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Corporate Sustainability and Corpora

Corporate Sustainability and Corporate Financial Performance: The Indian Context

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I. Introduction:

Today the countries across the globe are facing unprecedented sustainability challenges fraught with environmental crisis, financial crisis, social crisis and governance crisis¹. Hence there has been an accelerated emphasis on the need for making sustainability development goals² a universal priority (Earth Summit 1992, 2002, and 2012, IIRC 2012: Rio+20 policy). Business corporations have started realizing that it is high time to move beyond short-term myopic goal of profit-maximization to longer term sustainability goals involving environmental, social, and governance goals (ESG)³. Accordingly, companies have started integrating sustainability goals into their corporate strategy [Corporate Sustainability (Figge and Hahn 2004)] and disclosing⁴ their sustainability activities in order to assure their legitimacy (license to operate in society) [Corporate Sustainability Reporting (Deegan Craig 2007)]

CSR and sustainability reporting has been extensively studied in the past few decades (Margolis et al. 2009) but the context of emerging economies remain largely unexamined except for few survey reports like US SIF Foundation (2012); Social Investment Forum (2009); GIZ India et al. (2012); and KPMG (2011). CSR behavior seems to vary widely across countries. Emerging economies like India are growing at a very fast rate and have progressed from being the low cost centers of production to new consumer markets, new investment hubs and new investees. These developments are bringing in ESG challenges, to which these economies can no longer afford to remain passive. Various international bodies as well as the governments are trying to create

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¹ environmental like crises of water supply, land degradation, dimate change, ozone depletion, global warming, erosion of biodiversity, fuel crisis etc.), financial crisis like the global financial crisis of 2008, social crisis ¹ like violence, corruption, child labour, unfair discriminations, human right abuses, governance crisis like Enron & Worldcom in 2002, Satyam 2009

² 'Sustainable development' has been defined as "...development that meets the needs of the present world without compromising the ability of future generations to meet their own needs." [Brundtland Commission Report (World commission on Environment Development 1987)].

³ This is in line with the term "triple bettern line" which was existed by Elvington and which these days have become popular with three pillers of

This is in line with the term "triple bottom line" which was coined by Ekington and which these days have become popular with three pillars of people, planet and profit. (Ekington, J. (1999). Triple bottom line reporting: Looking for balance. Australian CPA, (March), 19–21)

⁴ Sustainability reporting particularly by MNCs (Kolk 2003) has experienced a significant rise in the face of negative implications on ESG associated with globalization.

awareness and bring in regulations to encourage corporate sustainability performance and reporting. Corporations would be encouraged towards sustainability performance and investors would be encouraged to use sustainability based investments if adequate research shows its potential to create long term value.

This paper aims to fill in the much needed gap in the CSR literature in understanding the value of corporate sustainability behaviour in one of the largest emerging market economies namely, India. It explores the specific characteristics which drive a company towards superior sustainability performance and reporting. There is paucity of research answering this question even in the context of developed world. It further examines the relationship between corporate social performance (CSP) and corporate financial performance (CFP) with greater measurement objectivity and methodological rigor than that in the existing literature. Our study is expected to help the corporations in their strategy formulation, the investors in their investment decisions and the policy making bodies in devising means to induce desirable sustainable behavior from the companies, particularly in emerging economies like India.

The rest of the paper is organized as follows. Section II motivates the study by providing a brief outline of the Indian context, the sustainability reporting initiatives and the sustainability based investments. Section III contains a theoretical background of corporate sustainability and review of the relevant literature followed by development of hypothesis in Section IV and the data, methodology and variable definitions in section V. Section VI reports the results and provides a discussion of the results. Section VII concludes the paper and provides direction for future research.

II. Motivation for the study

India has been one of fastest growing economies of the world and tenth largest by nominal Gross domestic Product (GDP) (IMF's, 2011 estimates). A fast growth is typically associated with ESG challenges⁵. These challenges can impose serious constraints on the economic expansion and stability of the country. With globalization and liberalization, Indian companies are now moving out of their domestic boundaries to do business in foreign lands and get their companies listed in foreign stock exchanges. Global investors and customers they face have become increasingly demanding about the corporate sustainability disclosures. The country has also been experiencing significant inflows of foreign direct investments (FDI) and foreign portfolio investments (FPI)⁶. Many of these foreign investors (like Deutsche Bank, HSBC) are signatories to UN Principles for Responsible Investment (UNPRI) and are becoming increasingly discriminating about the ESG issues⁷. Indian civil society has grown with more than three million NGOs, many of which are skeptical about the negative externalities of business

2007). Given the institutional environment and the changes in the country, it would be interesting to find out whether the special characteristics of Indian companies influence their corporate sustainability performance and reporting (CSPR) and whether the consequences of their sustainability performance is different from those found in the developed world.

Sustainability Reporting Initiatives:

Companies adopt sustainability performance and reporting very often because there are regulations or disclosure requirements needed to be complied with. There have been several initiatives to encourage sustainability development worldwide. Global Reporting Initiatives (GRI) G3 guidelines, United Nations Global Compact (UNGC)⁹'s annual "Communication of Progress (COP)" and Carbon Disclosure Project (CDP)¹⁰ annual questionnaires are some of the popular global frameworks available for sustainability reporting.

In India, the disclosure requirements related to environment issues was already there to some extent¹¹. Clearer sustainability reporting rules have emerged lately. In December 2009, the ministry of corporate affairs (MCA) issued *CSR Voluntary guidelines*¹² to encourage businesses towards socially, environmentally and ethically responsible behavior. In July 2011, it released *National Voluntary Guidelines* on Social, Environmental and Economic Responsibilities of business (NVG), which laid down nine comprehensive core principles to be adopted by companies as part of their business practice and structured a format for business responsibility reporting. A

⁹ UNGC encourages companies to voluntarily embrace 10 principles encompassing areas of Human-rights, Labour, and environment and Anti corruption in its strategy, culture and operations. A company can participate in the Global compact principles by reporting through "Communication of Progress (COP)" on annual basis. A CoP is communication to the stakeholders about the progress a company has made in embracing the 10 principles in its business practices or otherwise.

company was required to either report its sustainability performance or explain the reason for not doing so.

In August 2012, Securities and Exchange Board of India (SEBI) issued a circular mandating top 100 listed companies (based on market capitalization in BSE and NSE as on 31st March 2012) to submit Business Responsibility (BR) Report as part of their Annual Report, with effect from financial year ending on/after 31st December 2012. This is in tune with recent inclination of global investors towards "integrated reporting framework¹³" since it will help them compare companies across markets. The Companies Bill 2011, passed in 2012 requires companies which meet certain thresholds in terms of sales, net worth or profits, to have a committee on CSR, a CSR Policy on Board's report and to spend 2% of their three year average profits¹⁴ on CSR activities.

So one can see how over time, the government and regulatory bodies in Ierole -1.15300003 Tc.0547 Tw

companies in emerging market was inhibiting SRI in the emerging markets. So an emerging markets disclosure project (EMDP) was created to work on improving sustainability reporting in emerging markets so as to step-up the sustainable investment activities therein.

In India, SRI is in its embryonic stage¹⁶. A key event in Sustainability investing in India was

introduction of S&P ESG India Index in January 30, 2008. The index constitutes the best 50 ESG

performing stocks in Indian market. The following chart shows that the S&P ESG India Index

outperformed the S&P CNX Nifty every year since March 2009 to March 2012 (Figure 1)

Figure 1: S&P ESG INDEXNDEXeated

III. A Review of the Literature:

Theoretical background of corporate sustainability

In the past, corporate sustainability (CS) would be associated with environmental issues while

in CSR because that gives them competitive advantage in terms of creating *internal benefits* related to know-how, corporate culture, committed workforce etc and *external benefits* related to reputation. This is in line with Porter and Kramer (2006) which looked at investment in CSR as long term investment in company's future competitiveness. This is also in alignment with Elkington (1997), who referred to business firms as 'cannibals' who would use the 'fork' of the 'concept of sustainable business' to devour their competitors and progress into a new stage of civilization.

McWilliams. A and D. Siegel (2001) proposed a *supply and demand view* wherein they theorized that there is a level of CSR investment that can maximize profit and satisfy stakeholders demand for CSR at the same time and that the managers can determine this level through a cost-benefit analysis. According to them, CSP-CFP relation at the equilibrium would be neutral.

Institutional Theory views CSR as mechanisms adopted by organizations to achieve legitimacy within the institutional framework of formal regulations or informal norms in a country. Stakeholders' theory talks about stakeholders expectations, which can be said to be contained in the institutions. This lens helps explain why CSR varies so widely across countries.

Relevant Literature:

The literature on determinants of CSP behavior is very scanty. Atriach (2010) examined the characteristics of companies in DJSI world but their focus was on US companies. Ziegler and Schröder (2010) examined European companies in two common sustainability indices namely DJSI World and DJSI stoxx but they had 16 countries in their sample. Different countries have different institutional environment which can influence corporate CSR behavior differently. They pointed out the need to use the probit models for samples outside Europe and for different sustainability indices.

benefits would be greater than the costs of CSR, would expect a positive relation between CSP and CFP. This gels with the Stakeholders view, which argues in favor of benefits from managing stakeholders interests and Resource based view, which believes the companies with resources will invest in CSR to create competitive advantage. Studies like McGuire (1988), Herremans et al. (1993), Pava and Krausz (1996), Waddock and Graves (1997), Preston and Bannon (1997), Russo and Fouts (1997), Ruf et al. (2001), He et al. (2007) found a positive relation between CSP and CFP.

Causes for the Differences in results: The differences in results across CSP-CFP studies can be attributed to differences in methodology, differences in time period examined, or differences in the country context (Cochran and Wood 1984). It can also be attributed to the wide variation in variables used to measure CSP, CFP and to control the intervening factors.

As far as the measurement of CFP is concerned, there has been objectivity. Margolis et al. (2009) reported 109 studies used accounting based measures, a predominant 156 studies used market based measures, while only 14 which used both. Accounting based measures include measures of profitability (like ROE, ROI, ROS or Profit margin, EPS); measures of growth (like sales growth); and measures of asset utilization (like ROA). Market based measures include PE ratio, Market Price, Market to book value ratio, Stock returns. Accounting measures are historical while market measures are forward-looking.

Variables used in the past to capture CSP were mostly subjective and included: content analysis of CSP disclosures (Wolfe 1991; Rashid and Radiah 2012); publicly available information on social actions like pollution control expenditure, charitable contributions etc; social concerns like product recalls (Davidson and Worrell 1990), toxic emissions, FDA disciplinary actions etc; reputation ratings like Moskowitz's reputation rating (Cochran and Wood 1984), Fortune Magazine ratings

(McGuire 1988), KLD Ratings (Waddock and Graves 1997), (Preston and Bannon 1997); and other survey based indices (Aupperle 1991). There have been questions regarding the reliability of CSP measures because these were either single dimensional (like toxic emissions), subjective or were based on surveys which are likely to be impaired by a significant non-response rate¹⁹ and/or unaudited voluntary CSR reports²⁰ by the companies.

Another stream of literature used event study as a methodology and found market to react positively towards positive CSR event and vice versa (Klassen and McLaughlin 1996; Frooman 1997). Other event studies conducted to check for the impact of inclusion (deletion) from a sustainability index found that investors do pay importance to sustainability (Doh et al. 2010; Cheung 2011; Consolandi et al. 2009). The event study method has been criticized for its shortterm focus on stock price reactions. (Lourenço et al. 2012) used Ohlson's model of valuation to show that CSP can explain stock prices over and above the traditional accounting measures of profit and book value.

IV. **Developing the Hypothesis**

Business Case for Sustainability Reporting: The primary motivation behind sustainability performance and reporting is the belief that it helps companies gain competitive advantage and create long-term value. Sustainability reporting helps the company build a positive image with its stakeholders, thereby helping it manage the social expectations and reduce legitimacy risks. Companies which measure and manage contribution of ESG factors in creating and preserving value are likely to differentiate themselves by exploring innovations meaningfully (RIO+20 policy) and thereby outperforming their peers in the long run. Innovations can bring in operational

¹⁹ Companies which are poor in sustainability performance are likely to be more non-responsive

²⁰ Researchers analyzing 4000 CSR reports published all over the world over a period of past 10 years found unsubstantiated claims, gaps in data and inaccurate figures' (http://www.leeds.ac.uk/news/article/2696/doing_good__or_just_talking_about_it).

lower environment related penalties (Chen

was not limited to the top 100 companies. Limiting the study to top 100 would also mean losing out on many companies which are in the sustainability index but are not among the top 100.

Corporate Social Responsibility Variable (CSP) Due to the reliability issues and lack of standardization related to the contents of the CSR reports, the recent studies have not started preferring the use of sustainability indices for identifying companies which are leaders in sustainability performance (Artiach et al. 2010; López et al. 2007; Ziegler and Schröder 2010). Following these the study uses 'S&P ESG India index' to measure CSP. The index was launched in January 2008. So the sample period is a four year time period spanning from 2009 to 2012. The sample was classified into two groups. The first group comprised of companies which appeared in S&P ESG India index²⁴ in all the four years. The second group comprised of companies which never appeared in the index in any of the four years. The companies which belonged to the first group would be superior sustainability performers when companed to companies in the second

Where Pr denotes probability, D_{it} is the CSP dummy which takes the value 1 for CSP leaders and 0 for non-CSP firms, X_{it} is a vector of regressors that are assumed to influence D_{it} and is the cumulative distribution function of a standard normal distribution.

To estimate the effect of CSP on CFP, a panel regression model of the following form has been used:

(2)

Where Y_{it} measures Corporate Financial Performance (CFP) for company i at time t, X_{it} is a vector of exogenous observable company characteristics, i is the unobserved time invariant company specific heterogeneity that affects the dependant variable and i is the idiosyncratic error or unobserved factors that change over time and affect Y_{it} .

CFP is captured using two alternative types of measures. The first type is accounting-based measure namely Return on Equity (ROE) and Return on Asset (ROA). Data on ROA and ROE is obtained from Prowess database. ROA is Net Profit divided by Average of total assets as at the beginning and end of the year and ROE is PAT as percentage of average net worth.

Multiple measures of financial performance are often preferred over a single measure (Griffin and nors aau.26(eip) Mainadut 1993) p. (Chairo last binage) measures are considered to be inadequate because it captures past and immediate short run performance. Accounting measures can be bi3 T4n1.5 bic ular whin phe

likely to be influenced by differences in accounting procedures. So the second type of financial performance measure is used which is market-based namely Tobins Q. Tobins Q is defined as the ratio of market value of assets to the replacement value. Tobin Q is calculated using the following formula: $\frac{\text{TotalAssets MarketCapitalization Net Worth}}{\text{TotalAssets}}.$ However, market based measures tend to be noisy. The use of accounting as well as market based measures of CFP is expected to make the study holistic.

The market based measure of financial performance is further explored by making use of empirical version of the Ohlson (1995)'s Valuation Model, very similar to those used by Berthelot, Coulmont et al. (2012). The model links accounting data with market data in the following manner:

$$MV_{it}$$
 0 1 BV_{it} 2 $Earnings_{it}$ 3 $Loss_{it}$ $Earnings_{it}$ 4 D_{it} 5 X_{it} it

Where suffix it denotes company i at time t, MV_{it} is the natural log of Market Value per share (Market Value per share = Market capitalization/ Number of shares outstanding), BV_{it} is the natural Log of Book Value of Equity per share, Earnings, the measures Earnings per share, Loss, to a it

Table 2: Definition of Independent/Control Variables

Variable	Mnemonics	Variable Description	
Size	In_ta	Natural logarithm of Total Assets ²⁷	
Financial Risks	leverage	Total Assets / Net Worth	
Profits	eps	Earnings of the last four trailing quarters divided by the latest number of shares outstanding	
Liquidity	cfo_ta	Net cash flow from operating activities/ Total Assets ²⁸	
Age of company	In_age	Natural Log of (Relevant year minus the year of incorporation)	
Dividend Payments	dps	Dividends ²⁹ / Number of shares outstanding at the end of the year	
R& D intensity	rnd_ta	R&D expenses/Total assets (%)	
Advertisement intensity	adv_exp_ta	Advertising expenses/Total assets (%)	
Global customers	exports_sales_perc	Export / Sales (%)	
Growth of the company	growth_ta	Growth of Total assets over last year (%)	
Operating risks	dol	Net fixed assets net of revaluation/ Total Assets (%)	
Margin	profit_margin	Net profit of the company after tax and after adjustments for prior period and extra-ordinary transactions/Revenues (%)	
Business Group Dummies	own_gp_foreign	Dummy=1 if Foreign business group affiliation, 0 otherwise	
	own_gp_indian	Dummy=1 if Indian business group affiliation, 0 otherwise	
Industry Dummies	gic_(name of the industry)	10 dummies, one each for 10 GICS sectors	
Year Dummies	year	Four dummies, one for each of the years 2009, 2010, 2011, 2012	

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²⁷ Size has been captured in the literature through total assets, total sales or number of employees. Total sales are not used because a significant part of our sample consists of financial institutions. In the current era of mechanization, the number of employees might not be able to capture the size of a company correctly. So, natural log of total assets was preferred as a measure of firm size.
²⁸ The measures like quick ratio or current ratio have not been used because they are static measures. Since cfo relates to a period, it is a dynamic

²⁸ The measures like quick ratio or current ratio have not been used because they are static measures. Since cfo relates to a period, it is a dynamic and hence more meaningful measure to capture ability of the company to meet short term cash needs.

Determinants of CSP: Companies which are large in size enjoy economies of scale in their operations and therefore are more capable of bearing CSR related fixed costs. Larger firms would also have a large and diverse group of stakeholders (McWilliams. A and D. Siegel 2001), which can make them visible and vulnerable to potential negative reactions, if they fail to assure their social legitimacy. So, due to the affordability and pressures of visibility a larger company is more likely to be in the sustainability index.

Leverage captures the financial risk a company faces and the claims the powerful stakeholder namely, debt holders have on the company's assets. A higher leverage would mean greater financial risks, more emphasis on meeting debt-holders claims and lesser flexibility in using the resources to for CSR. So, it is hypothesized that higher the leverage, less is the likelihood of a company being on the sustainability index.

CSR depends a lot on managerial discretion. So, when a company is poor in generating profits, it will be under pressure to cut costs and expenditure on CSR is likely to be cut first. On the other hand when profits are high, it will have more slack resources (Resource based view) which can allocated for CSR. So, the study hypothesizes that lower the EPS of a company, lower is its likelihood to be in the index and vice-versa.

Greater the number of years a company is in business successfully, greater is the social expectations it is likely to generate. So, an older company might feel more responsible morally to give back to the society since it has used its resources for longer period of time. Many of the leading older companies in India are traditional business houses like those owned by the Tata's. They have deep-rooted sense of responsibility towards the society at large. Hence, an older Indian company is more likely to be in the sustainability index.

A company with a higher 'export to sales percentage' can be expected to be more likely to be in the sustainability index because a higher export implies larger extent of CSR conscious global stakeholders.

A higher amount of Research and Development (R&D) expenses reflects the ability of the company's management to innovate and its strategy to invest in intangible assets (Clarkson, Li et al. 2011). The resource based view of the firm believes a firm with superior management ability will be proactive in CSP. Since management ability is not directly observable, R&D expenses can act as a proxy for the same. So, a company with higher R&D is more likely to be in the sustainability index.

Advertisement Expenses captures the ability of the company to create product differentiation, customer loyalty and brand image. Such a company is likely to have higher tendency to invest in CSR. So it can be expected that a higher advertisement expense would be associated with superior CSP and hence higher likelihood of appearing in the sustainability index.

Business Group dummies: Business Groups³⁰ in India have traditionally shown their sense of responsibility to ESG issues, though it was viewed more as philanthropy rather than a strategic decision. Companies affiliated to foreign groups are likely to meet the CSP needs of the more CSR conscious promoter. So two dummies were used one for Indian business group affiliated and the other for foreign business group affiliated. It is expected that the companies belonging to these two groups will have superior CSP when compared to companies non-business group companies.

Other variables expected to influence likelihood of a company being in the sustainability index are liquidity, dividends, and growth. Higher liquidity (slack resources) and higher dividends (signal of financial strength) are likely to influence CSP positively while growth (availability of investment

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³⁰ Khanna and Rivkin (2001:47) define a business group as a set of firms which, t Khanna aous gtell

opportunities) can be expected to influence it negatively. If a company operates in an industry which is environmentally sensitive, (like oil & gas companies or the mining companies, which consume non-renewable resources and generate pollutants) managing stakeholder expectations would be very challenging. So, industry dummies are used to capture industry specific affect on CSP. The business environment and the CSR expectations of the society keep changing. So, year dummies are used to control for year speci

the conflicts of interest between the controlling family shareholders and minority shareholders and possibility of tunneling of resources (Singh and Gaur 2009). So, one can expect the business group

Table 3: Descriptive Statistics

Variables	Mean	SD	Min	Max	Q2	Mean		Min	Max	Q2
		For CSP-leaders			For non-CSP firms			rms		
roa	10.7	8.7	0.6	36.2	7.9	9	11.6	-120	127.8	7.6
roe	25	20.9	6.1	142.7	19.3	22.1	42.4	-283.5	791.7	20.7
tobins_Q	2.7	2	0.9	9.1	1.9	2.8	2.6	0.7	29.3	2
In_mv_per_share	6.3	0.9	3.5	8.2	6.4	5.7	1.2	2.9	10.4	5.7
In_ta	10.4	1.3	7.5	13.1	10.3	8.9	1.7	5	14.1	8.6
leverage	3.8	3.8	1.2	19.4	2	4.5	7.3	-45.9	43.4	2.2
eps	40.2	32.8	-47.5	129.6	37.2	36	78.5	-197.3	1,072.60	18.3
do_ta	10.1	9.1	-14.3	35.4	9.2	8.1	11.2	-35.2	49.2	8.1
In_age	3.6	0.7	2.6	4.7	3.5	3.4	8.0	0	4.8	3.4
dps	11.5	10.6	1	60	9.8	8.5	15.6	0	203.2	3.5
adv_exp_ta	1.8	5.4	0	26.6	0	1.7	4.3	0	34.4	0
rnd_ta	0.5	1.1	0	5.4	0.1	0.4	1.1	0	8.7	0
exports_sales_perc	27.8	36.8	0	166.5	7.3	13	23.8	0	116.6	1.2
growth_ta	18.7	11.7	-5.1	78.3	17.3	23.7	35.6	-52.6	441.4	18.6
In_bv_per_share	5	1.1	2.2	6.6	5.2	4.6	1.2	-0.5	8.6	4.6
loss_eps_interact	0	0	0	0	0	-0.7	9.7	-197.3	14.7	0
profit_margin	13	6.8	0.4	27	12.6	13.9	34.2	-588.6	92.7	12.4

Table 4: Correlation Coe8.ion Coec2. Tw[26)8.4(4.6)27

liquidity, growth and advertisement expenses had a positive impact. CSP dummy is found to be significant implying that superior CSP leads to superior CFP.

When the dependant variable was ROE and Tobins Q the self selection parameter hazard lambda, was found to be significant. So for both ROE and Tobins Q, treatment effect results would be more meaningful. The results of the treatment effect model shows that only size has a negative impact on ROE while leverage, profits margin along with liquidity, growth and advertisement expenses had a positive impact on the same. The treatment effect results further shows size and business group dummies to have a negative impact on Tobins Q while liquidity and advertisement expenses to have a positive impact on the same. CSP dummy has a positive and significant coefficient for both the dependant variables, ROE and Tobins Q. This suggests that the treatment of being in the ESG S&P sustainability index has a positive impact on CFP after controlling for selection bias. Table 7 reports the results of empirical version of Ohlson model used for exploring the market impact of superior CSP. Like in ROA model, the insignificant lambda found for this model suggests that selection bias is not a problem. Therefore, the panel regressions can be used for interpretations. Book Value, EPS, and liquidity are found to have a positive effect as expected while Indian business group dummy is found to have a negative effect on the market value. CSP dummy again has a positive and significant coefficient on Market value. So Table 7 confirms that market values companies which have superior CSP.

Table 7 Ohlson's Model: Dependant Variable – Market Value

	(1)	(3)
VARIABLES	panel	Treatment Twostep
In_bv_per_share	0.750***	0.699***
	(0.050)	(0.030)
eps	0.001***	0.002***
•	(0.000)	(0.000)
loss_eps_interact	0.002	0.000
	(0.002)	(0.003)
leverage	0.017	-0.023* * *
-	(0.015)	(0.006)
cfo_ta	0.010***	0.021***
	(0.003)	(0.003)
In_age	-0.122	-0.055
_	(0.075)	(0.042)
bus_grp_indian	-0.219**	-0.216* * *
	(0.109)	(0.063)
bus_grp_foreign	0.024	0.032
	(0.214)	(0.118)
csp_dummy	0.297* *	0.284**
	(0.136)	(0.129)
Constant	1.655* * *	2.131***
	(0.354)	(0.221)
lambda		-0.003
		(0.085)
Observations	608	608

Discussions

The results from panel probit model shows that a company which is large in size, has lower leverage, higher research & development expenses, higher advertisement expenses, and is business group affiliated, is more likely to be CSP leader and find its place in S& P ESG India Index.

Artiach et al. (2010)³¹ found the companies leading in CSP performance were larger, had higher levels of growth and higher ROE. But they did not find the CSP leaders to have lower leverage or higher cash flows. Ziegler and Schröder (2010) found positive effect of size, negative effect of financial health captured through 'sales to total assets', and no influence of debt on inclusion of European firms in DJSI world and DJSI stoxx. Lourenço et al. (2012) found that markets penalize

³¹ They also conducted ordered probit and found similar results

large and profitable firms if they have lower levels of CSP, thereby reflecting that the larger and profitable firms have higher pressures to go for sustainability performance. Our results from panel probit on size concurs with the findings of Artiach et al. (2010), Ziegler and Schröder (2010) and Lourenço et al. (2012). So it can be concluded that either the visi

confirm that companies which operated in environmentally sensitive sectors had superior CSP performance, probably to meet the challenge of higher stakeholder expectations from them. Information technology might be less polluting but yet they were more likely to adopt superior sustainability measures and reporting probably owing to their outsourcing business model, global operations, and sustainability conscious global customers and investors.

VII. Conclusion:

This study advances the field of CSR research in several ways. It is the first study which attempted to find the factors driving superior CSP in one of the largest emerging economies of the world and to check the impact of such superior sustainability performance. Use of the S&P ESG Index to operationalize superior CSP takes care of the challenge involved in measuring CSP objectively. Our study spanning 2009 to 2012 is very timely because the index was launched in 2008 in India and 2012 saw the Rio+20 summit and SEBI regulations mandating sustainability reporting for top 100 NSE/BSE companies in India.

The study employs greater methodological rigor than those used by similar past studies by making use of two-stage treatment procedure. The CFP is measured not only in terms of accounting measures which are perceived as short term performance report but also in terms of market measures which are viewed as a measure of long term firm performance. Use of multiple measures of financial performance makes the study holistic. The market based measure of CFP was explored further by using Ohlson (1995) model to check whether Indian markets value CSP. The study also takes care of time-variant industry specific effects as well as year specific effects.

The study finds that companies which are large in size, have less leverage, are business group affiliated, have higher R&D and advertisement expenses, and are operating in environmentally sensitive industries are likely to be superior in sustainability. Such superior sustainability performance leads to superior financial performance, captured through multiple measures of ROA, ROE and Tobins Q ratio. Ohlson's model further confirms that market rewards companies for being in the sustainability index. The results of the paper have implications not only for academicians and business leaders but also for po

to decide on their investments or those who govern the corporate allocation of resources would appreciate the benefit of incorporating sustainability into corporate strategy and reporting.

Future Research Directions: Future research can investigate the impact of the sub-components of sustainability performance namely the environment, social and governance performance separately. There is a need to understand the channels in the value chain through which CSP influences CFP. In Indian context, it would also be interesting to examine the mandatory Business Responsibility reports that would be submitted by the top 100 companies and their market impact.

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