

The Relationship of Corporate Governance and Environmental Performance towards Environmental Disclosure of Oil and Gas Companies Operating in Malaysia Upstream Projects

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Abstract

In recent years, the environmental disclosures have increased as the concerns on global environmental issues are growing. Oil and gas industry deals with destructive operations and is considered as the most exposed industry which owes its effort to be responsible in disclosing the information about the activities and maintaining sustainable developments. The purpose of this research is to analyze the relationship between environmental performance and corporate governance towards Environmental Disclosure of oil and gas companies operating in Malaysia upstream projects by adopting the Global Reporting Initiative (GRI) index as benchmark. This research is a quantitative study using content analysis based on the secondary data extracted from the annual reports of oil and gas companies. Descriptive statistics, Spearman's Rho test and logistic regression were conducted to examine the relationship between the variables of this study which revealed the positive relationship. This research used combination of theories which are voluntarily disclosure theory, stakeholder's theory and agency theory.

Keywords: *environmental disclosure; environmental performance; corporate governance; oil and gas; GRI; content analysis; logistic regression*

1. Introduction

This study investigates the relationship between environmental performance and corporate governance towards environmental disclosure in the annual reports of oil and gas companies which involve in Malaysia's upstream projects by using GRI disclosure index as guidelines. The study is motivated by the limitation of studies on the relationship mentioned in term of non-financial factors which focusing on the upstream oil and gas companies. One of the five most polluting industries is the oil and gas industry[1]. The accountability of the companies' decisions have been influenced by the forces and also the response to the demand of social to manage the negative environmental impacts on biodiversity, climate and human health which are caused by economic activities. Therefore, the transparency of environmental is important at international level[2]. The international guidelines that is most widely used regarding sustainability reporting is the GRI which provides the guidelines on environmental, social and economic sections for reporting[3]. In Malaysia, Bursa Malaysia plays an important role in enhancing the transparency of the corporate environmental information, corporate governance related issues as well as social issues among companies in Malaysia. Bursa Malaysia launched a new Sustainability Framework in October 2015 and has developed a Sustainability Reporting Guide which is aiming to assist the listed issuers in improving the

sustainability-related disclosures in order to meet the gradual information needs by various stakeholders. This new framework is aligned with the international reporting frameworks – GRI Guidelines. Bursa Malaysia has demonstrated its commitment to the sustainability by having the listed companies to disclose their narrative statement on their materials of economic, environmental and social (EES) in their annual reports [4].

2. LITERATURE REVIEW

A. Oil and Gas Industry (Upstream Sector)

Oil and gas industry consists of a few major activities which include the upstream sector. In this phase, companies are responsible for exploration and production of the crude oil and natural gas deposits. The upstream sector is a part of the oil and gas industry which is responsible for exploration activities and producing the crude oil and natural gas deposits. The activities from oil and gas industry cause major potential hazards and environmental impacts such as pollution and greenhouse effect [5]. Since oil and gas industry is one of the major industry in Malaysia which contributes significantly to the nation's economy, therefore this research covers on the oil and gas companies operating in Malaysia upstream projects as the focus of the study.

B. Environmental Disclosure

The environmental disclosure is one of the mechanism for communication used by the companies where the related information for the environmental disclosure could be found from the companies' annual reports, sustainability reports, and CSR reports in which it is measured by using the GRI index [6][1]. Environmental disclosure is one of the strategies in communicating the companies' commitment and efforts to the public on protecting the environment. The increasing awareness and public concern on the environmental impacts has led to increasing the environmental disclosure by the companies [7]. There are diverse means used by the companies in disclosing their environmental management which include the annual reports and sustainability reports as the communication tools and the dissemination of these reports by the companies assist in analyzing the environmental information that the companies provide. The practices for environmental disclosure have been evolving in attention in recent years in the literature perspective. Environmental disclosure is crucial in describing on the operational practices of a company which relate to the environment directly [8]. This research observes the factors which are expected to have relationship on environmental disclosure which are environmental performance and corporate governance.

C. Environmental Performance and Corporate Governance

Environmental performance indicates how the organizations effectively concern and taking care of their responsibilities towards the environment [9]. The disclosure could help the companies in gaining good reputation and reduce the impact of their operations on the environment [8]. There are many measurements in accessing the environmental performance such as environmental rating [10], environmental index [11], total emissions [12], and adoption of environmental policy [13]. However, up to the recent years, there is still no common structure and comparable tool in measuring environmental performance of organizations [14] and thus making it difficult in comparing the companies in term of their environmental performance though it is commonly understood to be in the measuring of the environmental impacts of the organizations. Since the effects of greenhouse gas (GHG) emissions have significant impact on the global warming [15], hence it is reported under the emissions trading as the major impact from the oil and gas activities. "It is expected that the companies would play their vital role to reduce the GHG emissions in order to stabilize the change in the climate" [16]. While pollution has been used widely by the companies as an indicator to their environmental performances. This is because pollution is the most dangerous and widespread impact which associated with

almost all activities throughout all phases of oil and gas activities. Based on previous studies, this study has chosen GHG Disclosure [17][18] and Pollution Disclosure [19][20] as the measurement for Environmental Performance in accessing the relationship with Environmental Disclosure.

The corporate governance issues have been highlighted in recent years as it is an important system for checking and balancing in both the external and internal to the companies in ensuring the companies to discharge their accountabilities and responsibilities towards their stakeholders and to act in a socially manner in all of their business activities areas [21]. Among the important dimensions of the corporate governance in oil and gas industry which have association with Environmental Disclosure is Board Size [22][23][24][25] and No. of Environmental Committee [26][27]. Board size is referred to as the number of directors appointed to the board of directors of a company. It is also has been referred to as a mechanism for monitoring the governance of company which has been proved to an effective indicator in internal monitoring [28]. The existence of environmental committee in the board of directors is important as their presence will enhance the awareness of the companies in managing the environmental impacts of their business, hence reporting more on Environmental Disclosure.

The voluntary disclosure theory indicates that the companies are preferred to report good news rather than disclosing bad news [17]. The companies tend to only disclose about corporate information if only they are certain that their environmental performance is good. Therefore, the companies with better or superior environmental performance tend to voluntarily disclose on their corporate information to distinguish themselves from the poor performers [29][30]. The stakeholder theory indicates that the more important the stakeholders to the company, the more efforts will be exerted by the company to manage and manipulate the relationship by using environmental disclosure as a way to convey on their environmental performance. Companies are exerted by the pressure of their stakeholders such as their shareholders as well as the consumers in decreasing the GHG emissions [31]. According to the agency theory by [28], it is remarked that there is a high level of potential for conflict of interest between the owners and managers in big size companies which have greater agency costs. By having the environmental disclosure, it is therefore expected that the agency costs arose from the conflicts between the shareholders and managers to be reduced.

3. DATA ANALYSIS

This research is a quantitative study using secondary data collected from 54 annual reports of oil and gas companies listed in the Malaysia Oil and Gas Report 2016 Q1 from the year 2015 and 2016. By adopting the GRI guidelines, this study is conducted using content analysis. As been explained in the previous section, the framework of this study consists of Environmental Performance and Corporate Governance as the independent variables and Environmental Disclosure as the dependent variable with the hypothesis developed as followed:

H1: Environmental Performance is positively associated with Environmental Disclosure.

H2: Corporate Governance is positively associated with Environmental Disclosure.

The analysis and tests that are conducted to examine the demographics and relationship of the variables are descriptive statistics, Correlation analysis (Spearman's Rho test) and Logistic regression analysis.

For the Environmental Performance and Corporate Governance based on the Disclosure Year of 2015 and 2016, the disclosures were the same for both years with Percentage=96.3% for Environmental Performance and Percentage=81.5% for Corporate Governance. Under the demographic Type of Companies of Local and International, the

results showed that the Local companies have better Environmental Performance and Corporate Governance compared to the International companies. For Environmental Performance the percentage of disclosure for Local companies was 100% while for International companies was 94.7%. For Corporate Governance, the percentage of disclosure for Local companies was 100% while for International companies was 73.7%. This is because the Local companies are enforced to comply with local policy and follow the Malaysian Companies Act. Based on the demographic Availability of Sustainability Report, the companies with available sustainability report have higher disclosure compared to the companies with no available sustainability report for the Environmental Performance and Corporate Governance. Environmental Performance (Available Sustainability Report: Percentage = 100%; No Available Sustainability Report: Percentage = 92.9%). Corporate Governance (Available Sustainability Report: Percentage = 96.2%; No Available Sustainability Report: Percentage = 67.9%). It was also found that the Midstream companies have higher Environmental Performance and Corporate Governance compared to Upstream and Downstream companies. The percentage of Midstream companies for Environmental Performance is 100% while Upstream is 92.3%. For Corporate Governance, the percentage of Midstream companies is 81.3% while Upstream companies is 73.1%. This might be due that Midstream companies which are also known as integrated companies tend to have more concerns on the environmental performance as well as their corporate governance mechanisms since they are more exposed to the environmental related activities.

The results for the correlation analysis shows that there are statistically significant positive relationship between Environmental Performance and Corporate Governance towards Environmental Disclosure with Correlation coefficient = 0.470 and 0.472 accordingly.

The Logistic regression indicates that the value of Cox & Snell R Square = 0.211 and Nagelkerke R Square = 0.372 suggesting that between 21.1% and 37.2% of the variability explained by this set of variables. It also means that 21.1% of the variation in the DV or Environmental Disclosure is explained by this logistic model. The results show that Hosmer and Lemeshow Test also support this research model because the value is larger than 0.05 which is statistically significant.

TABLE I. MODEL SUMMARY

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	32.489	0.211	0.372

TABLE II. HOSMER AND LEMESHOW TEST

Step	Chi-square	df	Sig.
1	0.000	1	1.000

4. DISCUSSION

This research finally seeks to identify which independent variables influence most in reporting the Environmental Disclosure in the annual reports. Hence, the study answered the RQ (i): Is there a relationship between Environmental Performance and Environmental Disclosure of the oil and gas companies operating in Malaysia upstream projects? ; RQ (ii) Is there a relationship between Corporate Governance and Environmental Disclosure of the oil and gas companies operating in Malaysia upstream projects? The strongest predictor of Environmental Disclosure is Environmental Performance. This indicated that companies which have better Environmental Performance more likely to report Environmental Disclosure than companies which did not have better Environmental Performance, controlling for all other factors in the model. In conforming with the previous studies, [32][1][17][33][34], this study concludes that Environmental Performance and Corporate Governance are positively associates with Environmental Disclosures in the annual report. From the descriptive statistics, companies with the demographics; disclosure year 2016, local, available sustainability report and midstream companies disclose more of Environmental Disclosure as compared to the other categories. These demographic factors are also among the contributions to the overall results of this study. This study selects two disclosure year 2015 and 2016 aiming to see the increase in the second year after new framework launched by Bursa Malaysia. It shows significant different between the two years and Companies disclose more in 2016. A few studies conducted [35][36]to analyze the company's performance in disclosing environmental disclosure in annual report which mainly aimed to see the improvement and better performance. The demographic factor, Type of Companies also contributes to the amount of environmental disclosure in annual report. The result reveals that local companies disclose more as compared to international companies. It is as per expectation that local companies to comply with local policy and follow the Malaysian Companies Act. They also would get the faster information about the new rules and regulations as compared to International Companies which at the same time must also abide their home country regulations.

Some companies in oil and gas industries are well concern with the environmental activities and they already established with the Sustainability Report. This study goes further and discovers that all companies with the Sustainability Report disclose their Environmental Disclosure in their annual report. This also explains the stakeholder theory where the company's activities are transparent and for the benefit of stakeholders.

The other important demographic factor is Specialized Business Sector in oil and gas industry. The analysis shows that companies from Midstream sector discloses more on their environmental activities on the annual report. Most of the large companies in oil and gas are integrated companies consist of upstream, midstream and downstream sector. Midstream companies involve with processing and producing oil and gas related products which requires them to adhere with environmental policy.

This study lead to important directions for future research. Specifically, there is evidence that the theories are robust in predicting what is being explained.

After the implementation and enforcement by Bursa Malaysia on sustainability reporting in 2015, the companies still require time to adopt with the changes. Hence, two years span is considered as constraint for them to fully comply with the policy. Therefore, it is expected that future research should cover a longer research period because the companies are assumed to be more prepared to disclose on environmental related issues in their annual reports.

The future research is suggested to develop checklist in accordance to the local guidelines and policies. This is because some of the items from the checklist which are adopted from the GRI guidelines are not relevant in the annual reports. It is also

recommended that future research not to include on the number of environmental committee as part of the mechanisms of corporate governance. It is predicted that the companies might have Board of Director which have knowledge in environment whom at the same time acting as advisor in the environmental related activities. This might cause redundancy of functionality in board members and environmental committee itself. In addition, the future research is also advised to extent the data not only from the annual reports but should also cover sustainability reports, CSR reports and websites so that the data would comprehensively covered. This is because some of the environmental related information are not solely disclosed in the annual reports.

For future practice, it is recommended for Malaysia to develop a standard for Environmental Performance index or measurement to ease the companies in monitoring their environmental activities. This can be implemented by adopting a national standard for environmental performance measurement such as Indonesia's Program for Pollution Control, Evaluation, and Rating (PROPER) and Common Environmental Performance Indicators (CEPIs). Since Malaysia is moving forward as a developed country, Sustainability Reporting enforced by Bursa Malaysia is one of the initiative by the government to enhance the transparency of companies reporting related to the environment. In future, companies are expected to disclose their environmental information solely in the Sustainability Report. This has been established by a few developed countries such as U.S., U.K., German and Norway. Besides, the government should take initiative to implement that companies must have an independent and functional environmental committee in their organizational structure. This is very important to closely monitor on their environmental activities.

5. CONCLUSION

In conclusion, overall results reinforce the study's general argument that environmental performance and corporate governance plays an important role in determining the quantity environmental disclosures in the annual reports. The main contribution or originality of the current research is its being the first study, to empirically address corporate environmental disclosure quantity in Malaysia in line with the international reporting framework which is the Global Reporting Initiative (GRI). This study also among the first study which focusing on the non-financial factors which influence the environmental disclosure in oil and gas industry. The study introduces to the academic literature focusing on what is disclosed, providing evidence from the existing literature trying to reconcile the stakeholder's theory, voluntary disclosure theories and agency theory in the oil and gas companies and in Malaysian context. An integration of these theories provides a comprehensive view of environmental disclosure, showing that more than one theory can be used in future research to explain different aspects of managerial behaviors and company characters while acting on behalf of the stakeholders.

Acknowledgments

I would like to take this moment to express my sincere gratitude to Ms. Safarina binti Abdul Ghani, my supervisor, Faculty of Business Information Science, UCSI University Terengganu Campus, which also acts as the co-author for this research for her continuous and priceless supports and knowledges given to me in conducting this research properly. Last but not the least, I would like to thank my parents for their endless courage and supporting me spiritually throughout completing this thesis.

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