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Article

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International Journal of Energy Economics and Policy

Provided in Cooperation with:
International Journal of Energy Economics and Policy (IJEEP)

Reference: Raquiba, Hasinat/Zuaini Ishak (2020). Sustainability reporting practices in the energy sector of Bangladesh. In: International Journal of Energy Economics and Policy 10 (1), S. 508 - 516. https://www.econjournals.com/index.php/ijeep/article/download/8621/4818. doi:10.32479/ijeep.8621.

This Version is available at:
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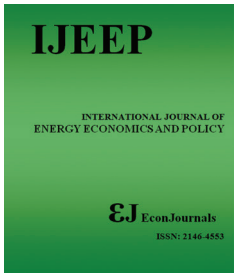

International Journal of Energy Economics and Policy

ISSN: 2146-4553

available at http: www.econjournals.com

International Journal of Energy Economics and Policy, 2020, 10(1), 508-516.

Sustainability Reporting Practices in the Energy Sector of Bangladesh

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Received: 23 August 2019 **Accepted:** 08 October 2019 **DOI:** https://doi.org/10.32479/ijeep.8621

ABSTRACT

Energy is a key component of production. In order to promote economic growth in a country, adequate supply of energy is pivotal. On the other hand, this sector is considered sensitive in terms of environmental and social sustainability. This article aims to depict the extent of sustainability-related reporting practices in 19 companies operating in the energy sector of Bangladesh through analyzing data from 2011 to 2017 from their annual reports. Besides, a few factors affecting the level of such disclosure have been considered using regression model. Legitimacy theory has been discussed as underpinning theory and some other previous studies have been consulted. Findings show that the level of sustainability related reporting practices in the sector is dismal, though positively influenced by ownership structure, media visibility, and characteristics of directors of the company. Policy implications are discussed.

Keywords: Sustainability Reporting, Energy, GRI
JEL Classifications: G34, M48

1. INTRODUCTİON

Bangladesh, a small country in south Asia, is persuing an aim to be a middle-income country by 2021. This has resulted in an escalating energy need over the last decade, which will surge further in the coming days. If the government wants to maintain this growth momentum, it needs to ensure uninterrupted and quality power supply in all sectors; since, energy is vital for economic growth in any country and a key ingredient in improving the overall socioeconomic conditions (i.e., alleviating poverty) in poorer ones (Desfiandi et al., 2019).

The energy sector of Bangladesh comprises of electricity, natural gas, coal, petroleum oils, and some renewable sources. Of these, electricity is the most prominent one. However, since after the independence of the country, it has struggled to generate adequate electricity to meet demand. One of the reasons is that, the energy sector has failed to attract adequate private investments due to poor pricing policies and other bottlenecks. This lack of investment is a major contributing factor to Bangladesh's energy crisis. In spite of the situation, government of the country has vowed to provide access to affordable and reliable electricity for all citizens by 2021 (Bangladesh Planning Commission, 2013). Currently, electricity facility has reached to roughly half of the country's people, though mostly the facility's reliability and quality is very dismal. The government has taken up different policies to overcome present situation. As such, a key policy reform for the government is to ensure proper pricing of electricity and power based on international best practices. Besides, in recent years, government has privatized the electricity-generating companies; and in some cases has bestowed some of the production responsibility on privately and/or publicly held companies.

The companies operating in the energy sector of Bangladesh at large have been traditionally marred with corruption and mismanagement all through these 47 years since the country's

independence. Whether the company be state-operated electricity, water, or natural gas supplying entity or be it publicly owned, the companies have been an eternal source of ill-gotten resources for the top-management and relevant government officials besides being a constant reason for damaging and wasting natural resources found in the country.

As a part of ongoing development plans, government of Bangladesh has proposed a new coal-fired power plant in the vicinity of the Sundarbans, a UNESCO world heritage site and the largest remaining mangrove forest in the world which bounders the south-west part of the country. Environment and ecology experts opine that, this project will cause massive destruction to the forest, rivers, and overall ecological imbalance of the area. UNESCO World Heritage Committee has also expressed grave concern regarding the project. The government is positive to carry on with this power plant in spite of strong opposition from local and international civil society and environmental groups. This current situation has acted as a motivating factor for conducting this research: to find out the extent and contributing factors of sustainability related reporting practices by the existing companies in the energy sector of Bangladesh. Findings from this study are expected to help in contributing shed light on the prevailing condition and in formulating future rules and regulations in this sector.

Keeping these experiences and evidences in mind, this article is done to fulfill the following objectives:

a. Determine the extent of sustainability related reporting practices in the energy sector companies in Bangladesh;
b. Ascertain how the corporate governance elements- media visibility, ownership structure, corporate posture, and characteristics of board of directors influence the level of sustainability reporting by these companies.

Rest of the article is organized as under- the following sections discuss relevant literature as well as hypotheses development. Section 4 describes the research methodology undertaken to fulfill the objectives of this study. In section 5, results and findings of analyzed data are presented and finally, section 6 concludes the article.

2. LİTERATURE REVİEW

The following sections highlight theoretical background and refer to some empirical studies conducted by researchers all over the world.

2.1. Underpinning Theory

Of the most widely used theories in explaining company's voluntary sustainability reporting behavior, the legitimacy theory is the prominent one. Of the researchers whose works relating to this theory are most cited are Brummer (1991), Deegan and Rankin (1996), Guthrie and Parker (1989), and O'Donovan (2002). Legitimacy theory considers organizations are always trying to seek assurance that they are operating within the bounds and norms of their respective societies (Deegan, 2004: Freeman, et al., 2007). Similarly, O'Donovan (2002) described that organizations must act in a manner that society deems socially acceptable for a continuous and successful operation. Brummer (1991) defined legitimacy as an assumption or generalized perception that the responses of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definition. Hence, legitimacy theory views that the companies are bound by a social contract for a socially desired action for an approval of their existence, rewards, and goals from their activities (Guthrie and Parker, 1989).

2.2. Empirical Studies

If there is a relationship between level of energy consumed and economic growth of a country is a matter of debate among many researchers. On one hand, researchers like Debnath and Mourshed (2018), Phan et al. (2019), and Zheng and Walsh (2019) opine that exogenous factors like regime change, institutional development or energy policy taken by an authority determines the relation between the nature of economic growth and extent of energy use in the economy.

On the other hand, Newman and Kenworthy (1989) and others suggest that level of energy consumed is not directly related to overall economic growth of the country. Rather urbanization, change of people's taste and need, etc. determines how much energy is consumed in the economy.

This brings the issue of responsible use of energy resources, by individuals and by industries alike. Besides, a major chunk of that responsibility falls on the energy supplying or producing companies. Whether they are using the natural resources with care, utilizing those properly and in a sustainable manner, moreover, if their activities are dutiful towards the environment and society are the focus of this study.

Chang et al. (2017), Dienes et al. (2016), Fifka (2012), and Hahn and Kuhnen (2013) observed that, the span of sustainability related reporting being covered by the organizations has gone through several changes over the years. Social reports used to accompany the traditional financial reports in the 1970s (Cormier and Gordon, 2001). In 1980s, the environmental reports also joined the social reports (Clarkson et al., 2008; Cormier and Magnan, 2005). From the 1990s, more comprehensive form of sustainability reporting started to gain attention.

Though all these separate reports- financial reports, social reports, environmental reports, etc. each focus upon a single element of sustainability or in other words EGSEE (economic, governance, social, ethical, and environmental) reporting, aggregation of all the separate reports possess the risk of misinterpreting the outcome (Dienes et al., 2016). To avoid risking such misinterpretation this literature review will discuss the empirical researches solely on sustainability reporting, not on any of the standalone elements of sustainability related issues.

Based upon focus on different aspects relating to sustainability reporting, related literature can be categorized into different groups. The researches relating to identification of variables which motivate a company to adopt sustainability reporting practices mainly describe the factors or situations which prompt the companies to do so. Those empirical evidences generally divide

the contributing factors of sustainability reporting into two clear categories- internal factors and external factors.

Of the commonly discussed internal drivers of sustainability reporting, there are company sizes, financial, social, and/or environmental performance, and ownership structure of the company. Company sizes are commonly proxied by total assets, company turnover, amount of annual sales, number of employees, and market capitalization (Dissanayake et al., 2019; Dienes et al., 2016; Fuadah et al., 2019; Khan and Hassan, 2019; Mudiyanselage, 2018; Orazalin and Mahmood, 2018). Larger companies face greater stakeholder assessment because of being more visible to the public than smaller companies. As a result, anything larger companies do also have more impact on the industry (Dissanayake et al., 2019; Dienes et al., 2016; Fuadah et al., 2019; Khan and Hassan, 2019; Mudiyanselage, 2018). Moreover, from disclosing sustainability related information bigger companies are benefitted more than the cost they have to incur. Whereas, in case of smaller companies, the cost of such reporting often becomes greater than the benefit they avail from such reporting (Bogomolova et al., 2018; Desfiandi et al., 2019; Dissanayake et al., 2019; Dienes et al., 2016; Fuadah et al., 2019; Haddock, 2005; Ho and Taylor, 2007; Khan and Hassan, 2019; Mudiyanselage, 2018; Orazalin and Mahmood (2018)).

Another variable closely relating to company size is the company's financial performance. This variable is mostly measured by market returns, return on assets (ROA), or return on equity (ROE), market-to-book value (or Tobin's q), intensity of capital, financing activities of the company in the capital market, and higher systematic risk (beta or stock price volatility). The more profitable the company is, the more its capability to bear the costs incurred for sustainability reporting and adjust with any potential negative information disclosed through such reporting (Cormier and Magnan, 2005; Dienes et al., 2016; Dissanayake et al., 2019; Fuadah et al., 2019; Hahn and Kühnen, 2013; Haniffa and Cooke, 2005; Khan and Hassan, 2019; Mudiyanselage, 2018; Orazalin and Mahmood, 2018). However, the empirical evidences provide mixed results in this aspect. For example, Haniffa and Cooke (2005) opine that companies feel motivated to disclose sustainability reporting because it gives the company more social legitimacy. On the other hand, Cormier and Magnan (2005) contradict this view stating that higher level of leverage can deter the company to disclose more sustainability related information in fear of disclosing any negative information.

Social and/or environmental performances of a company are generally measured by the number of fines the company had been punished with for transgressing environment, actual pollution discharge data, scores the company achieved in certain sustainability indices (e.g., Dow Jones Sustainability Index), or age of the company's assets. This indicator has a complicated relationship with the extent of sustainability reporting. Few studies who found positive relation explain the phenomenon as the companies with good performance indicators disclose more to show off their achievement (Clarkson et al., 2008; Desfiandi et al., 2019; Dissanayake et al., 2019; Fuadah et al., 2019; Khan and Hassan, 2019; Mudiyanselage, 2018; Orazalin and Mahmood, 2018). On the contrary, the studies which have found negative relation between these two variables hold this stand that companies with weak performance score face higher pressure from different stakeholder groups. To cope with the legitimacy expectation they eventually start to disclose more information (Brammer and Pavelin, 2006; Clarkson et al., 2008; Hahn and Kühnen, 2013; Mudiyanselage, 2018).

Commonly used proxies for measuring ownership structure are company's listing age in stock market, percentage of government ownership, percentage of foreign ownership, percentage of institutional ownership, concentrated or dispersed ownership, etc. Publicly listed companies are thought to be doing more reporting to comply with different reporting related regulations issued by the listing authorities. More disclosure may also be a result of adopting good practices from the competitors and/or because of stakeholders' pressure (Bogomolova et al., 2018; Dienes et al., 2016; Dissanayake et al., 2019; Hahn and Kühnen, 2013; Haniffa and Cooke, 2005; Jensen and Meckling, 1976; Khan and Hassan, 2019; Mudiyanselage, 2018; Orazalin and Mahmood, 2018).

Desfiandi et al., 2019; Dissanayake et al., 2019; Fuadah et al., 2019; Khan and Hassan, 2019, Mudiyanselage, 2018 all hold the opinion that companies with more government ownership disclose higher volume of sustainability related information to set good example in the industry and because such companies are under more vigorous regulatory requirements. On the other hand, concentrated ownership structure of a company may impede the extent of sustainability reporting by the company because of the access already gained by the dominant shareholder and his/her reluctance to share such privilege with other minor shareholders. Whereas, dispersed ownership structure requires the reduction of information asymmetry in a company (Cormier and Magnan, 2005; Dissanayake et al., 2019; Fuadah et al., 2019; Hahn and Kuhnen, 2013). Prado-Lorenzo et al. (2009) have stated that adopting the Global Reporting Initiative (GRI) guideline also increases the extent of reporting by companies.

Existence of foreign owners in a company may increase the extent of sustainability reporting because of their inability in easy procurement of relevant information about the company, thus the necessity for eradicating information asymmetry arises (Bogomolova et al., 2018; Cormier and Magnan, 2005; Fuadah et al., 2019; Haniffa and Cooke, 2005; Hahn and Kuhnen, 2013; Khan and Hassan, 2019); whereas, some other studies have found no significant relationship between foreign ownership and extent of sustainability related reporting.

The corporate governance structure of a company can play a vital role in the sustainability reporting behavior of a company (Bogomolova et al., 2018; Desfiandi et al., 2019; Dienes et al., 2016; Dissanayake et al., 2019; Fuadah et al., 2019). The determinants mostly used in this variable are- number of independent directors in the board of directors (Khan and Hassan, 2019; Prado-Lorenzo et al., 2009), size of the board of directors as measured by the number of board members, number of board meetings, number of women on the board or chief executive

officer (CEO) duality, the ratio of the number of directors that represent active shareholders' interests divided by the directors on the board has a contradictory effect on sustainability disclosure (Dienes et al., 2016).

There are also analyses with respect to several committees. Usually, this involved analyzing the impact of the existence of a sustainability reporting committee (Khan and Hassan, 2019). They found a positive and significant association, while Lubatkin et al. (2005) found only a positive relation between the existence of such a committee and sustainability disclosure. Furthermore, the impact of an audit committee on sustainability disclosure was analyzed with respect to the following factors: the existence of such a committee per se, the number of members, the presence of independent members on the audit committee and the number of meetings held. Although most variables did not show any relation to sustainability related disclosure, the number of meetings of the audit committee as well as the existence of such a committee are significantly positively associated in one study. In summary, the fact that no negative relationships were measured indicates a positive association between board composition as an indicator of corporate governance and disclosure and between the existence of sustainability or audit committees and sustainability disclosure (Dienes et al., 2016).

The external drivers of sustainability reporting related researches mostly comprise of corporate visibility, industry sensitivity, existence of legal requirements, country-of-origin of the company, etc. Level of media exposure, supply chain position, brand-related aspects are widely used proxies for measuring company visibility. If a company is exposed in the media more than its competitors, it is likely to disclose more information regarding its sustainability related activities to reap benefits from good publicity and/or as a safeguard against probable bad coverage in the media (Bogomolova et al., 2018; Desfiandi et al., 2019; Dienes et al., 2016; Fuadah et al., 2019; Hahn and Kuhnen, 2013; Khan and Hassan, 2019; Mudiyanselage, 2018). The company's position in the supply chain can also dictate its motivation to publicize sustainability related information. Companies with direct consumer contact are more prone to reporting more than companies with indirect contact (Dienes et al., 2016; Hahn and Kuhnen, 2013).

Companies belonging to industries with high level of social and environmental impact are more willing to disclose sustainability related information to match the industry-specific stakeholder pressure. Besides industry variation, extent of sustainability reporting by a company may be influenced by the country-of-origin of that particular company. Since, culture, social norms, and regulations differ from country to country, so do their reporting behavior (Khan and Hassan, 2019; Mudiyanselage, 2018).

A country or an industry's specific regulations relating to reporting requirements of sustainability information play a vital role in disclosure done by companies working in that particular country or industry (Bogomolova et al., 2018; Fuadah et al., 2019; Hahn and Kuhnen, 2013).

3. HYPOTHESES DEVELOPMENT

Earlier studies have shown that sustainability disclosure practices vary among firms, industries, and time (Gray et al, 2001; Hackston and Milne, 1996). This behavior clearly and scientifically determined by various companies and industry characteristics in affecting the relative costs and benefits of such disclosure (Belkaoui and Karpik, 1989; Cormier and Magnan, 2005; Cormier and Gordon, 2001; Hackston and Milne, 1996). This study intends to discuss each of the explanatory factors that will be analyzed.

Different researchers (Branco and Rodrigues, 2008; Bogomolova et al., 2018; Desfiandi, et al., 2019; Dienes et at, 2016; Fuadah et al., 2019; Hahn and Kuhnen, 2013; Khan and Hassan, 2019 and Mudiyanselage, 2018) used legitimacy theory by investigating the role of media coverage in publishing news about a particular company. The results show that the higher the level of media coverage related to social and environmental activities, the higher the stress level of public policy and public attention to the company. Hence, the media is able to influence public community perception on issues like the environment. Prior studies have shown that media is powerful and can influence the public agenda. The result revealed that mass media pressure has a significant relationship to such disclosure. Thus, it can be hypothesized that:

H_1: Company's media visibility is positively associated with its sustainability related disclosure level.

The researchers (Adams, 1994; Bogomolova et al., 2018; Desfiandi, et al., 2019; Dienes et al., 2016; Fuadah et al., 2019; Hahn and Kuhnen, 2013; Khan and Hassan, 2019 and Mudiyanselage, 2018) hold the opinion that companies with more government ownership disclose higher volume of sustainability related information to set good example in the industry and because such companies are under more vigorous regulatory requirements. On the other hand, concentrated ownership structure of a company may impede the extent of sustainability reporting by the company because of the access already gained by the dominant shareholder and his/her reluctance to share such privilege with other minor shareholders. Whereas, dispersed ownership structure requires the reduction of information asymmetry in a company (Brammer and Pavelin, 2008; Cormier and Magnan, 2005; Hahn and Kuhnen, 2013). Prado-Lorenzo et al. (2009) have stated that adopting the GRI guideline also increases the extent of reporting by companies.

Existence of foreign owners in a company may increase the extent of sustainability reporting because of their inability in easy procurement of relevant information about the company, thus the necessity for eradicating information asymmetry arises (Cormier and Magnan, 2005; Haniffa and Cooke, 2005; Hahn and Kuhnen, 2013); whereas, some other studies have found no significant relationship between foreign ownership and extent of sustainability related reporting.

These hypotheses can be drawn from these evidences that:

H_2: Companies with higher level of government ownership disclose more sustainability related information.

Table 1: List of sustainability reporting standards ıssued by global reporting ınitiative (GRI)

Code	Areas of standard	Code	Name of standard	No. of ınformation to disclose
100	Universal standards	101	Foundation	00
		102	General disclosures	127
		103	Management approach	19
200	Economic	201	Economic performance	30
		202	Market presence	10
		203	Indirect economic ımpacts	06
		204	Procurement practices	04
		205	Anti-corruption	12
		206	Anti-competitive behavior	03
300	Environment	301	Materials	10
		302	Energy	37
		303	Water	40
		304	Biodiversity	27
		305	Emissions	73
		306	Effluents and waste	53
		307	Environmental compliance	05
		308	Supplier environmental assessment	07
400	Social	401	Employment	18
		402	Labor/Management relations	03
		403	Occupational health and safety	54
		404	Training and education	06
		405	Diversity and equal opportunity	09
		406	Non- discrimination	07
		407	Freedom of association and collective bargaining	04
		408	Child labor	06
		409	Forced or compulsory labor	04
		410	Security practices	03
		411	Rights of ındigenous people	06
		412	Human rights assessment	06
		413	Local communities	11
		414	Supplier social assessment	07
		415	Public policy	04
		416	Customer health and safety	09
		417	Marketing and labeling	19
		418	Customer privacy	06
		419	Socio-economic compliance	06

Table 2: List of predictor variables

Name of the variable	Proxy used	Operationalization
Media visibility	No. of media reports about the company	Number of reports done in mainstream media about the company
Ownership structure	Government ownership	Percentage of shares held in the company by government
	Institutional ownership	Percentage of shares held in the company by institutions
	Management ownership	Percentage of shares held in the company by directors and top management
	Foreign ownership	Percentage of shares held in the company by foreign investors
Corporate posture	Mention of company's social and environmental responsibility in mission or vision statement	1, if present; 0, otherwise
Characteristics of the board of directors	Board size	No of total members in the board
	Number of ındependent directors in the board	No. of independent directors in the board
	No. of board meeting held	No of board meetings held in a year
	No of subordinate committees of the board	No. of subordinate committees the board has

H_3: Companies with higher level of institutional ownership disclose more sustainability related information.

H_4: Companies with higher level of management ownership disclose more sustainability related information.

H_5: Companies with higher level of foreign ownership disclose more sustainability related information.

According to Ullman (1985 as cited in Kent and Chan, 2003), active posture implies that the company continues to monitor relationships with key stakeholders and seek to manage that relationship to attain an optimum level of interdependence with its stakeholders. Chan and Kent in their 2003 study measured strategic posture of a company using two proxies- one is the presence of a social and/or environmental reporting committee in the

company, and secondly, by the presence of the company's social or environmental responsibility in its mission or vision statement.

Relationship between presence of social and environmental responsibility in a company's mission or vision statement can be explained from institutional and legitimacy theories' point of view. If the responsibility is referred to in the company mission or vision, the company may feel obliged to work keeping this image in mind to remain acceptable to the society at large. Thus, the following hypothesis is set:

H_6:Company with a strategic posture report more sustainability related information.

4. RESEARCH METHODOLOGY

There are 19 energy-producing and/or energy-supplying companies enlisted in the stock exchange under the head 'fuel and power' industry of Bangladesh. Among the companies there are majorly- government- owned electricity, water, petroleum and natural gas suppliers as well as publicly held other power and fuel producing entities.

For being considered as sample, each of the companies needed to comply with these conditions:

a. The company must be listed in the Dhaka Stock Exchange of Bangladesh. Since, the companies enlisted in the Chittagong Stock Exchanges are all listed in Dhaka Stock Exchange as well. Moreover, neither of the exchanges does not have any particular listing requirement different than the other; it will be redundant if companies from two stock exchanges are considered separately.
b. The company's annual report(s) and/or standalone sustainability report(s) must be available as hard copy, or as soft copy from the stock exchange, or in the company website.
c. Data have been taken for 7 years, i.e. from 2011 to 2017 because of practical reasons. The year 2011 has been taken as the beginning year of this study, because on this year, the sustainability reporting related regulations were first introduced in the country and data till 2017 have been taken because this is the latest year whose annual reports are available during the time of data tabulation for this study. And, any company which does not have data for any year of this time period has been excluded from the study.

Keeping all these conditions under consideration, the number of sample companies taken has been 13, resulting in the sample data point being 91 (i.e., 13 companies * 7 years).

4.1. Operationalization of Variables

a. Sustainability related reporting, the dependent variable, and denoted by SR_INDEX, has been calculated using an index. The index has been prepared by reviewing 39 standards given by GRI, the leading body working to institutionalize sustainability related reporting. List of the standards and the number of information item (in total 651) corresponding to each of the standards is given in Table 1.

The dichotomous method has been applied in scoring. Each of the annual reports has been studies to identify if the company in a certain year has reported information regarding the specific topic. If it has, 1 point has been awarded to the company in that particular year. If it has not, then no point or 0 has been awarded. After that, all the points achieved by the company in that particular year have been added together to find the total score it received in a certain year.

b. The predictor variables have been operationalized as under.

The following table shows the independent variables categorized under four groups-media visibility, ownership structure, corporate posture, and characteristics of board of directors. The proxies used to measure these variables have been presented in Table 2.

The scores obtained from each of the annual reports corresponding to each of the years under study has been added and standardized to get scores against each of the above mentioned variables. Then multiple regression analysis has been done in SPSS.

Table 3: Descriptive statistics

Variables	Mean	Std. deviation	n
Dep.: Score in sustainability reporting ındex	53.385	27.926	91
Control: Profitability (ROA)	0.000	0.999	91
Control: Leverage (Debt-Equity ratio)	−0.000	0.999	91
Control: Company size (Natural logarithm of market capitalization)	−0.000	1.000	91
Ind.: Media visibility (Annual advertisement expense)	0.000	1.000	91
Ind.: Govt. ownership	0.000	1.000	91
Ind.: Institutional ownership	0.001	0.988	91
Ind.: Management ownership	0.001	1.000	91
Ind.: Foreign ownership	0.001	0.999	91
Ind.: Corporate posture	0.615	0.489	91
Ind.: Size of the board	0.000	1.000	91
Ind.: Board ındependence	0.000	1.000	91
Ind.: Board meetings held in a year	0.000	0.999	91
Ind.: Number of subordinate committees of a board	−0.000	0.999	91

Table 4: Model summary

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics			df2	Sig. F change
					R square change	F change	df1		
1	0.994[a]	0.988	0.985	3.3665	0.988	436.941	14	76	0.000

a. Predictors: (Constant), Ind.: Number of Subordinate Committees of a Board, Ind.: Board Independence, Ind.: Media Visibility (Annual advertisement expense), Control: Leverage (Debt-equity ratio), Ind.: Board Meetings Held in a Year, Ind.: Institutional Ownership, Ind.: Corporate Posture, Control: Company Size (Natural logarithm of market capitalization), Ind.: Managemnt Ownership, Control: Profitability (ROA), Ind.: Size of the Board, Ind.: Govt. Ownership, Ind.: Foreign Ownership

4.2. Regression Model

For analyzing the dependency of the extent of sustainability related reporting on the above mentioned predictor variables, the following regression model will be used:

$$TSD = \alpha + \beta 1\ MEDVIS + \beta 2\ GOVOWN + \beta 3\ FOROWN + \beta 4\ INSOWN + \beta 5\ POSTURE + \beta 6\ BODSIZE + \beta 7\ BODIND + \beta 8\ BODMEET + \beta 9\ BODCOM + \beta 10\ PROFIT + \beta 11\ LEV + \beta 12\ SIZE + \varepsilon.$$

Where, TSD = Total Sustainability Disclosure; MEDVIS = Media Visibility; GOVOWN = Government Ownership; FOROWN = Foreign Ownership; INSOWN = Institutional Ownership; Posture = Corporate Posture; BODSIZE = Size of the Board; BODIND = Board Independence; BODMEET = Board Meeting; BODCOM = Subordinate Committees of the Board; PROFIT = Profitability of the Company; LEV = Leverage of the Company; SIZE = Size of the Company.

5. DATA ANALYSİS AND FİNDİNGS

The sample data have been analyzed to find out the basic information and better understand the nature of the data set. In order to do so, the minimum and maximum scores of the variables, mean and standard deviations have been calculated. These data have been presented in the following Table 3.

Noteworthy point in the descriptive statistics is that the average score for the fuel and power sector companies in Bangladesh is around 54 items of information, whereas the maximum possible score can be 651. It is way below enough. Moreover, the discrepancy within the industry is also very large, represented by a standard deviation of 27.93.

In the model summary presented in Table 4, the multiple correlation coefficients, represented by R, is indicating a very good level of prediction (0.994). Also, the coefficient of determination, R^2, which is the proportion of variance in the dependent variable that can be explained by the independent variables is also very high (98.8%).

The F-ratio in the ANOVA table, presented in Table 5, tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predict the dependent variable, $F(14, 76) = 436.941$, $P < 0.0005$ (i.e., the regression model is a good fit of the data).

The coefficients table, presented in Table 6, shows that, except the control variables profitability and leverage, and only one of the independent variables, corporate posture, and the rest of the independent variables are statistically significant.

Results of analysis show that the four types of ownership (government, institutional, management, and foreign ownership) of a company and its media visibility influence the company to disclose more information relating to its sustainability activities is statistically significant. The legitimacy theory used to explain the hypotheses in this article complies with this outcome- the owners and the public are the ones to validate and judge the activities of the company. As a result, inclusions of various categories of owners in the company as well as spotlights on the entity in different

Table 5: ANOVA[a]

Model	Sum of squares	df	Mean square	F	Sig.
Regression	69328.203	14	4952.015	436.941	0.000[b]
Residual	861.335	76	11.333		
Total	70189.538	90			

[a]Dependent variable: Dep.: Score in sustainability reporting ındex, [b]Predictors: (Constant), Ind.: Number of subordinate committees of a board, Ind.: Board ındependence, Ind.: Media visibility (Annual advertisement expense), Control: Leverage (Debt-equity ratio), Ind.: Board meetings held in a year, Ind.: Institutional ownership, Ind.: Corporate posture, Control: Company Size (Natural logarithm of market capitalization), Ind.: Management ownership, Control: Profitability (ROA), Ind.: Size of the board, Ind.: Govt. Ownership, Ind.: Foreign ownership

Table 6: Coefficients[a]

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% confidence ınterval for B	
	B	Std. dev.	Beta			Lower bound	Upper bound
(Constant)	−33.917	6.772		−5.008	0.000	−47.404	−20.429
Control: Profitability (ROA)	−0.318	0.823	−0.011	−0.387	0.700	−1.958	1.321
Control: Leverage (Debt-equity ratio)	−0.010	0.659	0.000	−0.015	0.988	−1.322	1.302
Control: Company size (Natural logarithm of market capitalization)	−92.897	5.655	−3.328	−16.428	0.000	−104.160	−81.635
Ind.: Media visibility (Annual advertisement expense)	22.159	1.535	0.793	14.433	0.000	19.101	25.217
Ind.: Govt. ownership	−118.168	7.324	−4.231	−16.135	0.000	−132.754	−103.582
Ind.: Institutional ownership	−46.014	3.396	−1.629	−13.550	0.000	−52.777	−39.250
Ind.: Managemnt ownership	−173.642	11.074	−6.218	−15.681	0.000	−195.697	−151.587
Ind.: Foreign ownership	−65.101	6.258	−2.331	−10.403	0.000	−77.565	−52.637
Ind.: Corporate posture	7.741	4.130	0.136	1.874	0.065	−0.484	15.965
Ind.: Size of the board	40.049	3.343	1.434	11.981	0.000	33.391	46.707
Ind.: Board ındependence	7.983	1.250	0.286	6.388	0.000	5.494	10.472
Ind.: Board meetings held in a year	25.190	3.336	0.902	7.552	0.000	18.547	31.833
Ind.: Number of subordinate committees of a board	−87.400	4.356	−3.130	−20.067	0.000	−96.075	−78.726

[a]Dependent variable: Dep.: Score in sustainability reporting ındex

media make it to disclose more of its social and environmental information. This also concurs with the results found in previous empirical studies (Freeman, 1984; Fuadah et al., 2019; Khan and Hassan, 2019; Mudiyanselage, 2018; Orazalin and Mahmood, 2018). Besides, the results make the hypotheses about media visibility, government ownership, foreign ownership, management ownership, and institutional ownership accepted.

6. CONCLUSİON

Energy sector of any country has a crucial role to play in developing its economy. It is also important to maintain responsibility towards the employees, environment, and to the society at large. The extent of sustainability related reporting done by companies working in the energy sector of Bangladesh is dismal. Still, those are significantly influenced by number of subordinate committees of a board, number of board meetings held during a year, board independence, size of the board, and ownership structure of the company.

The findings of this paper may help Bangladeshi bureaucrats and lawmakers in formulating future policies for energy sector. Government, foreign, management, and institutional ownership make the company to disclose more information relating to sustainability issues, since to carry on working so closely to the environment, local community's support and maintaining environmental balance is crucial. That is possible only if the company discloses information as more as it can. Besides, this goal can also be achieved through the companies' advertisement campaigns (media visibility) and expressed corporate posture in their annual reports and websites.

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