pal, 2010). Indian textile businesses have a high percentage of ownership concentration. In this study, the data reveals that there is 55.23% on average of promoter ownership. Ownership concentration is perceived as a signal of weak corporate governance (Heugens, Essen, and Oosterhout, 2009) that may lead to lower voluntary information being communicated in the annual reports. Hence, the following hypothesis is developed H4: *there is a negative association between the level of ownership concentration and the extent of social and environmental disclosure by Indian textile firms.*

RESEARCH APPROACH

Sample Selection

This study investigates the association between a blend of corporate characteristics and governance variables and the extent of social and environmental disclosure of Indian textile listed firms for the 2010, 2011, and 2012 financial years. The sample of this present study is drawn from the population of 319 textile firms listed on the Bombay Stock Exchange (BSE). This study randomly selects 100 textile firms for each year. However, after excluding potential outliers based on the value of Mahalanobis distance and Cook's distance (Tabachnick and Fidell, 2007), the final sample of this research is 95 textile firms per year resulting in a total of 285 firm-year observations.

Dependent Variable

The dependent variable in this study is the extent of social and environmental disclosure (SED) communication. These disclosures are measured by a unique and comprehensive disclosure index labelled as 'SEDI' that adopts the Global Reporting Initiative (GRI)'s apparel and footwear disclosure index (Global Reporting Initiative, 2008). This disclosure index consists of a total of 77 items (see Appendix). The SEDI can be grouped into the social category (45 items) and the environmental category (32 items). The social category is further sub-categorized by the GRI into 'labour practices and decent work' (17 items), 'human rights' (9 items), 'society' (10 items) and 'product responsibility' (9 items). This study calculates a disclosure score for each firm as the ratio by dividing the total SED score awarded to the firm and 77 items. All items included in the SEDI are assigned equal weighting as such approach may negate any subjectivity (Cooke, 1991; Meek et al., 1995).

Independent Variables

This study incorporates four independent variables: firm size, international brand, board independence and ownership concentration. Previous studies suggest that there is no theoretical ground for selecting a particular measure for firm size (Cooke, 1991; Hackston and Milne, 1996). Accordingly, in line with previous studies, the present study uses natural the logarithm of total assets as a proxy to firm size (e.g. Hackston and Milne, 1996; Cormier and Magnan, 2003; Hossain and Reaz, 2007). Brand-name can be measured as binary variable where a firm is categorised as a brand-name company if it uses a product brand (Fraser and Fraser, 2008). This present study measures international brand as a dichotomous variable. A company is considered to have international brand if it discloses in the annual report that it is a supplier for an internationally recognised brand of textile products. Prior studies measured board composition as the proportion of independent directors on the board (Ho and Wong, 2001; Nurhayati et al., 2006; Akhtaruddin et al., 2009; Khan, 2010; Khan, Muttakin, and Siddiqui, 2013). In line with these previous studies, this present study measures board independence as the proportion of independent non-executive directors to the total number of board directors. Ownership concentration can be measured by a number of different proxies. Some studies used the largest ten shareholders (e.g. Hossain, Tan, and Adams, 1994; Haniffa and Cooke, 2002), the largest twenty shareholders (e.g. Crasswell and Taylor, 1992; Eng and Mak, 2003), 5% or more shareholdings (e.g. Roberts, 1992) or a dichotomous coding (Reverte, 2009). In line with Jindal and Kumar (2012), this study uses promoter ownership to measure ownership concentration since such ownership type is prevalent in Indian textile firms. Jindal and Kumar (2012, 234) argue that in the Indian business context, "percentage of promoter shareholding would represent the true ownership concentration".

Control Variables

This study includes audit committee independence, CEO duality, profitability, international certification obtained and year as control variables. More independent audit committee potentially have more power to encourage management to communicate more information voluntarily. Relevant with Indian regulation², this study measures audit committee independence as dummy variable equals 1 if more than two-thirds of audit committee members are independent non-executive directors and 0 if otherwise. Chief Executive Officer (CEO) duality refers to a leadership structure where a single individual serves as both CEO and chairperson of the board in a firm. According to Khan et al. (2013), such a leadership structure may results in adverse governance issues. In line with previous studies (e.g. Al-Shammari and Al-Sultan, 2010; Khan et al., 2013), this study also measures CEO duality as dummy variable equals 1 if position of CEO and chairman occupied by same person and 0 if otherwise. Based on similar measurement used by previous studies for profitability (e.g. Nurhayati et al. 2006; Braco and Rodrigues 2008; Reverte 2009), this study defines profitability as net income (loss) divided by total assets (ROA). International certification may influence corporations obtained such certification in communicating more voluntary information including information on social and environmental issues. This study measures international certification obtained as dummy variable equals 1 if a firm obtained at least one of these certifications including ISO 9001, ISO 14001, SA 8000, OHSAS 18000 and Oeko-Tex® Certificate and 0 if otherwise. Year is incorporated as control variable measured as categorical variable equals 1 if 2010, 2011, or 2012 year and 0 if otherwise.

OLS Regression Model

The base ordinary least squares (OLS) regression model is estimated as follows:

$$SEDI_{it} = \beta_0 + \beta_1 FSIZE_{it} + \beta_2 BRAND_{it} + \beta_3 BIND_{it} + \beta_4 OWN_{it} + \beta_5 ACIND_{it} + \beta_6 DUAL_{it} + \beta_7 PROFIT_{it} + \beta_8 CERT_{it} + \beta_{9-11} YEAR_{it} + \varepsilon_{it}$$

where:

- SEDI = Extent of social and environmental disclosure by company i in period t;
- FSIZE = Natural log of total assets;
- BRAND = Supplier of international branded textile product (1 = yes, 0 = no);
- BIND = Number of independent non-executive board members divided by total number of board members;
- OWN = Promoter ownership;
- ACIND = More than two-thirds of audit committee members is independent non-executive directors (1 = yes, 0 = no);
- DUAL = Position of CEO and chairman occupied by same person (1 = yes, 0 = no);
- PROFIT = Net income (net loss) divided by total assets (ROA);
- CERT = International certification obtained (1 = yes, 0 = no);
- YEAR = Year (1 = 2010, 2011, or 2012 year, otherwise 0);
- ε = Error term.

RESULTS

Table 1 presents the descriptive statistics of SEDI and its sub-categories. The results suggest a low extent of SED communication by Indian textile firms with a mean of only 13.57%. Such low voluntary reporting is widely evidenced in other emerging countries such as Indonesia, Malaysia, Vietnam and Bangladesh (e.g. Nurhayati et al., 2006; Tower et al., 2011; Haji, 2012; Khan et al., 2013). Arguably, improvement on the extent of social and environmental information communicated to the stakeholders are crucial to the core industries including the textile industry as the Government of India strives to attract more foreign direct investment (FDI) to India (Indian Ministry of Textile GOI, 2012). Moreover, the FDI recently has been viewed as an important vehicle for the development of the Indian economy (Khan and Banerji, 2014; Sahu and Solarin, 2014). Comparison of disclosure between the social and environmental categories reveals that on average Indian textile firms report more environmental information with a mean of 17.98% as opposed to a lesser 10.44% for social information. A potential reason for this finding could be because firms operating in more environmentally sensitive industries, including the textile industry, tend to provide more environmental information than firms operating in less environmentally sensitive industries possibly to secure their legitimacy status. More detailed analysis on the social category reports that on average ‘labour practices and decent work’ sub-category is the most disclosed information (19.33%) while the ‘human rights’ is the least disclosed sub-category (0.38%).

TABLE 1 SOCIAL AND ENVIRONMENTAL DISCLOSURES INDEX (SEDI)

	Mean	Median	Standard Deviation	Minimum	Maximum
	%	%	%	%	%
SEDI (Overall)	13.57	12.99	5.44	1.30	33.77
Social category (45 items)	10.44	8.89	5.69	0.00	28.89
▪ Labour practices and decent work (17 items)	19.33	17.65	10.69	0.00	70.59
▪ Human rights (9 items)	0.38	0.00	2.05	0.00	11.11
▪ Society (10 items)	9.87	10.00	7.23	0.00	33.33
▪ Product responsibility (9 items)	4.67	0.00	5.80	0.00	22.22
Environmental category (32 items)	17.98	18.75	7.07	0.00	43.75

The descriptive statistics for independent and control variables is summarized in Table 2. The range between the lowest and the highest value of total assets with mean 8,792 million Rupees (approximately 162 million USD) indicates a wide dispersion in the sample. The mean board independence is about 54%. Ownership concentration of Indian textile listed firms are relatively high (55.23%) with the lowest and highest being about 13%

and 93%, respectively. The profitability measured by ROA is relatively low, less than 2%. This figure may indicate that the firms may have not fully recovered from the global financial crisis.

TABLE 2 DESCRIPTIVE STATISTICS FOR INDEPENDENT AND CONTROL VARIABLES

	Mean	Median	Standard Deviation	Minimum	Maximum
FSIZE (log)	9.42	9.43	0.68	7.68	11.26
FSIZE (total assets, in million Rupees)	8,792	2,696	18,894	48,753	182,384
BIND (%)	54.27	50.00	9.20	25.00	83.33
OWN (%)	55.23	54.99	14.94	12.96	93.15
PROFIT (%)	1.74	2.10	6.63	-27.27	24.22

Table 3 presents Pearson correlations between the dependent variable as measured by SEDI, independent and control variables. The correlation results show that firm size, international brand, audit committee independence, profitability, international certification obtained and year are positively related to social and environmental disclosure (SED) of Indian textile listed firms. CEO duality is negatively related to SED. International brand, audit committee independence and international certification obtained are positively related to firm size whereas ownership concentration and CEO duality are negatively related to firm size. From the correlation matrix, the coefficients do not exceed 0.70 and multicollinearity is therefore not considered an issue (Tabachnick and Fidell, 2007).

TABLE 3 PEARSON CORRELATIONS

	SEDI	FSIZE	BRAND	BIND	OWN	ACIND	DUAL	PROFIT	CERT	YEAR
SEDI	1.000									
FSIZE	0.694*	1.000								
BRAND	0.436*	0.365*	1.000							
BIND	-0.056	-0.049	0.046	1.000						
OWN	-0.030	-0.136**	0.071	0.080	1.000					
ACIND	0.240*	0.147**	0.168*	0.367*	-0.032	1.000				
DUAL	-0.265*	-0.212*	0.012	0.167*	0.010	-0.104	1.000			
PROFIT	0.177*	0.071	0.100	0.032	0.100	0.007	0.019	1.000		
CERT	0.409*	0.296*	0.413*	0.125**	0.002	0.058	-0.022	0.020	1.000	
YEAR	0.212*	0.055	0.050	-0.026	0.035	0.036	0.043	-0.147**	0.040	1.000

Note: Correlation * and ** are significant at 0.01 and 0.05 level (two-tailed), respectively.

Table 4 presents the results of the multiple regression analysis³. The results show that the regression model is highly significant and has reasonably high explanatory power with an adjusted R^2 of 0.625 explaining 62.5% of the variation in the SED communication. The regression results provide evidence that bigger firms disclose more extensive social and environmental information in their annual report ($p = 0.000$). This finding provides support to the past voluntary disclosure studies (e.g. Hackton and Milne, 2006; Nurhayati et al. 2006; Hossain and Reaz, 2007; Das, 2009; Tower et al., 2011). H1 is supported by the results. Indian firms that supply textile products to international brand-name companies disclose significantly more social and environmental information in their annual reports ($p = 0.007$). This finding implies that international brand-name companies may impose their values on social and environmental issues to their foreign suppliers. H2 is thus accepted.

Hypothesis H3, that proposes a positive association between the board independence and the extent of SED by Indian textile firms, is rejected. The regression results indicate a negative and statistically significant association between board independence and the extent of SED ($p = 0.021$). However, since the actual direction of the association between those two variables is opposite to the predicted direction; board independence is not a significant predictor of SED in annual reports from a legitimacy theory perspective. Although contrary to the expectation of legitimacy theory tenets, this finding is similar to previous studies conducted on emerging economies (e.g. Ho and Wong, 2001; Nurhayati et al., 2006; Hossain and Reaz, 2007; Tower et al., 2011; Haji, 2012). This contrary finding probably stems from the fact that Indian textile firms typically have a dual leadership structure that may impede the independence of board directors in directing the management to communicate more voluntary information in the annual reports. Finally, ownership concentration measured by the proportion shares owned by the

promoters is also an insignificant statistical predictor of the SED communication practices ($p = 0.555$). Hence, H4 is not supported. This finding aligns with the findings of some previous studies (e.g. Eng and Mak, 2003; Nurhayati et al., 2006; Reverte, 2009; Jindal and Kumar, 2012). The owners of concentrated firms may perceive that the overall corporate legitimacy of the firm remains sufficiently secure despite not extensively communicating such information. As Muttakin and Khan (2014) point out that concentrated family owners tend to less concern about public accountability and organisational legitimacy.

In regard to control variables, the results show that audit committee independence, profitability, international certification obtained and year are positive predictors for SED of Indian textile companies. CEO duality is found to be negatively associated with SED.

TABLE 4 OLS REGRESSION RESULTS

Variable	Expected sign	Beta	<i>t</i> -statistics	<i>p</i> -value
FSIZE	+	0.518	12.404	0.000*
BRAND	+	0.117	2.737	0.007*
BIND	+	-0.095	-2.317	0.021**
OWN	-	0.002	0.592	0.555
ACIND	+	0.146	3.582	0.000*
DUAL	-	-0.132	-3.429	0.001*
PROFIT	+	0.162	4.328	0.000*
CERT	+	0.203	4.934	0.000*
YEAR	+	0.190	5.120	0.000*

Adjusted $R^2 = 0.625$, F value = 53.575, F significance = 0.000

Notes: Association of * and ** are significant at 0.01 and 0.05 level (two-tailed), respectively. SED is the dependant variable in this regression.

CONCLUSIONS

Adopting legitimacy theory, this study investigates the extent of social and environmental disclosure (SED) by Indian textile firms and possible predictors behind such disclosure. This study reveals a relatively low extent of social and environmental information disclosed in the annual reports of these firms. On average, compared with social category, Indian textile listed firms communicate more environmental information in their annual reports. Analysis on the social category reveals the most and the least disclosed sub-categories being 'labour practices and decent work' and 'human rights' with the mean of about 19% and less than 1%, respectively.

The results show that firm size, international brand, audit committee independence, CEO duality, profitability, international certification obtained and year are significant factors in explaining the variation of SED practices. Board independence and ownership concentration are not predictors for the SED. Overall; this study provides a reasonable level of support for the legitimacy theory tenets in explaining SED by textile firms in India.

The findings that board independence is not a predictor for the SED leads to the suggestion that market regulators such as the Securities and Exchange Board of India (SEBI) need to not only outline guidelines for good corporate governance but also create mechanisms for ensuring the enforcement of such guidelines. The fact that Indian textile firms typically have a dual leadership structure may impede the independence of board directors of Indian textile firms in directing the management to disclose more social and environmental information in the annual reports. Accordingly, the mandatory requirement to have an independent non-executive chairman may serve as a positive influencing factor. Finally, this study offers empirical evidence in regard to corporate SED practices that may assist regulatory bodies to introduce more focused and effective non-financial disclosure guidelines and regulations. The limited extent of SED by Indian TA firms and the potential adverse impact of this sector to the country's social and natural environment have major implications for future development of social and environmental reporting standards for this sector.

The study is limited to four predictors and focuses solely on the textile listed companies. It is suggested that future studies in this area may explore the influence of corporate governance attributes such the board quality, board gender diversity and audit committee characteristics on SED. Another future research avenue, assessing other mediums for examining voluntary disclosure such as corporate websites and stand-alone sustainability reporting or comparing these alternative mediums to annual reports may reveal noteworthy insights on different practices of corporate communication on social and environmental information.

ENDNOTES

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¹ According to the Securities and Exchange Board of India (SEBI), the term promoter shall include: “(a) the person or persons who are in over-all control of the company; (b) the person or persons who are instrumental in the formulation of a plan or programme pursuant to which the securities are offered to the public; (c) the person or persons named in the prospectus as promoters” (Disclosure and Investor Protection Guidelines 2000, 53).

² The SEBI mandates that the audit committee should have a minimum of three members with two-thirds of the members being independent directors.

³ This study performs robustness checks to assess the reliability of our regression results which are reported in Table 4. First, we dropped all of the control variables from the regression model and obtain similar results for FSIZE, BRAND, BIND and OWN. Second, we entered the control variables consecutively into the regression model and our main findings remain unchanged. Third, we added each of our four independent variables successively into the regression model to test the stability of the regression coefficients and robustness of our results. On the whole, the regression coefficients for FSIZE, BRAND, BIND and OWN are stable and obtain similar results in the various regression models.

Appendix Social and Environmental Disclosure Index

Social Category

Labour practices and decent work (17 items)

1. Benefits provided for full-time employees
2. Training for employees
3. Health and safety topics covered or stated
4. Total workforce
5. Skills management programs to support employees' career
6. Regular performance and career reviews received by employees
7. Training to assist workforce or community members regarding diseases
8. Injury and fatalities
9. Total number and rate of employee turnover
10. Employees breakdown by age group and other indicators of diversity
11. Minimum notice period
12. Total workforce represented in formal health and safety committees
13. Percentage of foreign migrant workers as a proportion of total workforce
14. Percentage of employees covered by collective bargaining agreements
15. Percentage of workplaces with and without collective bargain agreement
16. Initiatives to prevent and reduce the occurrence of musculoskeletal diseases
17. Ratio of basic salary of men to women

Human rights (9 items)

18. Right to exercise freedom of association
19. Workforce training on policies and procedures concerning human rights
20. Total number of incidents of discrimination and action taken
21. Incidents of child labour and effort taken to eliminate
22. Incidents of violations involving rights of indigenous people and action taken
23. Significant investment agreements that include human rights clauses
24. Suppliers and contractors undergone screening on human rights
25. Incidents of forced or compulsory labour and effort taken to eliminate
26. Security personnel trained for policies or procedures concerning human rights

Society (10 items)

27. Impacts of operations on communities
28. Priorities in community investment strategy
29. Public policy positions and participation in public policy development
30. Fines and sanctions for non-compliance with laws and regulations
31. Actions taken in response to incidents of corruption
32. Financial and in-kind contributions to politicians and related institutions
33. Actions taken and outcomes for anti-trust and monopoly practices
34. Amount of investment in worker communities broken down by location
35. Business units analysed for risks related corruption
36. Employees trained in organisation's anti-corruption policies and procedures

Product Responsibility (9 items)

37. Customer satisfaction, including results of customer surveys
38. Health and safety impacts over life cycle of products
39. Incidents of non-compliance with regulations and codes concerning health and safety impacts of product and services
40. Type of product and service information required by procedures
41. Incidents of non-compliance with regulations and codes concerning product and service information and labelling
42. Programs for adherence laws and codes related to marketing communications
43. Incidents of non-compliance with regulations and codes concerning marketing communications.
44. Complaints regarding breaches of customer data losses and privacy
45. Fines for non-compliance with laws concerning provision and use of products

Environmental Category

1. Materials used
2. Recycled input materials
3. Environmentally preferable materials used
4. Indirect energy consumption
5. Direct energy consumption
6. Initiatives and results to provide energy efficient or renewable energy
7. Energy saved
8. Initiatives to reduce indirect energy consumption
9. Energy consumed from renewable sources
10. Water recycled and reused
11. Total water consumption by source
12. Water sources affected by consumption of water
13. Lands in protected areas and areas of high biodiversity value
14. Impacts of activities, products and services on biodiversity
15. Habitats protected or restored
16. Strategies, actions, and plans for managing impacts on biodiversity
17. Species with habitats in areas affected by operations
18. Weight of waste by types and disposal method
19. Initiatives to reduce greenhouse gas emissions and reduction achieved
20. Weight of transported, imported, exported, or treated hazardous waste
21. Water discharge by quality and destination
22. Direct and indirect greenhouse gas emissions
23. Emission of ozone-depleting substances
24. NO, SO, and other significant air emissions
25. Other relevant indirect greenhouse gas emission
26. Significant spills
27. Water biodiversity affected by discharges of water and run off
28. Initiatives to mitigate environmental impacts
29. Products sold and their packaging materials that are reclaimed
30. Environmental impacts of transporting products and workforce members
31. Total environmental expenditures and investment
32. Fines and sanctions for non-compliance with environmental laws and regulations

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