Research on Social and Environmental Accounting: Current Trends and Future Approaches

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Abstract: Climate change has attracted public awareness in recent years, which, in turn, has created potential opportunities and concerns for business. This paper examines the manner in which empirical studies on social and environmental accounting (SEA) disclosures have contributed to the existing knowledge. It combines theoretical and practical approaches to SEA to provide researchers with creative and holistic access to the knowledge. The study finds the literature on SEA to be far-reaching, flourishing, and employing exciting and diverse statistical methodologies to measure relevant disclosures. It goes on to analyze the theories, motivations, prior literature, and methodologies employed in international SEA literature. The present study contributes to the crafting of a systematic overview of the literature on SEA and opens up potential avenues for research in this discipline by combining current trends in theoretical and practical approaches to SEA research.

Keywords: environmental accounting, meta-analysis, methods, proxy, theory.

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INTRODUCTION

In spite of the fact that researchers in some underdeveloped countries are coming forward to study on topics related to social, environmental and climate change accounting, there are very few researchers who really can go beyond their national boundary with their publication. The reason behind this, among many others, can be the isolation from the international research. Due to lack of accessibility to the world literature, researchers in many countries are not properly introduced to the international research community. This situation limits researchers from knowing and getting adapted with the existing knowledge of the related area of international social and environmental responsibility (SER) research. This study gives a comprehensive understanding of the SER literature.
Having specified the scarcity and the aforementioned limitations, there are still various quality publications by researchers residing outside the national borders which enabled them to gather knowledge of SER research. This gives a signal that researchers who cannot go beyond national boundaries and suffering from accessibility issues does indeed hold the potential but lacks the access to the information regarding the existing literature. This study aims to make it accessible to the researchers in limited access to the literature beyond their country domicile. This study also sheds light in bridging the gap so that the local researchers can break through prestigious journals in the world, which include Accounting, Organization and Society (AOS); Critical Perspective in Accounting (CPA); Accounting Forum (AF); European Accounting Review (EAR); Accounting, Auditing and Accountability Journal (AAAJ); Journal of Cleaner Production (JCP); Social and Environmental Accountability Journal (SEAJ), the Journal of the Asia Pacific Centre for Environmental Accountability (JAPCEA) and Asian Journal of Sustainability and Social Responsibility (ASSR).

SER literature covers the reporting about environment, energy, employed human resources and also community involvement. Moreover, environmental disclosures also is a part of the term social responsibility disclosures in the literature (Deegan & Gordon, 1996). Researchers on environmental disclosure thus exposed to the whole social responsibility literature.

Classification Framework of Social and Environmental Accounting Studies

Gray et al. (2009) seeing the potential of SEA literature encouraged the evaluative and policy based approach to the subject matter of social accounting. Lindblom (1993) in this regard had identified four strategies that legitimize by organization to organization in facing consequential threats that challenges their legitimacy (for example – a case of a serious accident, a major pollution leak or a financial scandal), as - ‘educate’ its stakeholders, changing the stakeholder’s perception with concern of the matter or even distract the stakeholders’ (i.e. manipulate) attention far off from the matter and also to opt in changing the external expectations concerning performance parameters (Gray et al., 2009).

![Diagrammatic Portrayal of Influences on the Corporate Social Reporting](Source: Adams (2002))
Theories are developed to understand a phenomenon in a structured way. The area of social accounting is one such perceived idea or a consequence of theory. This facilitates people to have different values and views on what one tends to understand. A theory hence lays the foundation and a mechanism of how opinions are shaped with logic (Gray et al., 2009).

A key issue that lies with corporate social responsibility (CSR) is that it is not shaped by one’s needs, wants or even the traits of financial participants (Booth et al., 1987; Owen et al., 1987). Even though there has been many cases where it was seen that both social and environmental information worked as an influence in determining financial behavior (Harte & Owen, 1991), but the overall process leaves us off with many unanswered question and lacks proper logical explanation with due theories (Gray et al., 1995b).

With further investigation with this matter of concern, it was found that both theories of economic agency and positive accounting had nothing specific to offer in CSR’s existing scope (Belkaoui & Karpik, 1989; Gray et al., 1995b) as these do not really suggest or really conclude anything it only shows the point of market failure. Moreover, it challenges its very own assumption that states that in CSR all actions are to be motivated by a degenerated form of short lived self-interest (Bebbington et al., 1994). The assumption fails to make a mark as its not only found to be empirically implausible but also very offensive.

Modern CSR studies are much efficiently explained with the social and political theory and informs the parts of the more penetrating analyses of CSR, for example: stakeholder theory, legitimacy theory and political economy theory (Ullmann, 1985; Owen et al., 1987; Gray et al., 1988; Guthrie & Parker, 1989; Patten, 1992; Roberts, 1992). Economic domains are areas that do not accommodate to be studied in isolation without any political, social and/or institutional framework. Economic perspective supplements CSR to become a part of social and political literature (Gray et al., 1995b).

Legitimacy gaps and strategies, Lindblom (1993) identified four strategies for which corporation seeks legitimating. The first strategy opines that the organization can opt to educate its relevant publics about matters such as the changes in the firm’s activities and concerning performances. This step arises from the identification of the gap that was resulted from failure in performance of the organization. The second strategy suggests that the organization may opt out to change the varied perceptions of the relevant public in question but not their behavior. This step arises when the gap increases due to the misperceptions of the relevant public. This strategy helps to bridge that gap. The third strategy says that an organization may opt to manipulate the perceptions of the relevant public by deflecting attention. For example – emotive symbols, helps to deviate attention from the core concern to other related issues. This strategy is based on the premise of manipulation and illustrates when a company chooses to ignore a key issue like – the environment pollution in their legitimacy gap but fails to address it and drives the attention away by talking about charities and other involvements. The fourth and the final strategy suggest that a company may opt to change the external expectations and it’s performance. This strategy is considered when an organization just believes that the relevant public may have some unrealistic expectations of their responsibility. According to Lindblom (1993), these four strategies can be used for social disclosures.

Legitimacy theory has a scope of its application in Patten (1992), and even a greater extent of discussion was done by Guthrie & Parker (1989), that deals with capital machinery whereas Stakeholder theory deals with ownership of the organization (Gray et al., 1995b). Guthrie & Parker (1989) legitimacy theory posits that corporate disclosures are made as reactions to environmental pressures (economic, social, and political) and in order to legitimize the corporation's existence and actions. Ullmann (1985) seminal paper pioneers legitimacy theory in relation to powerful stakeholders. CSR actions and activities are expected to improve relationships with shareholders and other groups of stakeholders. Building a satisfactory reputation for the enterprise is strategic to sustaining relationships with different stakeholders and to improving access of capital.
financing; in other words, the financial and economic performance of an entity has a positive connection with its social responsibility (Ullmann, 1985; McGuire et al., 1988; Hasseldine et al., 2005).

These days more and more corporations are issuing sustainability reports, may be because of pressures from internal and/or external stakeholders (Ballou et al., 2006). Proponents of sustainability reporting claims for significant potential benefit towards the enhancement of disclosing firm's reputation (Brown et al., 2009). Guthrie & Parker (1990) found that most of social disclosures are reactive response to various social pressures exerted on the firm. They stated that corporations might make voluntary social disclosures in order to emphasizing the corporation's positive contributions to social welfare and highlighting its attempts to minimize its harmful effects on various elements of society. Sun et al. (2010) identified that incentives exist for managers to voluntarily disclose many environmental information with an objective to successfully attract existing and potential investors through enhanced corporate image of the companies, especially when they attempt to engage in earnings management. Agency conflict arises when managers engage in earnings management at any given opportunities to do so in order to turn the tables in their favor through voluntary carbon emission disclosures (CED) which is one of the means to secure their job posts was also used to create distractions to shareholders from monitoring earning management activities.

Sun et al. (2010) stated in his discussion that disclosures that are voluntary such as the CED are considered to be a necessity in demonstrating to the stakeholders that a company is aware of their wider interest and also is accountable in behaving socially responsible. CSR activities in general are very expensive hence firms usually obtain reductions in other major explicit costs. Corporate environmental disclosures give signals to investors and other powerful and economic stakeholders that the company is actively taking part in corporate social responsibility practices and that its market value is in a good position. Good corporate social performance helps a company to gain a reputation for reliability from capital markets and debt markets.

The main parties involved advocating for sustainability in reporting argue that there were many substantial pragmatic benefits that were (Brown et al., 2009). This method of reporting assists to retain employees with high calibre. It also helps to establish a position of a preferred supplier along with a basis for stakeholder dialogue among others. One of the benefits of sustainability reporting as identified by its proponents is enhancement of corporate reputation (Brown et al., 2009). Sustainability reporting can enhance brand and reputation (Woods, 2003; Ballou et al., 2006; Gray, 2006; Hasan & Yun, 2017; Lestari et al., 2019). Corporate managers also appear to believe that reputation enhancement is a strong benefit of sustainability reporting (Woods, 2003; Ballou et al., 2006; Gray, 2006). Brown et al. (2009) argued that corporate reputation can lead to substantial business benefit. He found that social and environmental reports qualities play a big role in building the reporting company's reputation. Low quality reports may erode its reputation.

Ballou et al. (2006) demonstrated in his study the substantial evidence that proves that a society demands a corporation to be more socially responsive. Studies of corporate reputation as a result of social and environmental reporting mainly entails Fortune Most Admired scores, which is derived from a sample limited to corporate executives, directors and financial analysts, whose beliefs may vary widely from that of society's. However, corporate managers are well aware of the potential for these reports.

In the regards of the sustainability reporting, the government of UK claims that even environmental reporting is of crucial importance mostly in corporate reporting. They also claimed that companies must report necessary environmental predicaments in their annual reports and also accounts which falls under the amendment of the Companies Act 2006 (Sun et al., 2010). This discussion argues to establish that building a reputation that is satisfactory is a key strategy in managing shareholder’s impressions. Moreover, the investment for a good corporate image reinforces competitive advantage of a company which in result
maximizes the shareholder’s wealth. Not only that, it also helps to retain the superior profits in capital markets (Hasseldine et al., 2005).

However, SER motivations are not free from criticisms. According to Brown et al. (2009) the authenticity of sustainability reporting is debatable. Corporate social reporting has been criticized, largely due to its voluntary nature as being both trivial (Gray, 2006) and disingenuous. Companies belonging to industries which are highly exposed to public policy process are have incentive to respond to these exposures through the social and environmental disclosure (Hackston & Milne, 1996; Deegan, 2002; Milne & Patten, 2002; Cho & Patten, 2009). But as these social and environmental reports are merely used to project an image of social responsiveness rather than a meaningful attempt to social accountability, the readers may perceive it as self-serving efforts to reduce political pressures, and thus viewed as disingenuous (Cho & Patten, 2009).

METHODS

Corporate Social Reporting has been an inclusive area of study in the academic accounting researches for over two decades. Even then, the literature does not possess the coherence it requires to be substantially genuine (Ullmann, 1985). The overall theories in CSR lacks a ground of agreeable theories among the researchers in the concerning field to drive the studies in a systematic theoretical perspective (Ullmann, 1985), the lack of such systematic reporting resulted in making the traditional researches more difficult if not ‘positive’ (Gray et al., 1995a).

CSR has continually posed doubts concerning its legitimacy focusing on the area of accounting research enquiries (Parker, 1991). The posed uncertainty and window of possibilities that consists the CSR are mostly instrumental. This, however, makes the subject matter more of an explicit political agenda than the traditional form in accounting research that most researchers have been historically found to handle (Tinker et al., 1991).

The two established distinctive approaches in CSR research was seen to have emerged in the literature (Gray et al., 1995a). One of these, CSR was seen to have been treated as an addendum alongside to conventional accounting activities and was researched with similar assumptions and conceptions which lead us to be aware of the mainstream accounting research. This extent of approaches usually considers the financial community as their principal users that ultimately limit the perception of ‘social’ accounting CSR. These can be seen to be articulated within the confines of conventional accounting.

The aforementioned approach along with its many limitations in its scope and efficiency were discussed by Owen et al. (1987). The secondary approach that was suggested as an alternative for CSR and SER reporting and was discussed at an examination in the role of information in organization-society dialogue. Even though the second approach was assumed to be considered too ambitious within the parameters of conventional accounting literature the broader scope shows both the facets of major advances and source of criticism in CSR literature. This technically means the failure of CSR to theoretically explain the organization-society relationship and leaves the argument rather flaccid and immanent (Gray et al., 1988; Tinker et al., 1991). No description is value- or theory-free (Tinker et al., 1982). The discussions and descriptions that are taken under this article tries to explain explicitly the ‘mainstream’ of the concerning literatures of CSR (for semiotic reasons, see Gray et al. 1995b) are put into theoretical framework (and analyzed subsequently) in a (broadly) neo-pluralist system within which many newer (to accounting and CSR) theories like- stakeholder theory, legitimacy theory and political economy theories are articulated.

The 20 years or more of empirical investigation of CSR practice have produced a very wide literature which engages many different theoretical perspectives – explicitly or implicitly (Tinker et al., 1991) employs
many different research methods; is motivated by a wide range of research questions; and covers many different countries and time-periods.

Despite both the diversity of concerns and approaches in the literature, and the diversity of countries, time-periods and samples selected for investigation, Gray et al. (1995b) carefully concluded about CSR practices the first of which does not seem to appear to be an activity in the system. The extent goes as far that it does not get covered by regulations and social disclosure as well in both the subjects in which it gives attention and in terms of the organizations that provides such disclosure. Secondly, CSR does not also seem to be related to profitability that too in the same time period. Ingram (1978); Abbott & Monsen (1979); Cowen et al. (1987); Belkaoui & Karpik (1989); Freedman & Jaggi (2005), although there is some evidence to suggest that it might be related to lagged profits (Roberts, 1992). Third, CSR does appear to be related to company size. However, this is not the most reliable of results, when no allowance is taken of other factors (Trotman & Bradley, 1981; Cowen et al., 1987; Andrew, 1989; Belkaoui & Karpik, 1989). Fourth, there were some evidences that suggested the industry effects but their studies does not clearly or consistently assess what, if any, these effects might have done in action (Cowen et al., 1987; Zeghal & Ahmed, 1990; Saha & Akter, 2012). Fifth, it was seen both the country and the origin of the organization in which its operating and is reporting have the ultimate ownership and effect (Andrew et al., 1989; Roberts, 1992). If the attained result is proved to be reliable this would help in some way to explain the reasons behind the inconsistency in them in different countries (Ullmann, 1985). It does indeed refer that the disclosures vary with both time and countries (Owen et al., 1987; Guthrie & Parker, 1989). The final inference is that it appears that there are a number of features that are related in drawing a social disclosure. They include the capital intensity (Belkaoui & Karpik, 1989); the age of the concerning corporation (Roberts, 1992); and some other matters such as the strategic posture, the attitudes of the senior executives as well as the social responsibility committee (Trotman & Bradley, 1981; Cowen et al., 1987; Roberts, 1992). The lack of detailed explanation leads to such tentative conclusions that comes in parts and shows what these relationships in actual holds of Ullmann (1985) opines that the systematic theorizing of CSR and the lack of thereof is a prime issue for drawing substantial and systematic conclusions about CSR.

There is an available literature describing the corporate social, ethical and environmental reporting (Gray et al., 1995b). However, aspects such as value creation and performance measurement have been neglected in the SEA literature, a gap that future research in SEA can fulfil. Guthrie & Parker (1990) undertook a comparative international analysis of corporate social disclosure practices in the US, UK, and Australia for 1983. They reviewed and documented disclosures related, to the environment, energy, human resources, products, and community involvement and other. They found that corporate social disclosures in Australia, as measured by pages within the annual report, were relatively low compared with the UK and US. In the UK, the US and Australia, the corporations appeared to similarly prioritize the types of social disclosures made. Human resource disclosures were greatest, followed by community involvement and then by environmentally related disclosures.

Deegan & Gordon (1996) demonstrate that as the readers of annual reports would have a general awareness of the potentially harmful activities those companies undertake, it is arguable that they would be cynical of firms that publish positive information in annual reports without any admission of the undertaking of environmentally harmful activities. Consistent with this, it could have been expected that firms would have an incentive to disclose negative information about the firm.

Authors (such as - Ullmann, 1976; Guthrie & Parker, 1990; Lehmann et al., 2009) argue that the operations of business entities and their reporting behavior could reasonably be expected to both influence, and be influenced by, the society in which they operate. In a sense, an organization can be construed to be operating within a 'social contract’ (Lehmann et al., 2009). A firm's disclosure policies represent a response to particular
groups’ demands, or perceived demands, for information. Deegan & Gordon (1996) advocate for larger firms since they are likely to have full-time salaried staff who are prepared to respond to research of academic nature.

Voluntary corporate disclosures in UK (Owen et al., 1987) and Australia (Deegan & Gordon, 1996) do not appear to provide environmentally informative reporting for emerging and developing countries. Research on social and environmental accounting is scarce in emerging and developing economies (Belal & Owen, 2007; Islam & Deegan, 2008; Belal et al., 2013). Even then very little is known about these emerging and less developed economies (Belal et al., 2013). Belal (2001) found that although a number of companies are making social disclosures, the quantity of information disclosed is very low. The nature of disclosure is mainly descriptive. These conclusions are similar to that of Imam (2000).

Andrew et al. (1989) confirm the low disclosure level and found human resource as the main category of disclosures. They found social and environmental disclosures are positively related to company size and argues that one of the key reasons is the visibility of larger companies and the way they are being monitored by the host government. Hence what it infers is that many such companies tries to go past the criticisms concerning the exploitation of resources in the growing economies by devising a CSR strategy. In Malaysia, Haniffa & Cooke (2005) studied about CSR disclosure, culture and corporate governance. In the study a valued relationship was found in between the ends of corporate social disclosures and boards that were dominated by the Malay directors, executive directors and many others with foreign share ownerships.

There are several studies (Imam, 2000; Ataur Rahman Belal, 2001; Belal & Roberts, 2010; Saha & Akter, 2013; Saha et al., 2013) in Bangladesh which shows the extent of CSR reporting in annual reports. None of these studies looked into the reasons behind the numbers, their increment or the opposite, which could be a major addition to existing knowledge of social and environmental reporting in emerging economies. Belal (2001) argues that the potential reasons behind the highest disclosures in Bangladesh is in ‘employee’ category and is also probably due to the reason of labor unions. He also points out that there is an emphasis on welfare of the workers in the currently in the policies of Bangladesh.

Belal & Owen (2007) in their literature also pointed out that the main drive in the Bangladeshi scene of CSR comes from the managing of stakeholder groups who in general are powerful. Not only that, they also pointed how the emerging CSR agendas in this country is driven by ‘outside forces’ that works through a parent company and instructs them. Islam & Deegan (2008) while investigating the social reporting trends in Bangladesh used interviews and the tool of content analysis to collect and legitimize theories on the concerning framework of the study.

The Government of Bangladesh started paying attention to the environmental management of Bangladesh since the 1990s and in order to improve the environmental condition, the Bangladesh Environmental Protection Act, 1995 was passed. At present, corporate environmental reporting is not mandatory in Bangladesh. A very few companies in Bangladesh are making efforts to provide environmental information on a voluntary basis, which are mostly qualitative in nature. But under the Bangladesh Environmental Protection Act, 1995, companies may be asked to disclose environmental information as and when required (Belal, 2000). The only mandatory environmental disclosure requirement in Bangladesh is the disclosure of expenditures on energy use (Saha & Akter, 2012). Under Schedule-XI, Part-II of the Companies Act 1994 and under Schedule, Part-II of the Securities and Exchange Rules, 1987, the total amount spent on the use of energy is to be shown in notes to the financial statements under a separate head of expenditure.

A number of prior studies investigated the impact of social and environmental reporting on market returns (Ingram, 1978; Blacconiere & Patten, 1994), research on the impact of social and environmental reporting on corporate reputation is very limited (Brown et al., 2009). Toms (2002) found a positive relationship between corporate social responsibility disclosure by U.K. firms and their corporate reputation.
Prior studies used this Most Admired scores as a measure of corporate reputation (e.g., McGuire et al., 1988; Brown et al., 2009; Chakravarty et al., 2009). Brown et al. (2009) did a research based on 59 U.S. based corporations and used Fortune most Admired scores. However, relative to others, the companies belonging to socially exposed industries suffer negative reputational effects to issuance of sustainability reporting. Additionally, companies issuing low quality reports suffer reputational detriments than high quality issuances. Their results suggest that only highest quality reports enhance corporate reputation. This research uses Fortune's Most Admired scores, which is based on based on survey results of corporate executives, directors, and financial analysts. But there are other stakeholder groups, e.g. employees, customers, and outside members of the society. It is also possible that these other stakeholders might interpret sustainability reporting, particularly low-quality reporting and issuances from companies in socially exposed industries, as disingenuous (Brown et al., 2009).

Fortune's survey has a financial focus, which may possibly not consistent with the underlying ethical perceptions of the assessing group. This may be an explanation of why the sustainability reporting not resulting in an enhanced reputational score. Here, Management views of sustainability reporting are suggested by the researchers. This may need an interview (Brown et al., 2009).

Gray et al. (1995b) tried to find out the reason behind the take-off of some areas of CSR disclosures. Mandatory disclosures are minimum, which the companies have to abide by. Among the voluntary disclosures, areas like Employee other was always the top priority of the corporations. This is because society is concern how the companies are performing their responsibilities towards their employees. Disclosures regarding environment and community performance see a sharp rise around the year 1988. In this period, Mrs. Thatcher's capital-owning democracy required the companies perform a role towards the society. Governmental policy was to regulate only and expected the business houses would perform their responsibilities towards society in the free and liberalized market economy (Gray et al., 1995b).

The CSR research expansion is mostly seen to be dominated by the US (Ullmann, 1985) but an extensive reach of the literature has also been listed in UK (Gray et al., 1988), Australia (Kelly, 1981; Trotman & Bradley, 1981); Guthrie & Mathews, 1985; Guthrie & Parker, 1989), and New Zealand (see, for example Guthrie & Mathews, 1985). Evidences shows that from inter alia, Canada (Zeghal & Ahmed, 1990), Malaysia and Singapore (Teoh & Thong, 1984; Andrew et al., 1989), Germany (Brockhoff, 1979; Dierkes, 1979), Mexico (Chow & Wong-Boren, 1987), Japan (Yamagami & Kokubu, 1991) and India (Maheshwari, 1992). In addition some comparative studies were done by Lessem (1977); Preston et al. (1978); Schreuder (1979); Guthrie & Parker (1990); Roberts (1992). In addition to country differences, Guthrie & Parker (1989) successfully pointed that special attention was needed in time dimensions influence on the disclosure practices. They also mentioned that the disclosure practice and the general interest of the researchers are not invariant of time (Gray et al., 1995b).

Influences and pressures portray an industry with a global image which can be more interestingly achieved by employing a country specific and industry specific reporting (for example, oil and chemicals industry). A set of different influences can be used to lead a specific outcome in a specific country-setting. While in certainty a group may expect the legislative environment of USA to act in certain responses, the UK in contrast might influence a different reaction (Guthrie & Parker, 1990) in this regard.

Belkaoui (1980) investigated three accounting treatments: 1) The conventional treatment, not including any information on abatement costs; 2) The footnote treatment, including abating cost information in the footnotes; and 3) The total treatment, including the abatement cost information in both the profit and loss statement and the footnotes. The differentiation between the footnote treatment and the total treatment was based on the general stipulation that detailed information may be more useful than aggregated data (Abdel-Khalik, 1973).
RESULTS AND DISCUSSION

Sample Size

The sample selection is influenced by the objectives of the study and is constrained by the availability of reports, time and resources available at the disposal of author (Belal, 2001). If the sample size is small, it inevitably includes unidentified bias in the selection. Consequently, no reliable and statistical inferences can be drawn from the study. The results arising from it can only be seen as tentative, not conclusive. Given the difficulty of obtaining reports in a developing country like Bangladesh where corporate culture is yet to develop, the above limitations seem to be inevitable (Belal, 2001). The descriptive studies requires a minimum sample size and that acceptable size is considered to be 10% of the population. Whereas, Krippendorff (2003) argues that there should not be any hard and fast rule for determining the sample size. Where all members of population are identical then sample size of one would be enough. When the population possesses members of different characteristics then larger sample size should be opted.

Research Context

Corporations used to use annual reports as a means to disclose social and environmental information. But standalone sustainability reports have shown a take-off in the last decade (Bebbington & Larrinaga-González, 2008). The corporate annual report is viewed as a means by which organizations seek to establish an image in the public sphere through voluntarily reporting, emphasizing the role of the annual report in constructing and presenting a ‘reality’ of corporate life (Hines, 1989). The annual reports of organizations listed on stock exchanges have often become a source of raw data for SER studies, and therefore have served as an instrument for observing voluntary reporting (Guthrie & Abeysekera, 2006). There are many ways, such as – internet, press reports and interim reports etc. that can help draft CSR. Other studies (Guthrie & Parker, 1990; Roberts, 1992; Gray et al., 1995a; Adams et al., 1998; Saha & Akter, 2012; Saha & Akter, 2013) consider disclosures made in the corporate annual reports only. The reason is the annual report is the most common and popular document produced by the companies regularly. In Bangladesh, annual reports are considered as the major means through which information about the company is communicated. Given the low level of technological development, it is unlikely that companies in Bangladesh will undertake Internet reporting. Further, there are very little or no alternative forms of CSR in existence. Therefore, it is believed that by focusing on the annual reports it is possible to understand the CSR in Bangladesh (Belal, 2001). However, Unerman (2000) argues that exclusive focus on annual reports may lead to an incomplete picture of CSR practices.

Content Analysis

Content analysis has been used extensively in social and environmental disclosure research to proxy the quality of information disclosures (Wiseman, 1982); (Blaccoberie & Patten, 1994). It requires reviewing the document for the presence or absence of disclosure across selected areas of information (Brown et al., 2009). Ballou et al. (2006) argued that GRI is the most dominant reporting regulation in the social and environmental arena. As such Brown et al. (2009) also used the GRI recommendations as their measure of quality. Based on a review of
the GRI’s G2 and G3 reporting guidelines, they developed a coding scheme identifying 55 environmental and social performance indicators.

The presence and absence of disclosures were reviewed by one research team member from the sample reports. For each area of disclosure, one point was awarded across each indicator. The assurance of the accuracy of the coding was reviewed independently by another member of the team (Brown et al., 2009). A number of previous studies use content analysis method to gather data on disclosure in annual reports (Guthrie & Parker, 1989).

Researchers in the field of social environmental accounting (SEA) have, according to Parker (2005), used content analysis as the dominant research method for collecting empirical evidence. He based this observation on a study of the SEA literature published between 1988 and 2003. Parker identified other research method categories which have been less used: case, field or interview studies; surveys; literature, theory and commentary; and experiments. He found that over the 1988-2003 study period, 52 per cent of papers published belonged to the ‘literature, theory, commentary, methodological’ category; and 48 per cent to empirical studies. Of the empirical studies, content analysis represented 19 per cent; case, field and interview studies 12 per cent; surveys 15 per cent; experimental studies 1 per cent; and combined 1 per cent.

Content analysis is a method of codifying the content or text of a piece of writing into categories based on chosen criteria. This method is used to measure the quantity and nature of social disclosure (Krippendorff, 2003). The technique has been in wide use in CSR (Abbott & Monsen, 1979; Zeghal & Ahmed, 1990; Gray et al., 1995a; Williams & Pei, 1999). This method has been a technique that gathers data by codifying qualitative information that is anecdotal and literary in form. It also categorizes them to derive quantifiable scales of different levels of complexity (Abbott & Monsen, 1979).

Coding for Content Analysis

In the accounting literature debate has arisen regarding the use of words, sentences or portions of pages as the basis for the coding (Gray et al., 1995a). Gray et al. (1995a) suggested that sentences count is preferred because a full sentence can communicate a meaningful idea. Most SER content analysis uses sentences as the basis for coding decisions. Using sentences for both coding and measurement is likely to provide complete, reliable and meaningful data for further analysis (Milne & Adler, 1999). Another unit of analysis is the paragraph. The paragraph method is more appropriate than word count for drawing inferences from narrative statements, as meaning is commonly established with paragraphs rather than through the reporting of a word or a sentence. Usually the volume of disclosure is measured by counting frequency at both category and element levels. An overall index of a firm is calculated based on the total volume of information disclosed. Also, disclosure indices are often calculated for each category. Unerman (2000) usefully presented arguments for measuring the volume of SER disclosures in terms of proportions of a page, taking into account non-narrative SER disclosures, e.g. charts, tables, photographs etc. Although, Wilmshurst & Frost (2000) excluded pictures in their analysis, they indicated that this was a limitation because of the possibility that pictures might be used by company authority to manage stakeholders perception towards the management of environmental issues. However, quantifying the impact of pictures and graphs depends on subjective judgments. Wilmshurst & Frost (2000) argued that “a picture may be worth a thousand words”, but to measure pictures based upon an unweighted word count is highly subjective. Further, some pictures cannot deliver the intended message without the surrounding text. These arguments complicate the debate as to the weight that should be used to determine the amount of disclosure that is represented by a picture.
To facilitate coding, Guthrie & Abeysekera (2006) divided the annual report into five sections: the vision/strategy; the directors’ report; the business/operational reviews; the financial reports; and the remaining sections. The nature of disclosure is categorized as either qualitative – where usefulness of the disclosures is noted and quantitative- where the incidence of occurrence (i.e., number of paragraphs) is noted.

According to Milne & Adler (1999), reliability of content analysis involves two separate issues. First, it is necessary to attest that the coded data set produced from the analysis of content is reliable. This is usually achieved by the use of multiple coders and by reporting that the discrepancies between coders are minimal. Another factor to consider to ensure reliability is the objectiveness of the coding instrument. Establishing the reliability of particular coding tools (i.e., ensuring well-specified decision categories with well-specified decision rules) reduces the need for multiple coders.

Guthrie & Abeysekera (2006) detailed three specific methods that increase the reliability in recording the data as well as analysing them. The first one suggests selecting the disclosure categories. These are the methods that increase the reliability in the recording and analysing of the data. First, it is suggested by selecting the disclosure category from a well-structured literature as well as defining them. Second, by finding the reliable coding tool with specific decision classes and rules and third, by training the coders and showing that the coding decisions on pilot project has an acceptable level of outcome.

There are several limitations in the use of content analysis (Gray et al., 1995a; Milne & Adler, 1999; Unerman, 2000). The first is the recognition that it captures quantity of disclosure (in terms of frequency and volume of reporting) rather than quality characteristics. The second is that it is subjective, in that it is capturing various narratives as a representation of SER (Guthrie & Abeysekera, 2006). In relation to the first limitation, researchers have cited several studies as evidence that content analysis has failed to explain the quality of reporting in SEA. For instance, Deegan & Gordon (1996); Deegan & Rankin (1996) examined the volume of news of the disclosure as an indicator of its quality. Guthrie & Parker (1989) examined theme, evidence (monetary, non-monetary, declarative, none), frequency of reporting, and location of a disclosure to infer its quality.

Gray et al. (1995a) examined themes, evidence, frequency of reporting, and news. Hackston & Milne (1996) examined the amount of disclosure, themes, news and evidence. These researchers highlighted the difficulty of relating findings to the quality of reporting. The second limitation is that the subject matter being investigated, the narratives of social and environmental reporting must be captured by the coding instruments (Deegan & Rankin, 1996; Wilmhurst & Frost, 2000). Milne & Adler (1999) emphasised that in order for valid inferences to be drawn from content analysis, reliability of both the data and the instrument must be achieved.

Deegan & Gordon (1996) identified two major limitations associated with the use of content analysis to measure disclosure quantity. First, there is a necessary element of subjectivity involved in determining what constitutes a particular type of disclosure (Zeghal & Ahmed, 1990). Given the potential problem caused by subjectivity, a number of the reports were analysed independently by both researchers. Word counts did not significantly differ. Second, the significance of a disclosure may not be meaningfully represented by the quantity of disclosure (Beck, 2010). It is submitted that these limitations are unlikely to significantly affect the validity of this study's findings. By counting words, which are the smallest possible units of analysis, maximum robustness to error in calculating quantity of disclosure is achieved (Zeghal & Ahmed, 1990). Furthermore, as they point out, the difficulties associated with content analysis are greater when a small sample of disclosures is examined. Deegan & Gordon (1996) found that the environmental disclosures within the sample are largely qualitative in nature. The disclosures are typically found within the companies' chairman's report, managing director’s report or equivalent. Belal (2001) used average number of lines to measure the amount of disclosures as the sample firms made a meagre amount of disclosures making it unsuitable for other measurement units.
such as, page, sentence or paragraph. However, there are problems associated with the measurement by number of lines. For example, in the case of the use of graphs or pie charts, measurement difficulties may arise.

**Disclosure Index**

This research paper includes the necessary disclosure indices that worked as the tool for identification of environmental disclosure in annual reports (Wiseman, 1982; Hackston & Milne, 1996; Milne & Chan, 1999; Hasseldine et al., 2005; Clarkson et al., 2008; Sun et al., 2010; Beck et al., 2010; Rankin et al., 2011).

**Independent Variables Used**

The inconsistent size effects may be a case that can be easily speculated. The size might not be a perpetual function in regards to CSR, like – firstly, the small local organizations might go through other means of communications and transparency; and, secondly, the financial size may likely be less important than political presence and public visibility. But in certainty, the factors like-size and industry were not merely enough to distinguish these organizations that produced high-profile environmental reports in UK mostly in the early 1990s (Gray et al., 1995b). In contrast, other factors, such as- the public profile and the commitment of CEOs, were a provisioned gross basis for differentiation (Gray et al., 1994). Brown et al. (2009) concluded to have found no significant relationship between the reputation of the corporation and all the standalone sustainability report publications. However, after further investigation they had found a negative relation between the two in case of socially exposed industries if the report quality is low. Because of the expansion of disclosure practices, there is a growing interest in the academic community to explore what motivates each corporation to report on issues that concerns their sustainability (Adams, 2002; Bebbington & Larrinaga-González, 2008).

Trotman & Bradley (1981) investigated a few factors regarding the companies that provided social responsibility and suggested that the companies disclosing the social responsibility information were mostly large in size, dealt with higher systematic risk and also emphasized on long term objectives than other companies of the lot. Guthrie & Parker (1989) stated that the environmental groups and publicises a company’s poor environmental performances and this in turn has affected agreements with consumers and suppliers of the firm along with its factors of production. Environmental groups are also said to have directly lobbied government for bringing changes in the legislation and the product standards in regards to the companies or industries, in question. With this onset, Deegan & Gordon (1996) found that there is a possibility of positive correlation between environmental sensitivity and the level of corporate environmental disclosure.

Firm size has consistently played a significant role involving voluntary social responsibility disclosures (Trotman & Bradley, 1981). There were a variety of measures that were found to have used as a proxy for firm size. Hence, this suggests that the relationship of the firm’s size cannot be a generalized factor especially to firms that are not environmentally sensitive. So, it’s safe to conclude that only the companies that operate in environmentally sensitive industries can establish a relationship between size of the firm and the amount of environmental disclosures. The overall evaluation of the relationship establishes a reasonable argument assuming that if an industry seems to be damaging, keeping all other factors a constant, the assumption would lead us to larger firms that incurs more environmental costs unless provided with evidence of otherwise.

With due investigation, the impact of the concerning systematic risk that were subjected to corporate environmental reporting (CER) disclosures and were found to have weak negative associations (Roberts, 1992).
These negative associations were found in US data along with a highly significant negative association in UK data (Toms, 2002; Hasseldine et al., 2005). These study approaches McGuire et al. (1988), suggests that systematic risk is an important determinant of CER as managers that deals with lower risk companies are more accessible to make stable cash flows which allowing them to make such investments (Roberts, 1992; Hasseldine et al., 2005). But these are not the only factors that play a cause and effect relation with this hypothesis that associates CER and systematic risk.

Sun et al. (2010) stated three theoretical frameworks which consist of – signalling, agency and stakeholder to sketch out the relation of a corporate environmental reporting and earnings management. Having found no significant associations between the two, the outcome suggested that the managers from UK were in fact not using the environmental disclosure as the approach that was suggested to reduce the probability quotient of public policies.

Reputation Proxy

In measuring CER, many studies use the data made accessible by the US Council on Economic Priorities. These data represents the concerns of pollution (Toms, 2002; Hussainey & Salama, 2010) or disclosure (Trotman & Bradley, 1981; Roberts, 1992). McGuire et al. (1988) was an exception who used Fortune’s responsibility to conduct the community and environment ratings. The latter further employs broad bases and different repeated measures by creating the possibility of a large sample panel survey. McGuire et al. (1988) conducted their research shortly after the concept of the Fortune ranking incepted and could only access 3 years of historical data while ranking.

Moving forward, Salama et al. (2011) examined the nature of relationship between corporate environmental performance and firm risk for the first time. It was done with regards of the British context where they successfully concluded that a company’s environmental performance is inversely related to its systematic financial risk. In doing this research, it presented panel dataset as evidence from United Kingdom based firms. In addition, it used as a measure that equated to the Fortune rankings as a proxy for CER and hence measured its impact on risk using a historical 13-year panel dataset. The research further emphasized its importance by the use of largest dataset used so far, which included CER rankings for all rated UK companies between 1994 and 2006.

Salama et al. (2011) suggested that further research may examine whether this outcome applies in other countries (e.g. the United States), particularly when employing a larger environmental performance parameter and database. Further investigations may also include looking at individual industries. For example - the CER–risk relationship can represent a much stronger focus for oil companies than retailers. But research explains how variant factors will result in constraints by the limited availability of data.

CONCLUSION

The notion of the study was to systematically overview the existing international renowned literature. This is with a view to making this literature available to the emerging scholars to whom the international literature is not easily accessible in the existing system of subscription based journals. This study covers the established international literature on SER research, most used theories to rationalise the arguments in the field, importance and motivations of such research works, prior seminal works, prior seminal works outlining the reasons for such disclosures and research, accounting treatments advancements in the field, details research
methods used in the field. This study contributes with its details analysis of the mainstream studies in the SER research. Further research might include more detailed insightful analysis of the literature and application of the techniques outlined in this study.

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