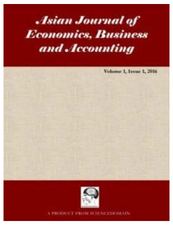

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Environmental Reporting Practices by Listed Manufacfuring Firms: The Perspective of an Emerging Economy

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Authors' contributions

This work was carried out in collaboration between all authors. The statistical analysis was done by authors EM and HM. Author EM wrote the protocol and first draft of the manuscript. Authors EM and KF wrote the study design. The literature review was written by authors HM and KF. All the authors read and approved the final manuscript.

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ABSTRACT

The study examined the environmental accounting practices among listed manufacturing companies in Ghana. The study utilised the survey and descriptive research approaches. The annual reports of all manufacturing companies listed on the Ghana Stock Exchange from 2009 to 2015 were targeted for the analysis. However, only eleven companies had available annual reports covering the study period and thus were included in the study. Assuming an interpretative approach, the study analysed the content of the annual reports of the selected companies using a Likert Scale-designed evaluation matrix. A panel dataset of sixty nine (69) firm year observations were used. The data were analysed with SPSS and presented in the form of mean ratings in tables. Generally, the level of disclosures on the environmental activities of the companies was weak. The study observed a marginal increasing trend in the level of environmental information disclosed among the firms, suggesting that the quality and quantity of social information reported by the

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companies were increasing over time. Information on employees, information on empowerment of local people, and information on local economic development including infrastructure investments were disclosed to some extent. Surprisingly, some important categories of disclosures such as the occupational health and safety information, description of human and labour practices, information on national service and internship programmes and information on incidents of corruption were not adequately disclosed. Based on the results of the study, it is concluded that the manufacturing firms listed on the Ghana Stock Exchange have not adequately integrated environmental accounting in their reporting practices.

Keywords: Environmental accounting; social responsibility reporting; Ghana Stock Exchange; corporate reporting; evaluation matrix; content analysis.

1. INTRODUCTION

The idea that the traditional definition of a "business and what it exists for" is not enough, is increasingly gaining popularity. In recent times, many businesses have begun to recognise and report on the effect of their activities on the environment and community which gives them their legitimacy. The Conceptual Framework of Financial Reporting recognises various stakeholders and user-groups that utilise the information provided by firms. These users comprise investors, employees, lenders, suppliers and other trade creditors, customers, government and their agencies and the general public. The information provided by companies are needed by the users for various reasons; both financial and non-financial. Such information help users to take decision ranging from investment decisions, employment decisions, legal decisions, buying and selling decisions to decisions on philanthropy. Increasingly, owners and other stakeholders of businesses around the world have begun to recognise their need of relevant and reliable information to assess the value impact of a business' activities, plans and changes in a business' environment on the society, environment and even on posterity. Nonetheless, it seems the information provided by many companies have yet to catch up with the pressing needs of varied stakeholder groups. As [1] contends, shareholders' needs appear to overshadow that of others because the information provided over the years have purely been financial. Meanwhile, other stakeholders in a company need other information besides financial information.

The call for businesses to 'balance' in their corporate reporting, the varied needs of their wide stakeholder groups, have long been advocated. For instance, [2] developed and advocated the use of a balanced scorecard for measuring both financial and non-financial objectives of businesses which have become more prominent in recent times. [3] assert that, present day corporate reporting covers financial and non-financial data which requires extensive inputs from non-financial experts. Furthermore, the promulgation of guidelines on environmental and sustainability reporting by organisations such as the Global Reporting Initiative (GRI) in 2000, and more recently, the 'G4' guidelines issued in 2013, coupled with around 20 award schemes established worldwide for environmental reporting, has culminated in the emergence of a new global reporting regime called environmental accounting and reporting. [1] defines environmental accounting (environmental and social reporting) as the process of explaining how an organisation creates value over time and demonstrate the linkage between strategy, governance and financial performance in addtition to the social, environmental and economic contexts within which it operates. [4] report that, there has been a consistent development in social, environmental and ethical reporting over the past four decades, with integrated reporting developments growing significantly over the last decade. Again, [5] posit that, since the turn of the twenty-first century, an increasing emphasis has been placed on overstepping stand-alone ethical, environmental, social responsibility and sustainability reporting such that corporations and firms are now expected to integrate sustainability and governance information within the annual report. Such integration is viewed as essential if businesses are to make accountability to various stakeholders core of their operations in a meaningful way [6].

On the world stage, the issue had been discussed repeatedly in a series of international summits since the early sixties [1]. [1] reported that, between 1968 and 1972, two international conferences were held to assess the ills of the global environment and to suggest corrective actions. One of the pivotal events in the growth of the global environment movement was the UN conference on human and environment (Stockholm Conference) held in June, 1972. It was the first occasion on which the political, social and economic problems of the global environment were discussed at an inter-governmental forum with a view to taking corrective actions. Since then, [6] reports that many countries have attempted to integrate social and environmental accounting data with national income to compute economic development. [7] however point out that, such attempts do not really tackle the micro economic aspects of environmental data especially the interactions between a specific firm and the environment. The authors maintained that the accounting of relations between firms and the environment is a requirement to find out sustainability reporting gaps. It is common knowledge that most of the activities of economic development have unfavourably affected the environment.

Horvat and Korošec [8] argue that the information needs gap between investors and other stakeholders, especially the community, calls for more complete picture of value and information currently being reported by companies. [6] also posits that there is growing awareness that simply narrating the story about a company's value creation no longer suffices. Investors and other stakeholders are now increasingly demanding that companies not only show their value creation performance but also the effects of their value creation activities on the society and the environment, as well as how they are being managed [6]. In light of this precedent, investors, potential investors, government, society and other stakeholders especially within the manufacturing and extractive industries, whose activities affect the environment the most, should be fully aware of all potential environmental and social liabilities of companies, not only as they may give rise to losses in such companies and hence result in diminution in the value of their investment, but also because it is also conceivable that the shareholders and other stakeholders need other non-financial information to aid them take decisions. The gap created between information currently being reported by companies and information stakeholders and investors need to assess business performance, prospects and value is thus becoming one of much concern. Environmental accounting can help fill the gap by providing a basis for companies to explain their value creation more effectively to the capital markets [7] and the general public who might be less interested in the financial information. In consonance with the views of [7], [9] also opines that environmental accounting can help readers look beyond companies' short term results to form clearer and holistic views on long term value.

It is thus important to disclose in equal measure, environmental and social information whose aim is to tell the whole story of a firm, how it creates value, the strategy, risks, threats and opportunities of its business model and also gauge performance against strategic objectives. The foregoing discussion demonstrates the growing importance of environmental accounting as its implementation is becoming a crucial issue in many economies. Quite a number of studies (such as for e.g. [1], [3], [6], [7],[8] and [10] conducted on the subject matter, as well some other organisational initiatives such as those of GRI and 'G4', demonstrate how companies are embracing environmental accounting. Though these studies conducted on environmental accounting practices around the world sheds some light on how environmental accounting and reporting is gaining momentum and acceptance, the practice is still underdeveloped and yet to gain national as well as global acceptance. Moreover, a scan through literature on the subject matter in Ghana revealed studies on environmental accounting are scarce. The motivation for this study is to attempt to fill that gap by undertaking a study to ascertain the environmental accounting practices among listed manufacturing companies in Ghana.

2. LITERATURE REVIEW

2.1 Theoretical and Conceptual Review

A review of theoretical literature revealed that the theories that have often been used to justify environmental accounting or reporting are: legitimacy theory, stakeholder theory, equity theory, agency theory and institutional theory.

2.2 Legitimacy Theory

The legitimacy theory relies on the assumption that there is a 'social contract' between companies and the societies in which they operate. It is argued that environmental reporting or green accounting disclosure from the viewpoint of legitimacy theory is the realisation that the the society or community is important for the existence, growth and image of companies

[4]. To attain such support, businesses have to freely release certain kinds of information to convince the society that their activities are sincere, appropriate and supportive [6]. [11] also argue that the legitimacy theory relies on the theory of social contract which focuses on how businesses depend on their environment, the varying expectation of the community and how a company attempts to justify its presence in the community by legitimizing its operations. It is also observed that the inclination to disclose environmental or social related information is linked to the general attention of society on the reporting companies. Through environmental accounting, firms are viewed as legitimate and thus invites investors to the business, which lead to an increase in the market value of shares.

2.3 Stakeholder Theory

Goswami [1] asserts that, the stakeholder theory indicates that the contentment of different stakeholders of an organisation leads to positive relationships between environmental reporting or social responsibility reporting (SRR) and financial performance. This theory arises from the fact that, the existence of a firm is not only for the interest of its owners, but also serve the interests of other stakeholders, such as the community, civil societies, employees and the government. [12] built the theoretical agenda of stakeholder capitalism which emphasises on deliberate cooperation of citizens in order to create sustainable relationships that offers the chance for leadership and competitiveness. [12] maintained that stakeholder oriented companies which are concerned about the wellbeing of employees, customers and suppliers, tend to profit from less competition and brand loyalty which allows them to charge higher prices and reduce the likelihood of insolvency from financial distress. Actually, a cursory look at the stock prices of stakeholder friendly organisations indicates that, good relations with primary stakeholders such as customers, employees, suppliers, and communities seems to develop intangible value additions which in turn increases market returns [6]. Besides all these, from the viewpoint of stakeholder theory, environmental accounting recognises the importance of giving more than just financial information to the stakeholders of a firm, as affirmed by [13].

2.4 The Equity Theory

The rate at which the natural resources are used by the global population is one and a half (1.5) times greater than the rate of renewal [10]. If serious consequences are to be averted, economic development must be isolated from environmental degradation. Although much cannot be done with resources that cannot be renewed, however, steps needs to be taken to preserve renewable resources for the existence of human beings. In simple terms, renewable resources must be used for sustainable development [14]. It has been recognised that the world cannot provide fixed resources for the sustained existence of humankind ([3]. [5] also observed that, some of these fixed resources are depletable, finite and unrenewable, and thus cannot be replaced once they are used up. Other resources (such as soil, water, air, wood, and sunlight) are renewable and has the property of being replaceable as they get used. It is thus necessary that companies report on how they utilize these resources in such a way that they will not disadvantage unborn generations. This is what the equity theory advances.

2.5 Signaling Theory

Signalling theory explains why companies have the motivation to disclose voluntary information to the capital market [15]. According to the authors, these voluntary disclosures are important in order for businesses to successfully compete in the capital market. [7] also reported that the value of a company can be increased if the company willingly reports credible private information about itself and this eliminates outside uncertainty. According to [14], managers of a firm would expect that shareholders would appreciate the signals conveyed by the company with voluntary disclosures, such that, the public response to such voluntary disclosures would be reflected in the stock price of the company and thus benefit the shareholders and the managers through share appreciation.

Omran and Ramdhony [15] further noted that due to the problem of information asymmetry, firms signal certain corporate social responsibility information to investors to indicate that they are better than their peers in the market, with the aim of appealing to investors and improving a favourable reputation. [4] also observed that environmental accounting is one of the signalling means, where organisations would disclose more social responsibility information than the mandatory ones which are demanded by regulations and laws, so as to signal that they are better. The author further argued that the implementation, monitoring and disclosure of carbon or environmental policies and their disclosure in the annual reports significantly contribute to the creation of environmental reputation. [14] suggests that the quality of environmental reporting rather than just quantity has a stronger effect on the creation of environmental reputation amongst executives, investors and other stakeholders.

2.6 The Concept of Environmental Accounting and Reporting

The term environmental accounting or reporting is perhaps one of the few concepts that has many alternate names. Various authors have used different names to describe the concept of environmental accounting. The alternate names include: green reporting/accounting ([1,6]); carbon accounting/reporting ([4,9]); social responsibility reporting ([3,6,11]); and sustainability reporting ([8,13]). For instance, [11] contended that environmental and green disclosures form part of what is normally branded, social responsibility disclosures. According to the authors, environmental reporting is the means by which companies disclose information on their environmental and societal activities to the users. [6] also defined corporate environmental reporting as the process by which companies and organisations communicate information regarding the range of its environmental activities to a variety of stakeholders including employees, local communities, shareholders, customers, government and environmental groups.

Similarly, [15] and [16] explain that environmental accounting and reportingis an accounting discipline that deals with the consideration, and ultimately the inclusion into the customary accounting procedures, general and specific issues related to environmental and social impacts, regulations and restrictions. In the view of [6], safe, environmentally sound, and economically viable energy production and supply policies should be essential part of any accounting and management issues. Furthermore, [9] defines, environmental accounting as the development of a measurement system to monitor and report, with non-monetary units, the internal or external business activities impacton society and the environment to stakeholders. The author further explains that environmental and social accounting is also concerned with the organization's performance and involvement in social and environmental activities. Likewise, [8] argue that the intention of environmental or social accounting is to provide a chance for stakeholders to understand the ways or attitudes of the organization's work vis-à-vis sustainability. In like manner, many organisations provide environmental information in their annual reports to earn a reputation and to fulfil their corporate social responsibility.

2.7 Empirical Review

Many studies have been conducted to examine the environmental accounting practices of businesses around the world. One of the earlier studies on environmentally and social responsibility disclosures was conducted by [17] in Australia. Studying the corporate environmental and social disclosures of one hundred (100) leading companies in Australia from 1967 to 1977, the author established that disclosures increased across time. [17] explained that, the rise in disclosures was a strategy to improve public image and also to obtain public acknowledgement and acceptance. Similar to that of [17] study, [18] reviewed the social and environmental responsibility disclosures made by 207 companies in the 1978 financial year. Explicitly, the authors tried toexaminethe quantity of disclosures and the number of factors that had accounted for such disclosures from an appraisal of the existing literature on green and social responsibility disclosures. These factors identified included social constraints, magnitude, systematic risk and the management decision horizon. The study found out that, companies made minimal disclosure of social and environmental information.

Deegan and Ranking [11] observed that businesses seem hesitant to provide any information within their annual reports about any adverse environmental and social consequences of their operations. This, they observed, was prevalent among both prosecuted firms and firms that had never been prosecuted alike. The authors found out further that, the companies that had been prosecuted before, provided substantially more positive environmental and social disclosures than their colleagues that had not been prosecuted before. This finding is in consonance with the opinion that companies that have been indicted consider that there is a necessity to counter bad and adverse information of their prosecution with more positive and favourable news relating to their environmental activities. These findings appear to suggest that firms have the belief that there is the need to legitimise the existence of their activities in the form of enhanced disclosure of good or positive environmental and social news.

Goswami [1] also examined the environmental and social accounting practices among companies in Indian. The author discovered that, a greater number of the Indian companies surveyed, reported environmental activity in their annual reports. Nonetheless, the author reported that, such disclosures were simple and basic. Similarly, (9) also analysed the environmental and social reporting practices among privately owned businesses in India. It was discovered that the approach of the private companies in India towards corporate social and environmental reporting was in a confounded state where, the businesses demonstrated their responsiveness towards the disclosure of different environmental information, however the level of seriousness that was commited to such exercises was not uniform.

[19] also examined the annual reports of ten (10) companies listed on the Johannesburg Stock Exchange (JSE) in South Africa. The objective of the research was to examine the effect of the introduction of integrated reporting on environmental, social and ethical reporting. The study found out that, there was a considerable increase in the amount of environmental, social, and ethical information reported in the annual reports of the sample companies with the introduction of integrated reporting. Quite recently, [13] conducted a study in South Africa to determine whether the implementation of integrated reporting by large private sector companies had occasioned an increase in the quality of environmental and social information disclosed. The author discovered that, the environmental and social reporting process was still in the budding phase, with many firms developing methodologies to measure their various impacts. It was further observed that, while many firms were claiming to be creating environmental and social reports, the level of integration was still very low.

Again, in Mauritania, [5] examined environmental and social information disclosures by commercial banks. The study revealed that banks with higher visibility disclosed more environmental and social information which finding endorses the legitimacy theory as an explanation for environmental and social information disclosure by Mauritian banks. The study further revealed that environmental and social disclosures were prevalent among all banks, however only forty percent (40%) of the banks extensively disclosed environmental and social information relating to one category, thus showing a narrow view of environmental and social information disclosure. Human resource information, was the primary area of disclosure which was at odds with previous studies.

3. METHODOLOGY

3.1 Research Design and Sample Data

The study analyses the content of annual reports produced by Ghanaian listed manufacturing companies. The main objective was to explore the environmental accounting practices and disclosures within the annual reports produced by Ghanaian listed manufacturing companies so as to evaluate the extent of any advancement in the quality and quantity of reporting in this area. This study utilises the survey design. Survey is used because it is mostly employed to assess practices, thoughts, opinions, and feelings. Similarly, surveys are an excellent way to assemble many information from wide variety of individuals. Relatively, this makes surveys less costly.

The research strategy adopted was triangulation (both qualitative and quantitave approach). The mixed method may yield more reliable findings than evaluations based on either the qualitative or quantitative methodologies. The population for the study comprised all the fourteen (14) listed manufacturing firms on the GSE. Websites of all the 14 companies and www.annualreports.com were visited to download annual reports from 2009 to 2015. Most previous studies on environmental reporting have relied on the annual reports of companies as a single source of data collection to investigate the environmental reporting practices of companies ([5,6,9,11]). This is due to the fact that the annual report is a standardized corporate document that mirrors the actual financial and non-financial information of a corporation and is the primary source of information for stakeholders [1]. [5] and [6] assert that the annual report is the corporate document widely and extensively distributed to the public and is easily accessible to researchers. In this study, every annual report was scrutinised and examined individually from cover to cover for environmental information. A total of 14 firms and 154 annual reports were targetted for examination. Due to the unaccessibility of annual reports of four companies from 2009 to 2015, eleven (11) listed manufacturing companies were selected from the target population. The unavailable annual reports meant that a panel dataset of sixty nine (69) firm year observations were used.

3.2 Data Collection

The study assumed an interpretative approach to analyse the content of the annual reports of the selected companies. Content analysis of the annual reports has been acknowledged as the most suitable method of evaluating environmental and social accounting practices of companies [6]. [5] explain that content analysis is a research technique for making replicable and valid inferences from data according to their context. Following [6] and [13], the study employed an evaluation matrix. The environmental accounting practices were analysed based on a Likert Scale. The differences between the various levels of the Likert Scale was based on the quality and perceived usefulness of the information reported by the entities. The Likert Scale were interpreted as follows:

Scale 1: Very weak or no disclosure or the topic is not mentioned in the report.
Scale 2: Weak or disclosure to a lesser extent or the topic is briefly mentioned.
Scale 3: Average or disclosure to some extent.
Scale 4: Strongor disclosure to a large extent.
Scale 5: Very strong, significant disclosure or full disclosure is made.

To safeguard the reliability of the data, the study depended on various and renowned studies of financial and environmental reporting. Comparisons of the several methodologies and conclusions made by numerous studies were carefully scrutinised. The evaluation matrix developed for collecting data was carefully designed in line with the various literature reviewed. In order to enhance the degree of validity, several sources of evidence were essential. Since the study relied mostly on annual reports of the companies, the degree of bias and unreliable data was minimized.

The reports were coded by eight (8) individuals. All the eight coders had postgraduate degree in accounting and had worked in the accounting profession for a minimum of five years. The authors coded six (6) annual reports each, whereas four other coders each coded ten (10) annual reports. The remaining coder handled eleven (11) annual reports. Several measures were taken to guarantee inter-coder reliability. At the beginning, the coders studied and discussed some existing studies in order to have a better understanding of the subject. Second, the authors gave a comprehensive guideline to each coder. At start, the authors, together with the other coders coded three complex and complicated annual reports based on the guideline. The results were subsequently compared and analysed. Based on the outcome of the discussion, the guideline was then accordingly revised. During the process of coding, the coders regularly checked on one another’s work to ensure that each coder understood the exercise. Where there were ambiguities, the coders discussed with the authors, who sought to ensure that all the coders used the same coding rules. Lastly, the authors re-coded two annual reports selected randomly from the work of each coder in order to further verify compliance and uniformity with the prescribed guidelines.

4. RESULTS AND DISCUSSION

4.1 Social Sustainability Disclosures by Manufacturing Companies

This section presents and analyses the data on social sustainability disclosures by manufacturing companies listed on the Ghana Stock Exchange. The results of the mean marks calculated on the social sustainability disclosures by manufacturing companies listed on the Ghana Stock Exchange is presented in Table 1.

On the issue of social sustainability disclosures by the manufacturing companies listed on the Ghana Stock Exchange, Table 1 shows that these companies performed better compared with the environmental information disclosures (see Table 2). Regarding the extent of social disclosures, the manufacturing companies listed on the Ghana Stock Exchange observed a marginal increase in the quantity and quality of disclosures through the years. The firms made very weak disclosures in their annual reports regarding the turnover and pension data of employees. As can be observed from Table 1, the companies did not increase the quantity and quality of information regarding these two categories of social sustainability information from 2009 through to 2015, scoring weak level of disclosures in each of the years. However, disclosures on employee data or the profile of employees, data on equal opportunities for workforce, information on empowerment of local people, information on the number of employees for previous years and current year, accounting for the social impacts of suppliers, disclosure of operation with negative impact and information on local economic development including infrastructure investment fairly improved from 2009 through to 2015. For instance, from an average (mean = 3.04) position in 2009, information on the number of employees for previous years and current year increased to a very strong (mean = 4.43) disclosure position in 2015.

Similarly, disclosures on the profile of employees increased from a weak position (mean = 2.00) in 2009 to a strong (mean = 3.80) position in 2015 while information on local economic development including infrastructure investments also increased from an average (mean = 3.14) position in 2009 to a strong (mean = 3.54) position in 2015. Particularly, there were enough images and pictorial display on information relating to the local economic development including infrastructure investments by these companies. As manufacturing companies, it was expected that there would be a strong information disclosure on the occupational health and safety, training for employees and the number and rate of employee turnover. Interestingly, the manufacturing companies did not have enough information on them. On the issue of information on non-compliance, fines or prosecution (eg, anti-competitive practice), few companies provided snippets of information on them.

Again, Table 1 shows that the companies increased their level of disclosures on charity and political donations, product and consumer safety and support for health. For instance, in 2009, the level of disclosure for charity and political donations was average (mean = 2.65). However, the level of disclosure on charity and political donations observed a substantial increment across the years, with a strong disclosure in 2015. Same can be said for product and consumer safety (weak disclosure in 2009 to strong disclosure in 2015) and support for health (weak disclosure in 2009 to strong disclosure in 2015). The level of disclosures on: employment of disabled; sponsorship for sports and recreational projects; support for education and support for arts and culture increased marginally from 2009 to 2015. Each of these category of disclosures increased from a very weak disclosure to a weak disclosure from 2009 to 2015, suggesting that the level of disclosure might not be a priority to these companies. Better still, it can be that the companies did not engage in such activities much and therefore, there were nothing to report on by the firms.

It is also a new phenomenon that the awards and recognitions received by companies are conspicuously displayed to show to the general public the companies' performance relative to their competitors. However, apart from Fan Milk Ghana Limited, none of the manufacturing companies listed on the Ghana Stock Exchange disclosed any award(s) won by them. There is one reason that can be advanced for this: there was possibly nothing to report on. Since 2010, Fan milk Ghana Limited has been the sole winner of the Best Industrial Company in Ghana in the Annual Association of Ghana Industry (AGI) awards. Fan milk Ghana has also outperformed the other manufacturing companies listed on GSE in the annual Ghana Club 100 awards organised by the Ghana Investment Promotion Centre. Thus, it was not surprising that the other companies did not report on their awards won since they possibly had none.

The same reporting trend was observed for the information on national service or internship. Fan Milk Ltd was also the only manufacturing company listed on the Ghana Stock Exchange that provided information on their national service or internship programmes. For instance, it was stated in the Fan Milk Ltd Annual Reports and Accounts (2012:10) that:

> *"Your Company has over the past many years consistently assisted graduates as well as regular students from various tertiary institutions in the Country to acquire practical working experience. Fan Milk Limited annually offers placement toover 20 national service men and women and also allows about 15 students to undertake their practical attachment with the Company".*

This information copiously featured throughout all the annual reports of Fan Milk limited over the years. Again, the disclosures on human and labour practices were seldom contextualised. Likewise, lost time as a result of injuries and accidents were, to a limited extent, disclosed, but a small number of the companies that made these disclosures seldom disclosed the causes and corrective actions taken in circumstances where performance had declined. Supply chain and sourcing remains an area that demands a substantial consideration. The number of companies that made disclosures on the social impacts of suppliers increased marginally from 2009 through to 2015.

4.2 Environmental Sustainability Disclosures by Manufacturing Companies

This section presents some predominant matters that relate to the disclosure of environmental information in the annual reports of manufacturing companies listed on Ghana Stock Exchange (GSE). It identifies the types and extent of green or environmental information that are disclosed by manufacturing companies listed on Ghana Stock Exchange (GSE) from 2009 to 2015. Table 2 presents the environmental sustainability information disclosed by the firms.

As can be ascertained from Table 2, the environmental sustainability issues received little reporting attention by manufacturing companies listed on the GSE. In the years 2009 and 2011, the annual report failed to provide information on environmental sustainability, as majority of the environmental information required to be disclosed obtained a mean rating of less than 2.00 (weak disclosure). However, there was a slight improvement in the subsequent years regarding the environmental information disclosed in the annual reports of the manufacturing companies listed on GSE. As evidenced from Table 2, apart from the fact that none of the companies had audit or assurance report on their environmental information disclosures and environmental protection expenditures and investments, there was a slight improvement on the quality and quantity of other environmental information disclosed for the other categories of disclosures. Specifically, disclosure of primary source of energy, information on the environmental impacts, waste and pollution from operations, toxic release, environmental investments and expenditures, air and smoke emissions, water use efficiency and waste generation and recycling observed slight improvements.

Table 1. Disclosure of social responsibility information of manufacturing companies

Categories of information	2009	2010	2011	2012	2013	2014	2015
Employee data	2.00	2.83	2.83	3.00	2.83	3.60	3.80
Employee turnover	1.00	1.00	1.00	1.17	1.15	1.28	1.67
Pension Data	1.00	1.00	1.00	1.05	1.07	1.10	1.14
Health and safety information	2.14	2.17	2.30	2.33	2.33	2..75	2.92
Employment of disabled	1.06	1.24	1.28	1.35	1.64	1.72	2.24
Equal opportunities for the workforce	2.42	2.48	2.43	2.52	2.54	2.68	2.79
Employee Training	2.04	2.15	2.18	2.25	2.31	2.38	2.62
Charity and political donations	2.65	2.98	3.18	3.62	3.67	3.82	4.05
Information on empowerment of local people	1.34	1.45	1.53	1.64	1.75	2.34	2.65
Number of employees for previous and current year	3.04	3.55	3.67	3.81	3.97	4.12	4.43
Disclosures on national service/internship	1.38	1.36	1.41	1.43	1.45	1.43	1.48
Accounting for social impacts of suppliers	1.03	1.18	1.22	1.24	1.27	1.40	1.45
Product and consumer safety	1.69	1.98	2.39	2.84	2.98	3.15	3.34
Disclosures on awards received	1.00	2.01	2.11	2.24	2.34	2.22	2.31
Incidents of corruption	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Local economic development e.g infrastructure	3.14	3.16	3.25	3.27	3.31	3.42	3.54
Information on non-compliance, fines or prosecutions	1.00	1.00	1.10	1.13	1.11	1.14	1.21
Information on operation with negative impact	1.21	1.34	1.62	1.81	2.01	2.14	2.33
Sponsoring sporting or recreational projects	1.21	1.30	1.32	1.24	1.34	1.37	1.43
Support for education	2.14	2.26	2.24	2.32	2.35	2.68	2.86
Support for public health	2.21	2.34	2.31	2.41	2.65	2.91	3.04
Support for the arts and culture	1.00	1.13	1.32	1.35	1.65	1.54	1.64

Source: Researcher's Own Work, 2016

Key: 1 = Very weak or no disclosure; 2 = Weak or disclosure to a lesser extent; 3 = Average or disclosure to some extent; 4 = Strongor disclosure to a large extent; 5 = Very strongor significant disclosure

With regards to health and safety, the annual report of Fan Milk Limited (2015:10) states:

> *The company continuously assesses the safety, health and environmental impact of its operations on both employees and the general public. Members of staff are regularly screened in conformity with the food vendors' health regulation … During the course of 2015, your company enhanced safety at the workplace by instituting clear routes for pedestrians throughout the compound. Within the factory, designated routes for both personnel and various lifting equipment were clearly marked.*

PZ Cussons made similar disclosure in its Annual Report (2014:5) by stating that: *"PZ Cussons Ghana Limited continues to ensure that business activities are undertaken in a responsible manner and in accordance with relevant statutory legislation and that employees at all levels participate in the development of, promotion and maintenance of health and safety working environment".*

Table 2 further shows that the quality and quantity of environmental information disclosed by manufacturing companies in their annual reports increased through the years to 2015. As observed above, the category of information that witnessed a significant improvement from 2009 to 2015 were disclosure information on sources of raw materials and other inputs and information on initiatives to moderate environmental impacts of products and services. Similarly, the manufacturing companies observed little improvement regarding information on initiatives to use energy-efficient and renewable energy, accounting for waste and pollution from operations, disclosure of secondary and other energy sources, health and safety disclosures, information on significant fines and total number of non-monetary sanctions for non-compliance.

It was observed that only Fan Milk Ghana Limited, Ayrton Drugs, PZ Cussons, Unilever, Guinness Breweries Limited and Benso Oil Palm Plantation were the manufacturing companies that provided enough environmental information in their annual reports. Conversely, majority of the other manufacturing companies provided least or minimal quantity of information in their annual reports. This might be a reflection of the fact that, a lot of the manufacturing companies find it difficult to contextualise their environmental impacts. This is however surprising judging from the fact that the activities of the manufacturing companies are noted to be associated with negative environmental impact due to the waste they discharge, smoke they emit, the noise associated with their operations etc. It was thus expected that the environmental impact of their activities would be extensively reported for the sake of accountability.

Table 2. Disclosure of environmental sustainability of manufacturing companies

Categories of information	2009	2010	2011	2012	2013	2014	2015
Waste and pollution from operations	1.55	1.82	1.95	2.13	2.27	2.40	2.65
Primary source of energy	1.25	1.33	1.39	2.43	2.54	2.62	2.78
Identification of Environmental impacts	1.34	1.81	1.83	1.83	2.01	2.40	2.40
Toxic release	1.12	1.17	1.20	1.17	1.23	2.30	2.62
Reduction of renewable/non-renewable resources	1.00	1.00	1.00	1.00	1.17	1.12	1.24
Environmental audit or assurance	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Environmental expenditures and investments	2.39	2.67	2.77	2.81	2.84	2.83	2.94
Disclosure of secondary and other energy sources	1.06	1.11	1.14	1.22	1.25	1.35	1.50
Air or smoke emissions	1.34	1.42	1.45	1.63	1.61	1.68	1.72
Sources of raw materials and other inputs	1.17	1.25	1.34	1.36	1.44	1.47	1.63
Initiatives to provide renewable energy	1.00	1.00	1.00	1.06	1.05	1.12	1.31
Control of environmental impacts of products	1.00	1.00	1.33	1.28	1.36	1.41	1.52
Waste generation and recycling	2.32	2.24	2.31	2.36	2.46	2.65	2.71
Environmental compliance performance	1.00	1.00	1.00	1.36	1.46	1.48	1.62
Water use efficiency	1.24	1.51	1.43	1.47	1.46	1.71	1.84

Source: Researcher's Own Work, 2016

Key: 1 = Very weak or no disclosure; 2 = Weak or disclosure to a lesser extent; 3 = Average or disclosure to some extent; 4 = Strongor disclosure to a large extent; 5 = Very strongor significant disclosure

5. CONCLUSION

The following are the conclusions drawn from the findings of the study.

Analysing the evolution of environmental accounting over seven (7) years, the study observed a marginal increasing trend in the level of social information disclosed among listed manufacturing companies in Ghana, suggesting that the quality and quantity of social information reported by Ghanaian companies listed on GSE are increasing over time. However, the level of disclosures on the environmental activities of the listed manufacturing companies was weak. One would have expected that since manufacturing activities are noted to have negative environmental impacts, these companies would have disclosed more information on their environmental activities.

With regards to social sustainability information disclosures, there were several categories of information that the companies generally reported on, especially information on the data of employees, information of number of employees for previous years and current year, information on empowerment of local people, disclosure of operation with negative impacts and information on local economic development including infrastructure investments. Surprisingly, some important categories such as the occupational health and safety information, description of human and labour practices, information on national service and internship programmes and information on incidents of corruption were not adequately disclosed.

Specifically, disclosure on secondary and other energy sources, initiatives to use energy-efficient and renewable energy, significant fines and total number of non-monetary sanctions for non-compliance, and information on audit report on environmental and social activities received a weak level of disclosures in the annual reports. On the other side, the categories of environmental information that were disclosed regularly in the annual reports were information on the identification of environmental impacts, accounting for waste and pollution from operations, disclosure of primary source of energy, sources of raw materials and other inputs disclosed and information on waste discharge and recycling. Nonetheless, the environmental information in the annual reports were generally minimal.

6. RECOMMENDATIONS

It is recommended that the annual reports should contain an assurance report on the environmental and social information because lack of it can create a doubt among users about the genuineness and truthfulness of the information provided.

It appears that environmental reporting is not a priority to majority of the manufacturing companies listed on the Ghana Stock Exchange. This may be as a result of the fact that it is mainly voluntary. Again, there is no standardized way of accounting for the environment. It is thus recommended that the Ghana Stock Exchange consider developing guidelines or a standardized format which the companies can follow to prepare their annual reports especially guidelines on environmental reporting. The GSE may take cues from the GRI and 'G4'.

Environmental accounting is gaining attention. This study has revealed that some companies have integrated environmental accounting fully into their accounting system while others have not. It is however not clear if there is any real benefit linked to environmental accounting and reporting. It is thus recommended that further study should be conducted to ascertain the value relevance of environmental accounting.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Goswami M. Corporate environmental accounting: The issue, its practices and challenges: A study on Indian corporate accounting practices. Journal of Business and Management. 2014;16(5):36-42.
2. Kaplan R, Norton D. Strategic learning & the balanced scorecard, Strategy & Leadership. Harvard Business Review. 1996;l(4):75–85
3. Wild S, Van Staden C. Integrated reporting: Initial analysis of early reporters: An institutional theory approach. In 7th Asia Pacific Interdisciplinary Accounting Research Conference, Kobe. 2013;26-28.
4. Wong R. Corporate social and environmental reporting: A user perspective. A thesis submitted for the

degree of Doctor of Philosophy University of Bath School of Management; 2011.
5. Ramdhony D. Corporate social reporting by Mauritian Banks. International Journal of Accounting and Financial Reporting. 2015;5(2):56-73.
6. Maama Green H. Social reporting practices among Ghanaian listed firms. An MPhil Dissertation presented to the Business School of Kwame Nkrumah University of Science and Technology; 2016
7. Modell S. The societal relevance of management accounting: An introduction to the special issue. Accounting and Business Research. 2014;44(2):83-103.
8. Horvat R, Korošec B. The role of accounting in a society: Only a techn (olog) ical solution for the problem of economic measurement or also a tool of social ideology? Our economy. 2015;61(4):32-40.
9. Ghosh S. Communication of corporate social responsibility activities by private sector companies in India: Research findings and insights. Metamorphosis. 2015;14(2):1–21.
10. Van Dijk A, Mount R, Gibbons P, Vardon M, Canadell P. Environmental reporting and accounting in Australia: Progress, prospects and research priorities. Science of the Total Environment. 2014;473:338–349.
11. Deegan C, Ranking M. Do Australian companies report environmental news objectively? Accounting, Auditing & Accountability Journal. 1996;9(2):50-67.
12. Freeman, R.E., 2001. A stakeholder theory of the modern corporation. Perspectives in Business Ethics Sie. 2001;3:144.
13. Van Zyl AS. Sustainability and integrated reporting in the South African corporate sector. International Business & Economics Research Journal. 2013;12(8): 103-126.
14. Sayekti Y. Strategic corporate social responsibility (CSR), company financial performance, and earnings response coefficient: empirical evidence on indonesian listed companies. 2nd Global Conferment on Business and social Sciences – 2015, from 17th to 18th September, 2015. Bali, Indonesia; 2015.
15. Omran MA, Ramdhony D. Theoretical perspective on corporate social responsibility disclosure. A critical review. International Journal of Accounting and Financial Reporting. 2015;5(2):38-55.
16. Ullmann AA. The corporate environmental accounting system: A management tool for fighting environmental degradation. Accounting, Organizations and Society. 1976;1(1):71-79.
17. Trotman KT, Bradley GW. Associations between social responsibility disclosure and characteristics of companies. Accounting, Organizations and Society. 1981;6(4):355-362.
18. Trotman KT, Bradley GW. Associations between social responsibility disclosure and characteristics of companies, Accounting, Organizations and Society. 1981;6(4):355-362.
19. The Association of Chartered Certified Accountants [ACCA]. Integrated reporting: the influence of King III on social, ethical and environmental reporting. ACCA, London; 2012.

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