Corporate Triple Bottom Line Reporting: An Empirical Study on the Indian Listed Power Companies

Sudipta Sahar Roy[1*] and Sarbani Mitra[2]

[1]Research Fellow, Department of Business Management, University of Calcutta, India
[2]Department of Public Systems Management (MPSM), Indian Institute of Social Welfare and Business Management, Kolkata, India

Abstract

Triple Bottom Line (TBL) approach is a proactive step in providing increased transparency and a broader framework for decision making. In this paper, we have considered listed companies of Bombay Stock Exchange (BSE) comprising BSE 500 index as our population. Considering time and resource constraints, it was decided to restrict the survey to only power generating companies (15 units) among those 500 companies. Annual reports/corporate social responsibility/sustainability reports for these 15 numbers of listed power companies were reviewed. For measuring the extent of corporate triple bottom line reporting in annual reports/corporate social responsibility reports/sustainability reports of the companies, we have constructed a weighted disclosure index based on the previous empirical studies. The study evaluated the combined corporate triple bottom line disclosure score value of the sample companies based on performance with respect to 3 primary indicators – environment, social and economic. The maximum score of corporate triple bottom line disclosure is high enough i.e. 77.3% and the minimum score of corporate triple bottom line disclosure is very low i.e. 22.6%. None of the sample power companies has attained more than 80% corporate triple bottom line disclosure score; on the contrary 40% companies have attained less than 40% corporate triple bottom line disclosure score.

Keywords: *Financial Reporting, Environment, Social Disclosure, Sustainability*

1. Introduction

Triple Bottom Line (TBL) is a societal and ecological agreement between the community and the businesses of the organizations. TBL "captures the essence of sustainability by measuring the impact of an organization's activities on the world ... including both its profitability and shareholder values and its social, human and environmental capital" (Savitz, 2006). TBL is an accounting framework that incorporates three dimensions of performance in an organization, namely, social, environmental and financial. This differs from traditional reporting frameworks, as besides financial part it also includes ecological (or environmental) and social measures where it is difficult to assign appropriate means of measurement. But with the current breakdown of confidence in financial reporting, large companies are facing increasing demands and expectations from stakeholders and are being held more accountable for their performance and actions. TBL approach is a proactive step in providing more transparency and a broader framework to the shareholders for decision-making. It's a great way for companies to disclose meaningful non-financial results. TBL dimensions are also commonly called the three Ps: People, Planet and Profits.

*Email: sudiptasaharoy@yahoo.com

Triple Bottom Line Reporting (TBLR) reflects a corporation's greater transparency and accountability in its public reporting, communication and disclosure with regard to how the corporate entity performs in its environmental, social and economic dimensions (Lewis, 2011). TBLR incorporates presenting what aspects or areas the business is doing well, along with the areas that need improvement. Reporting in this way demonstrates a drive towards increased transparency, which can mitigate concerns by stakeholders on hidden information. Everyone involved in the process of TBL, including employees and external stakeholders, can increase their knowledge of the company and expand their relationships with other stakeholders in the company. Participating in a learning environment is beneficial and necessary for a business to meet the goals of sustainability. The process of building a sustainable environment can lead to other disclosures on how the business world can lend a helping hand in protecting the natural resources that are quickly evaporating.

Our contribution to the triple bottom line communication literature is two fold. First, we assess the current state of triple bottom line reporting practice in India by power generating companies and also measure the qualitative characteristics of such reports through developing a scoring system.

The remainder of this paper is organized as follows. Section 2 presents the evolution of triple bottom line reporting. Section 3 reviews the literature relevant to this paper. Section 4 provides details about data and methodology adopted followed by a discussion of the findings relating to the extent of corporate triple bottom line reporting in section 5. Section 6 sums up and gives concluding remarks.

2. Evolution of Triple Bottom Line Reporting

A three dimensional view of sustainability came to prominence during the 1980s in response to a perceived conflict between environment and development. Concern for the environment was conceptualized as being about inter-generational justice - ensuring that future generations had equitable access to the world's resources. Development was about intra-generational justice - taking action to relieve the global injustices that prevail between those with abundant resources and those fighting for survival. TBL concept was evolved by Elkington in 1994 to expand the environmentalist agenda of those working towards sustainability so that it more explicitly incorporates a social dimension (Elkington, 2004). He used the phrase as the basis for his book *Cannibals with Forks* (Elkington, 1998), where he explained that TBL refers to the three bottom lines of "economic prosperity, environmental quality, and social justice" (*ibid.*, p. ix). For Elkington, it is the "social justice" dimension that completes the triple bottom line, and is the element of sustainability that businesses "preferred to overlook" (*ibid.*, p. 71).

Corporate social responsibility started to spread more dramatically towards the end of the 20th century when worries about the environment were beginning to grow (Stanislavská *et al.*, 2010), especially in connection with climatic changes, pollution, habitat loss, overexploitation of species, and the spread of invasive species or genes (Gordon and Reddy, 2010), which led to the development of environmental reporting (Stanislavská *et al.*, 2010). Thus, Waddock *et al.* (2002, cited in Miller, Buys and Summerville, 2007) believed one of the greatest pressures on businesses today is to be socially accountable. Corporate responsibility is often regarded as a response to the imbalances resulting from the acceleration of the globalization process and the underdeveloped international governance systems on environmental and social issues when compared to those for economic governance (Zadek, 2004, cited in Da Piedade and Thomas, 2006). To cope up with the globalized challenges, corporate all around the globe wants to consider applying a corporate sustainability plan by addressing their "Triple Bottom Line Reporting" which includes paying close attention to their economic (financial factors), environmental (risk and requirement factors) and social (human factors) issue (Dutta *et al.*, 2011).

To be sustainable, organizations need to think beyond 'the bottom line' and maintaining only financial certainty into the future will not be enough. Organizations aiming to continue to function in the long term, need to take actions to ensure that they contribute to the sustainable management of natural and human resources, as well as contribute to the well-being of the society and the economy as a whole.

3. Literature Review

Efficient financial reporting mechanism is based on three major pillars –environmental, economic and social causes which are colored TBL Reporting. The research work on TBL Reporting is limited, though TBL Reporting till date, is the most comprehensive approach to understanding corporate accountability. In this section the various literature threads in the area of TBL Reporting based research on different aspects will be discussed.

Vanclay (2004) argued that impact assessment, specially, social impact assessment, offers far more to those concerned about social justice and human welfare than does TBL. Mitchell, Curtis and Davidson (2007) concluded in their study that TBL reporting can enable organizations to better manage their response to the sustainability challenges when TBL reporting is approached as iterative learning cycle. Fauzi, Svensson and Rahman (2010) pointed out the contribution of TBL as sustainable corporate performance is that it principally highlights the connection between current business and social orientations and forth-coming planet-orientation, which is a spectrum not previously addressed seriously from a business perspective either in practice or literature. Slaper and Hall (2011) pointed out that the concept of TBL can be used regionally by communities to encourage economic development growth in a sustainable manner. Jackson, Boswell and Davis (2011) stated that in today's corporate world accountability is a necessity. This requires companies to extend their information beyond financial data. TBL connects the financial reporting with the business's everyday activities in away that provides a broader awareness of the impact of the business upon society. Dutta (2012) identified the critical need based development a new conceptual basis for generating accounting information in order to support multi-stakeholders interests and relationship and explains the logical development of an integrated sustainability reporting system founded upon the TBL of an organization's economic, environmental and social performance.

Ekwueme, Egbunike and Onyali (2013) recommended the adoption of sustainability reports for organizations seeking sustainable corporate performance. The improved transparency and accountability levels of traditional financial reports through inclusion of TBL principles could help corporations against legal hassle and surmounting stakeholder pressure.

4. Triple Bottom Line Reporting in India – A Survey

The level of sustainability reporting (SR) in India is in its infancy and still evolving. In India, there are various drivers behind the increase in dialogue, discussion and publication of sustainability reports – drivers that are somewhat different from other parts of the world. For Example, pressure from the NGO sector is low in India when compared to other countries. Pressure originates from increasing involvement in the global business environment. One thing clear however is that if our society has to survive, then it has to achieve a double digit growth for the next several years. If we bring the environmental and social concerns at the cost of growth, then it will not be acceptable. What would change the balance is how we integrate these concerns keeping our overall inclusive growth agenda intact. It will make SR more palatable and acceptable in our context.

In the Indian context, it is relevant to note that a beginning has been made by Yes Bank becoming a member of United Nations Environment Program – Finance Initiative (UNEP FI), which is an initiative to promote the integration of environmental considerations into all aspects of the financial sector's operations and services. While SIDBI has released a report as per GRI Guidelines, a few Indian banks are beginning to consider reporting on their non-financial parameters. In other international initiatives for sustainable development, corporate social responsibility and non-financial reporting, the involvement of our banks, financial institutions, etc. is peripheral or at a very nascent stage. More Indian companies expanding internationally and acquiring interests overseas and a rapid increase in foreign investment in Indian Corporates, have demanded transparency from "global audience" that has put pressure on Indian companies to start reporting on sustainability issues.

Within India, there has also been a change in the mindset and attitudes of stakeholders on issues relating to environmental and social responsibility. Another significant push factor has been the role of government as a stakeholder. India has historically had stringent laws on labor, environment, health and safety. Over the past few years the government has become increasingly proactive in addressing enforcement. Intense media attention and scrutiny on corporate social responsibility has also led to companies taking more cognizance of their activities and engagement with stakeholders.

The three dimensions for TBLR in India are people, planet and profit, which lead to sustainable development. The "People Bottom line" (human capital) pertains to fair and beneficial business practices toward employees and the community. The "Planet Bottom line" (natural capital) refers to sustainable environmental practices. Sustainability and global warming are real and critical issues that global businesses must deal with. The "Profit Bottom line" is the ability of an enterprise to create economic surpluses. Without profits, enterprises would be unsustainable.

4.1 The People Bottom Line

The key stakeholders associated with "People" dimension of the triple bottom line include (i) Local communities, and (ii) employees. The key areas are as follows:

- Activities selected in a way so that the benefits reach the smallest unit i.e. village, panchayat, block or district depending on the operations and resource capacity of the firm. Indentified CSR activities should generate community goodwill and create social impact and visibility.
- Implementation of community development interventions through specialized agencies, including community based organizations, panchayats, self help groups etc.
- Need to undertaking base line surveys prior to initiation of intervention and monitoring of CSR interventions through Social Audit Committee.
- Final evaluation of CSR projects by an independent external agency.
- Each firm should have a separate paragraph or chapter in its annual report on implementation of CSR activities.
- Large Indian firms have embarked on initiatives to position themselves as "model employer" offering opportunities for impactful roles with rich job content, rich perquisites, benefits and social security, hiring and retaining talent.

4.2 The Environmental Bottom Line

The following provisions have been incorporated in CSR Guidelines notified in April 2010.

- Need to develop a CSR action plan outlining key objectives and strategies over the short, medium and long term as against one of project based approach.
- Identified CSR activities may be related to United Nations Global Compact Program on Environment, with every firm taking the responsibility for restoring or compensating for any ecological damage taking place as a result of its operations.
- Implementation of community development interventions through specialized agencies, including community based organizations, panchayats, self help groups etc.
- Final evaluation of CSR projects by an independent external agency.
- Each firm should have a separate paragraph or chapter in its annual report on implementation of CSR activities including facts related to Physical and Financial progress

4.3 The Profit Bottom Line

The Government has taken a number of key initiatives towards empowering the Board of Directors of the firm and ensuring greater focus on the performance dimension. Some of the key initiatives are as follows:

- Notification of Corporate Governance Guidelines to be followed by all firms.
- Boards have also been empowered to independently take decisions on the important financial and non-financial business matters.
- All the firms are required to enter in to an agreement with their administrative ministry in the Government before the beginning of the financial year.

4.4 Sample Design

Initially, we have considered listed companies of Bombay Stock Exchange (BSE) comprising BSE 500 index as our population. BSE 500 is a broad-based index and represents 94% of market capitalization of all listed companies of BSE. Considering time and resource constraints, it was decided to restrict the survey only to power generating companies (15 units) among those 500 units. Secondly, as power generating units are considered as major polluting units, the study intends to assess the status of their TBL reporting practice. Accordingly, annual reports/corporate social responsibility/sustainability reports for these 15 numbers of listed power companies were planned to be reviewed and these 15 sample units were target units for further analysis. We have taken 2013-14 financial year (i.e. year ending 31 March 2014) as our study period, being the latest period for which annual reports/corporate social responsibility reports/sustainability reports are available.

4.5 Data and Methodology for the Study

As the current research is an exploratory study, Corporate Triple Bottom Line (CTBL) disclosure items are hand picked from the annual reports/corporate social responsibility reports/sustainability reports of the sample units after a thorough examination of the contents of annual reports/corporate social responsibility reports/ sustainability reports. Literature survey was used for the selection of corporate triple bottom line reporting indicators or disclosure items and their major sub-indicators. For measuring the extent of corporate triple bottom line reporting in annual reports/corporate social responsibility reports/ sustainability reports of the companies, we have constructed a weighted disclosure index based on the previous empirical studies with some modifications. It was decided to attribute some weightage to each of the indicators or disclosure items. Although attributing weightage is fraught with subjectivity to some extent (Das *et al.*, 2008), it was considered unavoidable given the lack of uniformity in triple bottom line related disclosure.

4.6 Selection of Indicators

There being no regulatory requirement (except energy efficiency related disclosure in Director's Report) CTBL disclosures are not structured. To show the trends in corporate triple bottom line disclosures and to analyze the extent and type of disclosure in a systematic manner, selection of some indicators was considered necessary. Based on the study of Elkington (2004), the study concentrated on three primary indicators and some major sub-indicators. Content analysis was used to place information within following 3 dimensions/ indicators:

4.6.1 Environment

Environmental Indicators cover performance related to inputs (e.g., material, energy, water) and outputs (e.g., emissions, effluents, waste). In addition, they cover performance related to biodiversity and environmental compliance.

4.6.2 Social

The *social* dimension concerns an organization's impacts on the social systems within which it operates.

4.6.3 Economic

The economic dimension concerns an organization's impacts on the economic circumstances of its stakeholders and on economic systems at the local, national and global levels.

4.7 Assignment of Score

Considering nature of work, we were required to consider corporate triple bottom line reporting of the sample power units. It was decided to attribute some score/weightage to all three indicators mentioned above considering their perceived importance towards CTBL disclosure activity for any power unit following the

Table 1. Indicator and Scoring System

Primary Indicator	Score/Importance
Environment	600
Social	300
Economic	100
Total	1000

Battelle Environmental Evaluation System (BEES)[i]. The break up of maximum achievable score for each indicator is given below (Table 1).

As each of the above indicators has some sub-indicators, the total score was distributed to each of the sub-indicators under each indicator according to its perceived importance following the BEES. Though it was subjective, but it was considered unavoidable (Wallace *et al.*, 1994). It is pertinent to mention here that after designing the scorecard, some revision was made based on discussion with the academicians, auditors as well as company executives working in the field of finance. The detailed scorecard that showed the CTBL disclosure score value for each of the indicators and sub-indicators is given in Table 2.

The study evaluated the combined CTBL disclosure score value of the sample units based on CTBL reporting with respect to the three primary indicators. Our assignment of score is based on attributes like comprehensiveness, clarity, relevance etc. Ultimately, to obtain Corporate Triple Bottom Line Disclosure Score (CTBLDS), following formulae was applied:

$$CTBLDS = \frac{Score\,Obtained}{Maximum\,Achievable\,Score} x100$$

5. Triple Bottom Line Reporting Practice of Indian Listed Power Companies

5.1 Extent of Triple Bottom Line Reporting

The results of our analysis of the content of annual reports/corporate social responsibility reports/ sustainability reports of 15 sample power companies showed that separate triple bottom line report or corporate social report is not common barring a few companies. All of the power companies made some form of triple bottom line related report and only 26.67% (4) power companies have their own stand-alone sustainability report besides their annual report. Regarding Indian practice of CTBL the survey results show that there is scope of improvement. Organizations are not reporting material matters that reflect the concerns of the stakeholders.

5.1.1 Environmental Dimension of Corporate Triple Bottom Line Report

The results of our analysis of the content of annual reports/corporate social responsibility reports/ sustainability reports of 15 sample power companies showed that all of the power companies made some form of corporate environmental disclosure. Of the various possible corporate environmental disclosure themes, it was found that company's statement of a corporate commitment to environmental protection accounted for 14 disclosures; the next highest numbers were environmental regulation (12), source, type and remedy procedures of emissions (11) and environmental impacts of principal products and services (11). Of lesser importance were incorporation of environmental concerns into business decisions e.g. green purchasing (1) and environmental contingent liabilities (1), though not a single power company discloses information about environmental audit; identification of a contact person providing environmental information; pollution impacts of transportation equipment used for logistical purposes; fines, lawsuits, or non-compliance incidents. These results are reported in following Table 3.

5.1.2 Social Dimension of Corporate Triple Bottom Line Report

Table 4 outlines the results for the degree of corporate social disclosure in the annual reports/corporate social responsibility reports/sustainability reports. All of 15 sample power companies made some form of corporate social disclosure. Of the various possible

[i]The Battelle Environmental Evaluation System (BEES) is a methodology for conducting environmental impact analysis developed at Battelle Columbus Laboratories by an interdisciplinary research team under contract with the U.S. Bureau of Reclamation (Dee et al., 1972; Dee et al., 1973). It is based on a hierarchical assessment of environmental quality indicators.

Table 2. CTBL Disclosure Scorecard

Sl. No.	Parameter	Score
1	Environment (600)	
1.1	Company's statement of a corporate commitment to environmental protection	70
1.2	Any mention of environmental regulation	28
1.3	Involvement of environmental experts in business operations	55
1.4	Environmental audit	28
1.5	Environmental awards	13
1.6	Incorporation of environmental concerns into business decisions e.g. green purchasing	55
1.7	Identification of a contact person providing information	13
1.8	Energy usage information	28
1.9	Encouragement of renewable energy consumption	28
1.10	Water usage information	28
1.11	Information concerning the materials that are recycled or reused	28
1.12	Any mention of strategy for the use of recycled products	28
1.13	Information about the source, type and remedy procedures of emissions	28
1.14	Pollution impacts of transportation equipment used for logistical purposes	28
1.15	Environmental impacts of principal products and services	28
1.16	Discussion of the amount and type of wastes and mention of waste management	28
1.17	Any mention of environmental accounting policies	28
1.18	Environmental expenditures	28
1.19	Fines, Lawsuits, or non-compliance incidents	15
1.20	Environmental contingent liabilities	15
2	Social (300)	
2.1	Company's statement of a corporate commitment to its shareholders and society	38
2.2	Awards received relevant to social performance	7
2.3	Identification of a contact person for providing additional information	7
2.4	No. of employees and their geographic distribution	7
2.5	Turnover of workforce	27
2.6	Levels of employee education	27
2.7	Employee benefits concerning health care, disability, retirement	14
2.8	Employee job satisfaction	14
2.9	Employee health and safety information e.g. number of lost workdays, accidents, or deaths	27
2.10	Employee training and education	27
2.11	Any mention of policy addressing workplace harassment and discrimination	7
2.12	Number of women & minorities	7
2.13	Policy or procedure dealing with human rights issues	14
2.14	Any mention of policy for preserving customer health and safety	14
2.15	Company's involvement in community philanthropic activity	14
2.16	Policy for prioritizing local employment	14
2.17	Policy for compliance mechanism for bribery and corruption	7
2.18	Policy for preventing anti-competitive behavior	7
2.19	Policy for consumer privacy	7
2.20	Provision of business code	14
3	Economic (100)	
3.1	Information about size and profitability	16
3.2	Identification of a contact person for providing additional information	2
3.3	Products or services breakdown	3
3.4	Market shares by region	10
3.5	Information on backlog orders	4
3.6	Information on major suppliers	5
3.7	Payroll information by countries or regions	2
3.8	Fringe benefits information by countries or regions	2
3.9	Information on major creditors	5
3.10	Discussion of social capital formation e.g. donations	6
3.11	Size and types of major tangible investments	6
3.12	Economic performance of major tangible investments	6
3.13	R&D investments	10
3.14	Investment in information technology	6
3.15	Other intangible investments e.g. brand value, reputation	6
3.16	Earnings or sales forecasts	6
3.17	Any mention of other forward-looking information	5
GRAND TOTAL		600

Table 3. Types of Corporate Environmental Disclosure

Theme of Environmental Disclosure	Companies Reporting	% of Total
Company's statement of a corporate commitment to environmental protection	14	93.33
Any mention of environmental regulation	12	80.00
Involvement of environmental experts in business operations	9	60.00
Environmental audit	0	0
Environmental awards	7	46.67
Incorporation of environmental concerns into business decisions e.g. green purchasing	1	6.67
Identification of a contact person providing information	0	0
Energy usage information	9	60.00
Encouragement of renewable energy consumption	10	66.67
Water usage information	9	60.00
Information concerning the materials that are recycled or reused	9	60.00
Any mention of strategy for the use of recycled products	6	40.00
Information about the source, type and remedy procedures of emissions	11	73.33
Pollution impacts of transportation equipment used for logistical purposes	0	0
Environmental impacts of principle products and services	11	73.33
Discussion of the amount and type of wastes and mention of waste management	5	33.33
Any mention of environmental accounting policies	5	33.33
Environmental expenditures	10	66.67
Fines, Lawsuits, or non-compliance incidents	0	0
Environmental contingent liabilities	1	6.67

Note: Some companies reported more than one theme and disclosure in Director's Report has not been considered.
Source: Annual Reports/Corporate Social Responsibility Reports/Sustainability Reports (2013-14) of Select Companies. Results computed.

Table 4. Types of Corporate Social Disclosure

Theme of Social Disclosure	Companies Reporting	% of Total
Company's statement of a corporate commitment to its shareholders and society	14	93.33
Awards received relevant to social performance	6	40.00
Identification of a contact person for providing additional information	1	6.67
No. of employees and their geographic distribution	3	20.00
Turnover of workforce	13	86.67
Levels of employee education	5	33.33
Employee benefits concerning health care, disability, retirement	14	93.33
Employee job satisfaction	9	60.00
Employee health and safety information e.g. number of lost workdays, accidents, or deaths	1	6.67
Employee training and education	8	53.33
Any mention of policy addressing workplace harassment and discrimination	2	13.33
Number of women & minorities	1	6.67
Policy or procedure dealing with human rights issues	1	6.67
Any mention of policy for preserving customer health and safety	4	26.67
Company's involvement in community philanthropic activity	13	86.67
Policy for prioritizing local employment	1	6.67
Policy for compliance mechanism for bribery and corruption	13	86.67
Policy for preventing anti-competitive behavior	0	0
Policy for consumer privacy	0	0
Provision of business code	15	100.00

Note: Some companies reported more than one theme and disclosure in Director's Report has not been considered.
Source: Annual Reports/Corporate Social Responsibility Reports/Sustainability Reports (2013-14) of Select Companies. Results computed.

corporate social disclosure themes, it was found that provision of business code accounted for 15 disclosures, the next highest numbers were company's statement of a corporate commitment to its shareholders and society (14); employee benefits concerning health care, disability, retirement (14); turnover of workforce (13), company's involvement in community philanthropic activity (13), policy for compliance mechanism for bribery and corruption and community (13). Of lesser importance were identification of a contact person for providing additional social information (1), employee health and safety information e.g. number of lost workdays, accidents, or deaths (1), number of women & minorities (1), policy or procedure dealing with human rights issues (1), policy for prioritizing local employment (1). None of the power companies disclose information about policy for preventing anti-competitive behavior and policy for consumer privacy.

5.1.3 Economic Dimension of Corporate Triple Bottom Line Report

Table 5 reports the results for the degree of corporate economic disclosure in the annual reports/corporate social responsibility reports/sustainability reports in case of 15 sample power companies. Of the various possible corporate economic disclosure themes, it was found that information about size and profitability; products or services breakdown; size and types of major tangible investments accounted for 15 disclosures each. Of lesser importance were identification of a contact person for providing additional economic information (4), information on major suppliers (4). None of the power companies disclose information about market shares by region, information on backlog orders, payroll information by countries or regions.

5.2 CTBL Disclosure Score of Sample Companies

5.2.1 Environmental Disclosure of Sample Companies

The study evaluated the environmental disclosure value of the sample power companies as reported in Table 6. Analysis of the environmental disclosure value reveals that out of 15 sample power companies, no sample companies has attained 100% score. The

Table 5. Types of Corporate Economic Disclosure

Theme of Economic Disclosure	Companies Reporting	% of Total
Information about size and profitability	15	100.00
Identification of a contact person for providing additional information	4	26.67
Products or services breakdown	15	100.00
Market shares by region	0	0
Information on backlog orders	0	0
Information on major suppliers	4	26.67
Payroll information by countries or regions	0	0
Fringe benefits information by countries or regions	6	40.00
Information on major creditors	7	46.67
Discussion of social capital formation e.g. donations	6	40.00
Size and types of major tangible investments	15	100.00
Economic performance of major tangible investments	7	46.67
R&D investments	12	80.00
Investment in information technology	12	80.00
Other intangible investments e.g. brand value, reputation	10	66.67
Earnings or sales forecasts	6	40.00
Any mention of other forward-looking information	13	86.67

Note: Some companies reported more than one theme and disclosure in Director's Report has not been considered.
Source: Annual Reports/Corporate Social Responsibility Reports/Sustainability Reports (2013-14) of Select Companies. Results computed.

maximum score of environmental disclosure is high enough i.e. 83.5% and the minimum score of environmental disclosure is very low i.e. 18.5% with the mean and standard deviation of environmental disclosure being 49.13% and 20.53% respectively. Figure 1 reveals that 6.66% companies (i.e. only one company) has attained more than 80% Environmental Disclosure Score; on the contrary 46.67% companies (i.e. 7 companies) have attained less than 40% Environmental Disclosure Score.

5.2.2 Social Disclosure of Sample Companies

The study evaluated the social disclosure value of the sample power companies as reported in Table 7. Analysis of the social disclosure value reveals that out of 15 sample power companies, no sample companies has attained 100% score. The maximum score of social disclosure is high enough i.e. 72.33% and the minimum score of social disclosure is very low i.e. 23% with the mean and standard deviation of social disclosure being 49.78% and 15.36% respectively. Figure 2 reveals that none of the power companies has attained more than 80% Social Disclosure Score; on the contrary 40% companies (i.e. 6 companies) have attained 40-60% Social Disclosure Score and 26.67% companies (i.e. 4 companies) have attained less than 40% Social Disclosure Score.

Table 6. Environmental Disclosure Score

Score (%)	No. of Sample Companies	% of Sample Companies
<40	7	46.67
40-60	1	6.67
60-80	6	40.00
>80	1	6.66
Total	15	100.00

Source: Annual Reports/Corporate Social Responsibility Reports/ Sustainability Reports (2013-14) of Select Companies. Results computed.

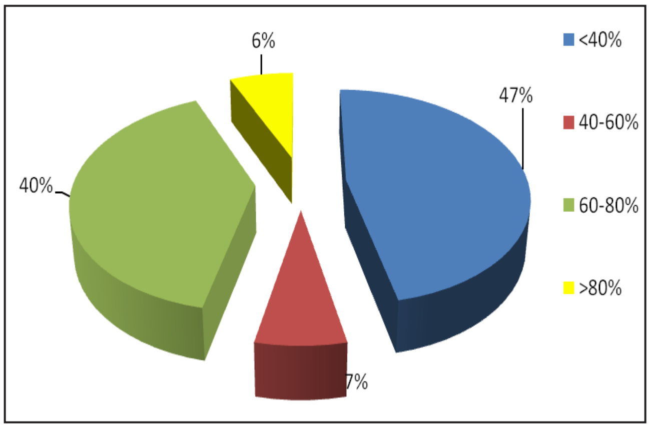

Figure 1. Environmental disclosure score of sample companies.

Table 7. Social Disclosure Score

Score (%)	No. of Sample Companies	% of Sample Companies
<40	4	26.67
40-60	6	40.00
60-80	5	33.33
>80	0	0
Total	15	100

Source: Annual Reports/Corporate Social Responsibility Reports/ Sustainability Reports (2013-14) of Select Companies. Results computed.

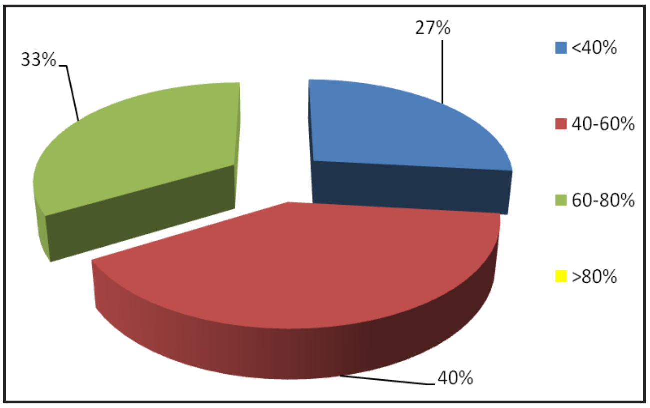

Figure 2. Social disclosure score of sample companies.

5.2.3 Economic Disclosure of Sample Companies

The study evaluated the economic disclosure value of the sample power companies as reported in Table 8. Analysis of the economic disclosure value reveals that out of 15 sample power companies, no sample companies has attained 100% score. The maximum score of economic disclosure is high enough i.e. 82% and the minimum score of economic disclosure is very low i.e. 30% with the mean and standard deviation of economic disclosure being 56.73% and 12.00% respectively. Figure 3 reveals that 6.66% companies (i.e. only one company) of the power companies has attained more than 80% economic disclosure score; on the contrary 60% companies (i.e. 9 companies) have attained 40-60% economic disclosure score and

Table 8. Economic Disclosure Score

Score (%)	No. of Sample Companies	% of Sample Companies
<40	1	6.67
40-60	9	60
60-80	4	26.67
>80	1	6.66
Total	15	100

Source: Annual Reports/Corporate Social Responsibility Reports/ Sustainability Reports (2013-14) of Select Companies. Results computed.

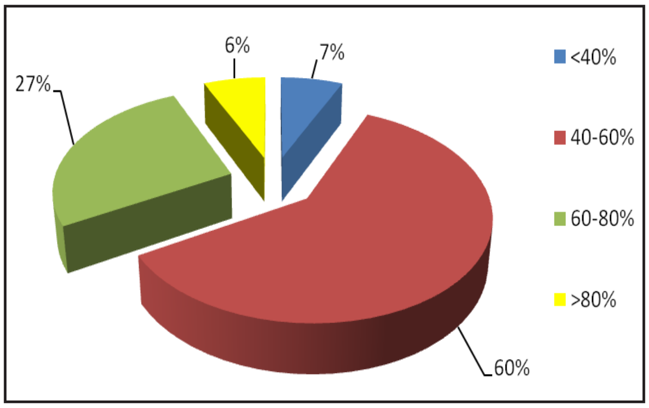

Figure 3. Economic disclosure score of sample companies.

26.67% companies (i.e. 4 companies) have attained 60-80% economic disclosure score.

5.2.4 Overall Corporate Triple Bottom Line Disclosure of Sample Power Companies

The study evaluated the combined CTBLDS value of the sample companies based on performance with respect to 3 primary indicators – environment, social and economic as reported in Table 9. Analysis of the CTBLDS value reveals that out of 15 sample companies, no sample company has attained 100% score. The maximum score of corporate triple bottom line disclosure is high enough i.e. 77.3% and the minimum score of corporate triple bottom line disclosure is very low i.e. 22.6% with the mean and standard deviation of CTBLDS being 50.09% and 16.98 % respectively. None of the 15 sample power companies has attained more than 80% corporate triple bottom line disclosure score; on the contrary 40% companies (6 companies) have attained less than 40% corporate triple bottom line disclosure score (Figure 4). 40% companies (6 companies) have attained 60-80%

Table 9. Overall Corporate Triple Bottom Line Disclosure Score

Score (%)	No. of Sample Companies	% of Sample Companies
<40	6	40
40-60	3	20
60-80	6	40
>80	0	0
Total	15	100

Source: Annual Reports/Corporate Social Responsibility Reports/Sustainability Reports (2013-14) of Select Companies. Results computed.

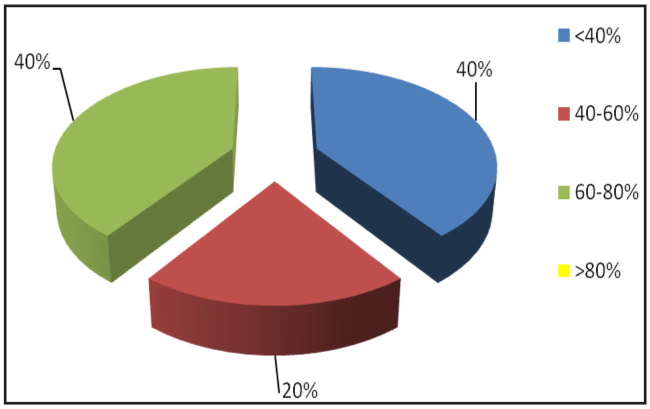

Figure 4. Overall corporate triple bottom line disclosure score of sample companies.

corporate triple bottom line disclosure score, whereas 20% companies (3 companies) have attained 40-60% corporate triple bottom line disclosure score.

6. Summary and Conclusion

The present study indicates that there is a scope of improvement in corporate triple bottom reporting practices of Indian companies. Although, a few companies have started to publish separate sustainability or corporate social report, there is lack of objective and informative reporting as demonstrated in this paper.

Multitude of directives regarding CTBL reporting poses a challenge on having a simple and credible framework for analyzing CTBL initiatives of the reporting companies. It must also be appreciated that given the diversity of industries it is unlikely that there could be a one-size-fits all structure. It may be hoped that a responsible company through its structured CTBL reporting would clearly demonstrate its committed approach (as opposed to simply complying) and such a company will deliver more valuable report to its shareholders incorporating their expectations. However, the scarcity of hard data that is publicly available on the business benefits of CTBL poses a challenge for companies who are trying to calculate the extent of their investment in CTBL.

For the immediate future, given the nature of the intangible benefits associated with CTBLR, the business situation is likely to remain less responsive. Despite the significant subjective evidence that exists today, more firms are unlikely to undertake CTBLR in the absence of a simple and credible framework for analyzing the business case, and quantifying the costs and benefits of CTBL. These significant issues require careful consideration by regulators and appropriate policy changes may be required for business organizations to report CTBL performance.

7. References

Das, D., Dhar, S., & Gandhi, S. K. (2008). Mandatory Disclosure in Annual Reports of Companies Listed in Indian Stock Exchanges: Extent and Determinants. *Indian Accounting Review*, *12*(1), 18–37.

Dee, N., Baker, J., Drobny, N., Duke, K., & Fahringer, D. (1972). Environmental Evaluation System for Water Resource Planning (to Bureau of Reclamation, U.S. Department of Interior), Battelle Columbus Laboratory, Columbus, Ohio, January, p. 188.

Dee, N., Baker, J., Drobny, N., Duke, K., Whitman, I., & Fahringer, D. (1973). An Environmental Evaluation System For Water Resource Planning. *Water Resources Research*, *9*(3), 523–535.

Dutta, S. (2012). Triple Bottom Line Reporting: An Indian Perspective. *Interdisciplinary Journal of Contemporary Research in Business*, *3*(2), 652–658.

Dutta, S., *et. al*. (2011). Triple Bottom Line Reporting: An Innovative Accounting Initiative. *International Journal on Business, Strategy and Management*, *1*(1), 1–13.

Elkington, J. (1998). Cannibals with Forks: The Triple Bottom Line of 21st Century Business, 2nd ed., New Society Publishers.

Elkington, J. (2004). Enter the Triple Bottom Line. In Henriques, A. & Richardson, J. (eds) *The Triple Bottom Line: Does It All Add Up?* London: Earthscan, pp. 1–16.

Ekwueme, C. M., Egbunike, C. F., & Onyali, C. I. (2013). Benefits of Triple Bottom Line Disclosures on Corporate Performance: An Exploratory Study of Corporate Stakeholders. *Journal of Management & Sustainability*, Canadian Center of Science and Education, *3*(2), 79–91. [ISSN 1925-4725 E-ISSN 1925-4733]

Fauzi, H., Svensson, G., & Rahman, A. A. (2010**).** "Triple Bottom Line" as "Sustainable Corporate Performance": A Proposition for the Future. *Sustainability,* 1345–1360. [*ISSN* 2071-1050] Retrieved from: www.mdpi.com/journal/sustainability.

Gordon, L. W., & Reddy, K. (2010). The Effect of Sustainability Reporting on Financial Performance: An Empirical Study Using Listed Companies. *Journal of Asia Entrepreneurship and Sustainability, 6*(2), 19–42.

Jackson, A., Boswell, K., & Davis, D. (2011). Sustainability and Triple Bottom Line Reporting - What is it all about?. *International Journal of Business, Humanities and Technology*, *1*(3), 55–59.

Lewis. (2011). in Ekwueme, C. M., Egbunike, C. F., & Onyali, C. I. (2013). Benefits of Triple Bottom Line Disclosures on Corporate Performance: An Exploratory Study of Corporate Stakeholders. *Journal of Management & Sustainability*, Canadian Center of Science and Education, *3*(2), 79–91.

Mitchell, M., Curtis, A., & Davidson, P. (2007). Can the 'Triple Bottom Line' Concept Help Organisations Respond To Sustainability Issues, *Proceedings of the 5th Australian Stream Management Conference, Australian Rivers: Making a Difference, Charles Sturt University, Thurgoona, New South Wales,* pp. 270–275.

Savitz, A. (2006). *The Triple Bottom Line,* San Francisco: Jossey-Bass.

Slaper, T. F. & Hall, T. J. (2011). The Triple Bottom Line: What Is It and How Does It Work?, *Indiana Business Review*, Indiana University Kelley School of Business, Indiana Business Research Center.

Stanislavská, L., Margarisová, K. & Štastná, K. (2010). International Standards of Corporate Social Responsibility. *Agris on-line Papers in Economics and Informatics*, *II*(4), 63–72.

Vanclay, F. (2004). Impact Assessment and the Triple Bottom Line: Competing Pathways to Sustainability? Sustainability and Social Science: Round Table Proceedings, University of Technology, Sydney, NSW, pp. 27–39 (ISBN 0 643 09127 0).

Waddock, S. A., Bodwell, C. & Graves, S. B. (2002). Responsibility: The New Business Imperative. *Academy of Management Executive*, *16*(2), 132–148, cited in Miller, Evonne; Buys, Laurie and Summerville, Jennifer A. (2007). Quantifying the Social Dimension of Triple Bottom Line: Development of a Framework and

Indicators to Assess the Social Impact of Organisations, *International Journal of Business Governance and Ethics*, *3*(3), 223 –237.

Wallace, R. S. O., Naser, K. & Mora, A. (1994). The Relationship Between the Comprehensiveness of Corporate Annual Reports and Firm Characteristics in Spain. *Accounting and Business Research*, *25*(97), 41–53.

Zadek, S. (2004). The path to Corporate Responsibility. *Harvard Business Review*, December, 1-8, cited in Da Piedade, L. and Thomas, A. (2006), The Case for Corporate Responsibility: Arguments from The Literature, *SA Journal of Human Resource Management*, *4*(2).

About the Authors

Sudipta Saha Roy is presently doing his Ph.D. in Business management from the Department of Management; University of Calcutta. He was awarded M.Phil. Degree from the Department of Commerce, University of Calcutta. He also serves as Assistant Professor in Commerce at Serampore College, West Bengal. His research papers were also published in several national and international journals. He has lots of interest in multidisciplinary current issues specially in Global Reporting Initiatives Guidelines. Sudipta Saha Roy can be reached at sudiptasaharoy@yahoo.com.

Dr. Sarbani Mitra is presently working as Associate Professor in the Environment Management Department of Public Systems Management (MPSM), Indian Institute of Social Welfare & Business Management, Management House, Kolkata. She was awarded Ph.D. in Business Administration under the Faculty of Science, Engineering & Technology from the University of Kalyani, West Bengal. She had published her research oriented papers in several national and international journals. She had also undertaken several research and consultancy projects which were funded by various public and private sector organizations, viz., World Bank, ADB, NTPC, WBPDCL, Adani Power, Reliance, etc. Dr.Sarbani Mitra can be reached at sarbani_iiswbm@yahoo.co.in