

Relationship between Environmental Responsibility and Financial Performance of Firm: A Literature Review

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Abstract: *Environmental Sustainability is the need of the hour. It has the potential to influence overall profitability of organization. The organizations should take accountability for the impacts of their operations on environment and should disclose the same in their annual and sustainability reports. The purpose of this study is to analyze the relationship between environmental responsibility and financial performance of firm through review of extant literature, so as to find answer to the research question 'whether going green is profitable for firm or not'. Various theoretical, review and empirical researches have been conducted in past years for examining this relationship. But the results are mixed, inconsistent and often contradictory; ranging from positive, to negative, to statistically insignificant relationship; depending upon the choice of measure of environmental responsibility, measure of financial performance, sample composition, time-period and control variables. We, however, observed that majority of studies indicate positive relationship. This paper attempts to critically analyze prior studies in order to build up scope for further research, so that future researchers may reach to better and more consistent results.*

Keywords: *Corporate Social Responsibility (CSR), Corporate Sustainability, Environmental Disclosure, Environmental Performance, Environmental Responsibility, Financial Performance, Sustainability Reporting*

I. INTRODUCTION

Environmental Sustainability is currently a pressing issue across the globe. **Porritt (2005) [1]** suggested the need for three planets to meet the basic needs of India, China and countries in West. **Gray (2006) [2]** highlighted the need for sustainability by providing estimates of ecological footprints of humanity through time indicating that world population has been over-exploiting the available planetary resources.

In today's era of environmental degradation; in the wake of continually depleting ozone layer, global warming and climate change; the firms need to change the way of doing business. They should take accountability for and disclose various beneficial and harmful impacts of their operations on the overall society and environment in which they exist. Thus, the concept of Corporate Sustainability is assuming great importance and has become a source of competitive advantage for firms. The **World Business Council for Sustainable Development (2002) [3]** defined Corporate Sustainability as - "the commitment of business to contribute to sustainable economic development, and to work with employees, their families, the local community and society at large to improve their quality of life."

Dey (2012, March 22) [4] observed that number of standards and guidelines regarding environment and sustainability has been increasing at fast pace. The multiple frameworks required to be followed by Top 100 Listed Indian companies, either voluntarily or mandatorily, are – National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business, GRI Guidelines, Carbon Disclosure Project (CDP), Perform, Achieve and Trade (PAT) Scheme, GHG Protocol, etc.

Various researches have been conducted in past for investigating the relationship between corporate environmental performance and financial performance. But the results are mixed, inconsistent and often contradictory. This paper critically analyzes prior studies pertaining to this topic. Two major schools of thought emerge from the review of literature – 1) Cost-Concerned Approach, and 2) Value-Creation Approach. We organize the studies on the basis of relationship suggested by them, i.e. positive, negative, mixed and insignificant relationship to provide clear picture of relationship and to build up scope for further research.

II. OBJECTIVES OF THE STUDY

This paper aims to achieve the following objectives: 1) To provide an overview of the concept of corporate social responsibility (CSR), environmental responsibility and sustainability; 2) To study the relationship between environmental responsibility and financial performance of firm; 3) To provide related theory establishing linkage between environmental responsibility and financial performance; 4) To provide a review of extant literature in order to throw light on the findings, conclusions and limitations of studies

pertaining to our research topic, and to lay down scope for further research that may facilitate future research in this area.

III. CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY (CSR), ENVIRONMENTAL RESPONSIBILITY AND SUSTAINABILITY

The concept of Corporate Social Responsibility (CSR) has its origin in the 1950s, but its significance started to rise only in early 1970s. According to **Choi (2008) [5]**, social responsibility refers to accountability of company towards its effects on employee welfare, local community and environment. The ISO 26000 was published as an international standard for CSR in November 2010, which is first of its kind by ISO.

Environmental Responsibility refers to being accountable and disclosing the impacts of organization's activities on environment, such as water, air, land and noise pollution. ISO 14063 is the international standard for environmental management and communication. **Eccles and Krzus (2010) [6]**; **Pahuja (2009) [7]** observed that past 20 years came across a global concern for long-term negative impact of industrial activities on environment, which trickles down on economic performance of firms and country as a whole. The environmental impacts include greenhouse gas emissions, toxic and ozone-depleting substances, common pollutants and solid waste generation. Public disclosure of such information portrays the company's commitment to environmental sustainability.

Brundtland (1987) [8] defined sustainability as- "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." **Elkington (1998) [9]** developed the term "triple bottom line" to emphasize on three aspects - profits (economic), people (social), and planet (environmental). Sustainability Reports are published by firms to provide a description of their triple bottom line performance. According to GRI, i.e. **Global Reporting Initiative (2011) [10]**, "environmental dimension of sustainability concerns an organization's impacts on living and non-living natural systems, including ecosystems, land, air, and water". GRI Environmental Performance Indicators cover performance related to inputs (e.g., material, energy, water) and outputs (e.g., emissions, effluents, waste), biodiversity, environmental certifications and expenditure.

IV. RELATED THEORY

A. Legitimacy Theory: According to this theory, it is essential to meet the societal norms and expectations to ensure the survival of firm in long-term (**Lindblom, 1993) [11]**. The proponents of legitimacy theory argue that corporate social and environmental responsibility tends to reduce the risk of regulatory actions and boycotts by stakeholders and strengthens the firm's license to operate.

B. Stakeholder Theory: According to **Freeman (1984) [12]**, stakeholder theory upholds that firms have accountability towards a broad range of stakeholders, apart from shareholders, i.e. customers, suppliers, employees, government, community, environment, future generations, etc. Corporate social and environmental responsibility helps in strengthening the relationship between firm and society in which it operates. Ignoring the stakeholder interests may taint firm's public image, which would unfavorably affect its financial performance.

V. LITERATURE REVIEW

Numerous quantitative and qualitative studies have investigated the relationship between environmental responsibility and corporate financial performance over the last few decades. Prior literature provided mixed results ranging from positive to negative, or no relationship, or even an inverted U-shaped relationship (**Lankoski, 2000) [13]**. This may be due to usage of widely differing research methodologies and also because of lack of objective measures for environmental performance and disclosures (**Moneva & Cuellar, 2009) [14]**.

Among the initial studies examining this relationship were **Bragdon and Marlin (1972) [15]** and **Spicer (1978) [16]**, who conducted the study in environmentally sensitive and pollution prone industries. They found statistically significant correlation between them. **Barth et al. (1997) [17]** analyzed the effect of various factors (such as firm's size, prior environmental performance, external financing, etc.) on voluntary environmental disclosure practices of firms. They found that firms having larger size, or positive environmental performance, or firms that seek external finance from capital markets, are more likely to make comprehensive environmental information disclosures than their counterparts.

It is consistently suggested by existing literature that environmental performance disclosures are value relevant for market players like investors and financial analysts, since they influence stock market prices and market value of firm (**Holm & Rikhardsson, 2008) [18]**. **Aerts et al. (2008) [19]** conducted a study on continental European, US and Canadian firms and showed that high quality environmental disclosures make financial analysts' earnings forecasts more precise and concrete. However, the impact gets diminished for firms belonging to environmentally sensitive industries and those firms which are highly followed by analysts.

Hassel et al. (2005) [20] identified **two schools of thought** on the relationship between environmental and financial performance. One is the ‘**cost-concerned approach**’ which argues that high environmental activities require huge costly investments and thus, lead to decrease in firm earnings and decline in market value. The other is the ‘**value-creation approach**’, which argues that environmental (green) initiatives taken by firms provide them with an increased competitive advantage, which contributes to higher profitability for firm.

Now the various studies reviewed in this area have been segregated and organized on the basis of nature of relationship indicated by their results.

5.1 Positive Relationship

It is often argued by researchers that failure of firm in addressing environmental issues is likely to have negative effect on firm’s reputation with stakeholders & customers, and its attractiveness to current and potential employees. The regulation costs faced by firm (e.g. litigations, penalties, etc.) will also rise significantly. All these negative effects are likely to reduce firm’s competitiveness and affect its stock market value. On the other hand, environmentally responsible firms are more likely to be perceived as transparent, credible, less risky and attractive in terms of future financial prospects by investors and other stakeholders. These positive effects are likely to enhance the stock market value of firm and reduce its cost of capital (Cormier & Magnan, 2007) [21].

Murphy (2002) [22] performed an extant literature review of research conducted within the time span of 1994 to 2001 to investigate the nature of relationship between environmental and financial performance, and found a vivid positive association between them. Particularly, it was concluded that firms with high environmental ratings and firms that exceed regulatory requirements experience higher market valuation; while firms with negative environmental performance (e.g. environmental accidents, oil spills, harmful substance releases, etc.) experience decline in stock prices.

The prior researches (using event studies) demonstrated that environmental performance disclosure practices of firm before an environmental accident have a significant bearing on degree of negative stock market reaction following the accident. Blacconiere and Patten (1994) [23] examined market reaction using sample of 47 US chemical firms following the 1984 Bhopal chemical leak. Findings indicated that firms with more comprehensive pre-event environmental disclosures underwent less negative market reactions than their counterparts. Patten and Nance (1998) [24] also experienced similar findings for US petroleum companies following the 1989 Exxon Valdez oil spill.

The majority of studies reviewed on the relationship between environmental and financial performance suggested positive correlation. **8 important studies** exhibiting positive relationship have been analyzed and summarized in **TABLE - 1** below.

TABLE - 1: Positive Relationship between Environmental Responsibility and Financial Performance of Firm

Study	Measure of Environmental Responsibility	Measure of Financial Performance	Sample Description, Data Sources and Control Variables	Key Findings and Conclusions	Remarks and Limitations (if any)
1. King and Lenox (2001) [25]	Total emissions, Relative emissions and Industry emissions	Tobin’s Q	Sample: 652 publicly traded U.S. manufacturing firms over the time period 1987 to 1996. Data Sources: U.S. EPA’s Toxic Release Inventory (TRI) database, facility data from Dun & Bradstreet and financial data from S&P’s Compustat database. Control Variables: Firm size, Capital intensity, Growth, Leverage, R&D intensity, Regulatory stringency and Permits.	Study finds evidence of association between pollution reduction and financial gain. It also shows that firms in cleaner industries have higher Tobin’s Q, but unable to rule out possible confounding effects from fixed firm attributes.	Direction of causality could not be proved. Additional research is needed to explore how underlying firm characteristics affect this relationship.

<p>2. Al-Tuwaijri et al. (2004) [26]</p>	<p>Environmental performance is measured by ratio of toxic waste recycled to total toxic waste generated & Environmental Disclosure Score is based on 4 indicators.</p>	<p>Industry-adjusted annual return; measured by change in stock price during the year (adjusted for dividends)</p>	<p>Sample: 198 firms appearing in Wall Street Journal Index, listed in IRRC's directory and generated at least 1 pound of toxic waste per \$10,000 of revenue in 1994. Data Sources: Recycling ratio data from Corporate Environmental Profiles Directory. Environmental disclosure measure is based on content analysis of information reported in SEC Form 10-K. Financial data is obtained from Compustat database. Control Variables: Unexpected portion of earnings, pre-disclosure environment, growth opportunities, profit margin, firm's exposure to future environment costs, environment concern, public visibility and firm size</p>	<p>Study found significant & positive relation between good environmental performance & more extensive quantifiable environmental disclosure, and between environment performance & economic performance. It also observed a positive relation between past environmental disclosure and current environmental performance.</p>	<p>Simultaneous Equations Approach is used. Limitation: The sample, drawn from S&P 500 firms, induces a size bias. Thus, results can only be generalized for large firms.</p>
<p>3. Freedman and Patten (2004) [27]</p>	<p>Voluntary Positive Environmental Performance Disclosure Scores, Voluntary Litigation-related environmental disclosure scores (ranging from 0 to 3); and Mandatory Toxic Releases Information</p>	<p>Changes in Market Value of firm (Firm-Specific Market Reactions)</p>	<p>Sample: 112 US firms; included on EPA's listing of top 500 toxics releasing companies for 1987; and had return data available on daily CRSP tape. Test Period: 3 days, i.e., from 12 to 14 June, 1989. Data Source: Toxic release information as reported in 1987 Toxic Release Inventory (TRI) Control Variables: Firm Size (log of 1988 revenues), Log TRI, Industry classification</p>	<p>Study found that firms with worse pollution performance (as per mandatory TRI data) suffered more negative market reactions. However, companies with more extensive voluntary environmental disclosures suffered less negative market reactions. Further, litigation disclosure variable was not found to be statistically significant.</p>	<p>It suggested that negative market reaction towards poor environmental performers (high polluting firms) could be mitigated with more extensive voluntary environmental reporting.</p>
<p>4. Nakao et al. (2007a) [28]</p>	<p>Environmental Scores & 4 dummy variables: Recycling, Pollutant Release & Transfer Register (PRTR), Environmental Accounting, & CO2 emissions</p>	<p>Tobin's Q minus 1 & ROA</p>	<p>Sample: 278 listed corporations in Japan. Data Sources: Database compiled by Institute for Global Environmental Strategies, Kansai Research Centre; Company's Environmental Reports; Environment scores from Nikkei Environmental Management Score Report; Financial data from Kaisha Shikiho and NEEDS-CD ROM Nikkei Corporate Financial Data</p>	<p>Using data from 1999-2003, study showed that positive effect of corporate environmental activities on financial performance was verified more clearly when information about firms' responses to environmental policies were included with information about environmental management activities.</p>	<p>This paper approaches the problem of causality by applying a simplified version of the Hurlin-Venet extension of the Granger causality test.</p>
<p>5. Nakao</p>	<p>Environmental</p>	<p>ROA, ROE,</p>	<p>Sample: Listed firms</p>	<p>Study suggests that</p>	<p>This tendency</p>

et al. (2007b) [29]	Performance Score	Tobin's q-1, and EPS	covered in survey, spreading over 19 Categories in manufacturing sector (excluding energy and construction industries). Data sources: 1) Nikkei Environmental Management Survey Reports; 2) Aggregate market value from Kaisha Shikiho; 3) Basic financial data from Nikkei Financial Data CD-ROM; 4) Firms' financial statements.	firm's environmental performance has positive impact on its financial performance and vice versa. They also observed that this trend is not limited to top-scoring firms in terms of both financial and environmental performance.	for two-way positive interaction appears to be only a relatively recent phenomenon.
6. Guenster et al. (2011) [30]	Eco-efficiency Scores	ROA & Tobin's Q	Sample: 154 US listed firms at the end of December 1996 and 519 firms at the end of Sep 2004. Data Sources: Monthly eco-efficiency scores by Invest Strategic Value Advisors and Financial data from Compustat database. Control Variables: Firm Size (Total Assets and Total Sales) & Firm's Riskiness (Debt to Asset Ratio)	Study finds that eco-efficiency relates positively to operating performance and market value. Moreover, market's valuation of environmental performance has been time variant, which may indicate that market incorporates environmental information with a drift.	Relationship found is positive, but slightly asymmetric.
7. Griffin and Sun (2012) [31]	Voluntary GHG emissions disclosures using CSR newswire service	Market-adjusted returns in the CSR announcement interval	CSR newswire sample of 172 GHG releases by 84 US companies over 2000-2010 was selected and a matched control sample was also selected from the merged Compustat / IBES dataset. Financial data were taken from Compustat or CRSP. Control Variables: Size and public information availability	Study found that managers' voluntary green disclosure decisions produce positive returns to shareholders. Further, shareholders of smaller companies with limited public information availability benefit the most from voluntary green disclosures than those of large companies who also benefit but less significantly.	They found that more disclosures occurred over 2007 to 2010.
8. Oba et al. (2012) [32]	Environmental Disclosure Index Scores using 12 checklist items and rating on scale of 0-1 using content analysis	Return on Capital Employed	Sample: 18 listed firms in Nigeria; randomly selected from 4 environmentally sensitive industries for the year 2005-2009. Data Sources: Disclosures in Annual reports.	Study found positive & significant relationship between quality of environmental disclosure & financial performance and vice versa.	Study assesses two-way relationship between given two variables, considering the issue of reverse causality.

5.2 Negative Relationship

Some existing researches indicate presence of negative relationship between environmental performance and financial performance (**Barth & McNichols, 1994; Blacconiere & Northcut, 1997; Cormier & Magnan, 1997; Hughes, 2000**) [33; 34; 35; 36]. **Three important studies** in this regard are described below in brief.

1) Hassel et al. (2005) [20] investigated association between environmental and financial performance, using Residual Income Valuation Model (modified version of Ohlson, 1995 Model) for Swedish firms listed on Stockholm Stock Exchange over a period of 9 quarters from June 30, 1998 to September 30, 2000. Sample

consisted of 337 valid firm quarter observations. They used Cum-Dividend Market Value of Equity, Environmental Performance Ratings from Caring Company Environmental Index and disclosures in interim and annual reports. Stock prices were obtained from Trust Database of Bonnier-Findata, Sweden, while accounting information were collected from companies' financial statements. The control variables used were: Firm Size, two dummy variables- industry (manufacturing or service) and time period (whether before or after legislation change in Sweden in year 1999). They found negative relationship between environmental ratings and market value of equity. This finding can be attributed to the cost-concerned approach. They provided following arguments in support of negative relationship:

- Environmental performance disclosures may be perceived as form of green-washing or window-dressing by investors and other stakeholders.
- Environmental responsibilities involve huge costs and therefore reduce firm's profitability.
- Investors are more interested in short-term gains but environmental efforts provide returns only in long-term.

However, findings of this study must be interpreted and used with caution since sample size is relatively small, research period is short and environmental performance measure used is also new and not commonly be employed in research.

2) **Brammer et al. (2006) [37]** used disaggregated approach and observed negative correlation between environmental and financial performance (as measured by stock returns). They further found that negative relation between aggregate social performance and stock returns can be largely attributed to environmental dimension due to large amount of expenditures involved in it.

3) **Roy and Ghosh (2011) [38]** examined bilateral association between economic performance and quality of voluntary disclosure of sustainable environmental practices in an Asian perspective, focusing on 7 Asian countries including India. The primary research results suggested that they were not simultaneously related. Further, study demonstrated a negative or very low positive and insignificant relation between them. However, study provided mixed results and no clear trend on the dependence of voluntary environmental disclosures on economic performance. Also, they observed that companies in environmentally sensitive industries make less objective and lower quality disclosures.

5.3 Mixed Relationship

Some studies provided mixed results and revealed no single precise association between environmental and financial performance. **Lankoski (2000) [13]** demonstrated an inverted U-shaped association between environmental and financial performance. It further suggested that this relationship is case specific and dynamic, and it varies in accordance with six main determinants of environmental profit- technology, regime, visibility, willingness to pay, benchmarks, and discount rate. **Cormier and Magnan (2007) [21]** argued that nature and level of association between environmental and financial performance (as proxied by stock market value of company) highly depends on regulatory reporting environment faced by the company.

5.4 No Significant Relationship

Some researchers found no statistically significant association between environmental and financial performance. **Deegan (2004) [39]** failed to find any significant association between environmental performance disclosures and stock prices. **Five important research studies** providing mixed results or demonstrating no significant relationship between environmental and financial performance are analyzed and summarized in **TABLE - 2** below.

TABLE - 2: Mixed or No Significant Relationship between Environmental Responsibility and Financial Performance of Firm

Study	Relationship	Sample Description and Data Sources	Key Findings and Conclusions	Remarks and Limitations (if any)
1. Gonzalez-Benito, J. and Gonzalez-Benito, O. (2005) [40]	Mixed and not significant	Sample: 186 industrial companies from 2002 Dun & Bradstreet census of 50,000 largest Spanish firms having more than 100 employees. ROA figures were collected from Dun & Bradstreet 2002 database.	Study found no single, precise or significant association between environmental proactivity and business performance. It argued that environmental proactivity and environmental management practices can provide competitive opportunities to firm, but some environmental	Future research should analyze competitive effects of environmental proactivity by developing contingent, dynamic and disaggregated approaches.

			practices have negative impact on business performance. Finally, no evidence was found to support that environmental proactivity ends in higher profitability, at least in short term.	
2. Cormier and Magnan (2007) [21]	Mixed - For German firms: Positive & For French and Canadian firms: Not Significant	French Sample: 237 firm-year observations; firms included in SBF 120 index; German Sample: 308 firm-year observations; firms included in DAX 30/DAX 70 index; Canadian Sample: 580 firm-year observations; firms listed on Toronto Stock Exchange 200 Index. Financial data for French & German firms is collected from Datastream and annual reports; while for Canadian firms from StockGuide.	Study concluded that interaction between firm's environmental performance disclosure and stock market value depends on reporting context that firms face. Results suggested that additional voluntary environmental reporting potentially reduces cost of equity of German firms; but it has neutral effect for French and Canadian firms.	Levels of environmental reporting vary between countries with Canadian firms reporting highest level of disclosure, followed by German, and then French firms.
3. Moneva and Cuellar (2009) [14]	Mixed - Significant for financial environmental disclosure; while Not significant for non-financial environmental disclosure	Study used regression model based on Ohlson equity-valuation model. Test period: 1996-2004. Sample: 124 firms listed on continuous market of Spanish Madrid Stock Exchange (all firms except financial and insurance companies)	Results suggest significant market valuation of financial environmental disclosures (investments, costs and contingencies), but not of non-financial disclosures (Environment policies and EMS). Both industry and size influence value relevance of environmental disclosures. Non-financial information disclosures have positive, significant, and greater value relevance for environmentally sensitive industries. Further, larger firms are more negatively affected because they disclose more environmental information about costs and provisions.	This paper adopts a new approach to explore this relationship by analyzing value relevance of different types of financial and non-financial environmental disclosures.
4. Jacobs et al. (2010) [41]	Not significant	Study identified keywords and phrases commonly used in announcements of environmental initiatives, awards, and certifications from different publications in US and Europe. Sample consists of 780 announcements (417 CEI and 363 EAC announcements) spanning 340 unique firms.	Study found that market did not react significantly to aggregated Corporate Environmental Initiatives (CEI) and Environmental Awards and Certifications (EAC) announcements. But there were significant market reactions for certain CEI and EAC subcategories. Specifically, announcements of philanthropic gifts for environmental causes are associated with significant positive market reaction, voluntary emission reductions are associated with significant negative market reaction, while ISO 14001 certifications are associated with significant positive market reaction.	Overall, the market is selective in reacting to announcements of environmental performance. Limitation: Use of event study methodology. Its application is limited to publicly traded firms and inherent noisiness of market data that can affect estimates of changes in shareholder value.

<p>5. Plumlee et al. (2010) [42]</p>	<p>Mixed, but Overall positive</p>	<p>Sample: US listed firms drawn from five industries (oil & gas, chemical, food/beverage, pharmaceutical, and electric utilities) over a six-year period (2000-2005). Data Sources: Firms' voluntary environmental disclosures in stand-alone corporate environmental or sustainability report or annual report; and TRI data & KLD data.</p>	<p>The study found (1) Positive association between voluntary environmental disclosure quality and future expected cash flows; and (2) Both negative and positive association between voluntary environmental disclosure quality and cost of equity capital. But study found positive link between disclosure quality and overall firm value.</p>	<p>They employed a modified Ohlson (1995) valuation model. Each item in the index is classified as hard (objective) or soft (subjective), and as positive/negative/neutral. The disclosure index is similar to one used in Clarkson et al. (2008) and Clarkson et al. (2010).</p>
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5.5 Impact of Firm Performance on Environmental Performance Disclosure

Some prior studies asserted that voluntary environmental reporting may be adopted by firms to deceive the stakeholders rather than to provide complete information about firm's real sustainable performance. It is generally argued that poor environmental performers (high polluting firms) make more voluntary disclosures on environmental performance (Clarkson et al., 2011) [43]. Thus, high environmental reporting does not necessarily imply high environmental performance. **Two important studies** in this regard are described below briefly:

1) Magness (2006) [44]: This study found that companies that maintain themselves in public eye through press release activity disclose more environmental information than other companies. However, there was no evidence to suggest that disclosure content is moderated by financial performance. It also found that if a firm seeks external finance during the year subsequent to an environmental accident, then it will significantly disclose more non-financial information. But limitation is that press release activity is only one type of strategic posture.

2) Clarkson et al. (2011) [43]: This study found that firms with higher pollution propensity disclose more environmental information and they also rely on hard disclosures that GRI views as inherently more objective and verifiable. Such findings raise concerns over the reliability of information so disclosed and signal a need for both enhanced mandatory reporting requirements and improved enforcement.

VI. CONCLUSIONS

Environmental Sustainability is the need of the hour. It has the potential to influence overall performance and profitability of organization. Many theories suggest environmental responsibility of firm like Legitimacy and Stakeholder Theory. Various quantitative and qualitative studies have investigated the relationship between environmental responsibility and corporate financial performance over the last few decades. But the results are mixed, inconsistent and often contradictory. This paper critically analyzes prior studies pertaining to this topic. Two major schools of thought emerge from the review of literature – 1) Cost-Concerned Approach, and 2) Value-Creation Approach. We organize the studies on the basis of relationship suggested by them, i.e. positive, negative, mixed and insignificant relationship to provide clearer results. In particular, we reviewed, analyzed and summarized 18 studies, out of which 16 studies treated environmental performance as independent variable. Out of these 16 studies, the majority of studies, i.e. 8 studies showed positive relationship, 3 showed negative relationship and 5 studies provided mixed or no significant results. 2 studies treated disclosure of environmental performance as dependent variable which demonstrated that environmental disclosures are influenced by corporate activities such as level of harmful emissions, press release activity, external financing, etc. Finally, it can be concluded from review of extant literature that corporate sustainability, social and environmental responsibility improve financial performance. The main arguments supporting this favorable positive impact include - good relations with stakeholders; enhanced reputation; ability to attract and retain qualified employees, investors and customers; cost savings; operational efficiencies; innovations; long-term orientation; better access to capital; secured license to operate and increase in competitiveness.

VII. RECOMMENDATIONS

Today, environmental sustainability has become imperative for worldwide companies to ensure its survival and to remain competitive. Thus, companies should strive to become green to avoid regulatory actions

in future. We observed from review of literature that high environmental reporting does not necessarily imply high environmental performance. Therefore, strictly enforceable law is required to ensure mandatory, transparent, verifiable and credible reporting in order to eliminate manipulative practices. Also companies should get their public reports externally assured from credible assurance providers like KPMG, EY, etc. to establish their image as a credible reporter in the perception of stakeholders. Without the credibility and trust that is put by stakeholders, business is impossible to run.

VIII. LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

Only selective and limited number of research papers has been reviewed in this paper. Further, we have only analyzed the impact of environmental dimension of sustainability on financial performance of firm. Future researchers should endeavor to review more studies in this area and empirically examine the relationship between corporate environmental responsibility and corporate financial performance. Also, future research in this area is required to examine the impact of other dimensions of sustainability (i.e. economic, social and governance), so as to arrive at more precise association between corporate sustainability and financial performance. Also, there is need to analyze the association between aggregate corporate sustainability and financial performance. Further, most existing researches have been carried out in the background of developed countries like UK, USA, Europe, etc. Thus, there is need to investigate this linkage in the context of developing countries like India.

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