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Article

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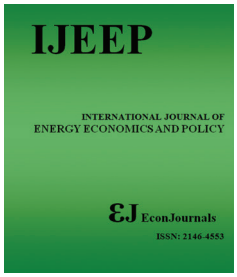

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Carbon Emission Disclosure in Indonesian Firms: The Test of Media-exposure Moderating Effects

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ABSTRACT

Carbon emission disclosure serves to justify firms' sustainable business endeavors. This study contributes to the minor discussions of this topic in the context of Indonesian. The role of media exposure to moderate the firms' size, profitability, leverage, and environmental performance toward carbon emission uses is also inadequately addressed in previous studies. This study aims to fill these discrepancies by investigating financial statement data of firms listed in the Jakarta Islamic Index, Indonesia (JII), from 2012 to 2016, employing moderated regression techniques. All direct relationships are significant. The media exposure significantly moderates firms' size and leverage, but not to profitability and environmental performance. We also discuss several considerations with environmental disclosure issues in Islamic Index along with its implications.

Keywords: Carbon Emission Disclosure, Firms' Size, Leverage, Environmental Performance, Media Exposure
JEL Classifications: L82, F64, G10

1.INTRODUCTION

In the 60s-70s perspective, the only purpose of corporate entities is to increase profits for its shareholders (Singh et al., 2017). Firms raced to obtain a decisive edge in the market as their competitive advantage (Amar et al., 2019). The last two decades had shown that the world community began to care about the sustainability of their environment and the various ways to repair the damaged nature. The Peak was when the majority of countries in the world ratified the Kyoto Protocol, which is an amendment to the United Nations Framework Convention on Climate Change (UNFCCC). As a response to the growing concerns, Indonesia had also taken part in the Kyoto Protocol by the state bill No. 17, 2004 to implement sustainable development and participate in efforts to reduce emissions of greenhouse gases (GHG) emissions globally. An essential part of this discussion is the firms' environmental disclosure.

The disclosure aims to provide a summary of the conditions and activities within the organization to facilitate the preparation of annual reports. Environmental exposure is the disclosure in the company's annual report of information regarding the environment (Brammer and Pavelin, 2008; Cormier and Magnan, 2007; Murdifin et al., 2019; Nazir et al., 2020; Dahliah et al., 2020). Brown and Deegan argued that environmental disclosure is critical to do because by disclosing the environment in the company's annual report, the public can monitor the company's activities to fulfill its social responsibility (Brown and Deegan, 1998). In this way, the business will gain positive community benefits, recognition, confidence, and support. The purpose of environmental disclosure is to provide users of financial statements with relevant and vital information for decision-makers.

Recent developments have shown that environmental values had gained vital interests from aspiring investors, as several studies indicated the apparent benefits of being environmental-friendly (Albrizio et al., 2017; Yadav et al., 2016). On the contrary, a study of over 16.023 firms found that top international firms were not better than their peers when it comes to environmental

performance (Aragón-Correa et al., 2016; Suriyanti et al., 2020. These conflicting recent studies provided evidence as to the unclear effects of environmental disclosure to firm values. This study contributed to the discussions in this issue by providing evidence in the Indonesian experience.

Environmental exposure is still voluntary in the annual report, so whether or not this disclosure in a company's annual report depends on each company itself. Financial accounting standards in Indonesia do not require all companies to disclose environmental information; thus, many companies do not disclose ecological details. This study also magnified the specific contribution by investigating several firms listed as Islamic-compliant firms in Jakarta Islamic Index, Indonesia. This index hosts 30 firms, curated by the Islamic Advisory Board of Indonesian Stock Exchange, which are in line with Islamic teaching. Islam also stresses environmental preservation as part of service toward God (Alpay et al., 2013; Kula, 2001). Previous studies discussing this issue in the Indonesia context were mainly testing it in linear tests (Apriliana, 2019; Cahya, 20116; Cristea, 2016; Saptiwi, 2019; Widiastuti et al., 2018). This study extended the conversation by testing the moderating effect of media to enhance the impact of firms' size, profitability, leverage, and environmental performance toward carbon disclosure. The results of our study discovered mixed findings in that all variables were significant in the linear form, but not in the moderating regressions. These findings further extended the missing link in the discussions.

2. REVIEW OF THE SCIENTIFIC LITERATURE

2.1. Stakeholder Theory

This study discussed carbon emission disclosure, which put the pressures on firms to inform their environmental situations voluntarily or involuntarily. As firms were mostly individualistic-collectivism in nature (Morris et al., 1993), the role of stakeholders was to push the firms to shift from economic value only toward broader perspectives (Harrison and Wicks, 2013). Thus, this study incorporated the stakeholder theory when discussing carbon emission disclosure, although another study pointed to the superiority of a sustainable view than stakeholder one (Gibson, 2012). Freeman defined a stakeholder as any group or individual who can affect or be affected by the achievement of organizational goals (Freeman, 2015). In his 1984 seminal work, Freeman introduced the concept of stakeholders into two models: (1) The policy and business planning models and (2) a model of corporate social responsibility of the management of stakeholders (Freeman, 1984. p. 64). Hence, companies need to identify the stakeholders' expectations—entities that have more considerable influence to destabilize the company's survival if their expectations are not met.

The theory of stakeholders is closely linked to Corporate Legitimacy Theory. A company can affect various stakeholder groups, including consumers, suppliers, governments, competitors, the general public, employees, and shareholders, through its policies and operations. The firm can face demands from corporate stakeholders to help protect the interests of those affiliated with it (Brown and Forster, 2013; Harrison and Wicks, 2013; Laplume et al., 2008; Mitchell et al., 1997; Phillips et al., 2017). Henriques and Sadorsky categorize company stakeholders into four groups, namely: organization (including employees, customers, suppliers, and shareholders); community (residents and special interest groups); regulations (town, local and central government, regulatory system); and media; (Henriques and Sadorsky, 1999).

Stakeholder theory stresses corporate awareness to take into account the needs, interests, and influence of those affected by policies and operations of companies (Stanny, 2013). The objective of management is to meet most of the issues that concern the stakeholders of the company (Luo et al., 2012). The basic principle of stakeholder theory is that the more reliable its relationships with the related environment, the better the corporate benefits (Apriliana, 2019). Conversely, the worse the relationship between corporations, the harder it will be. Healthy relationships are built on trust, respect, and cooperation with stakeholders. Stakeholder theory can support the strategic management of firms, which aims to help companies strengthen relationships with external groups and develop a competitive advantage (Lestari et al., 2020; Firman et al., 2020).

While stakeholder theory can broaden the corporate management perspective and clearly explain the relationship between companies and stakeholders, there are weaknesses to this theory. Gray et al. pointed out that it lies at the heart of the company's methods of managing its stakeholders. The company only aimed at finding stakeholders considered relevant and authoritative, with emphasis those beneficial to the business. Stakeholder theory lacks the impact of society as a whole on the presentation of financial reporting information (Gray et al., 1996). Some scholars argued that stakeholder theory is a justification for opportunistic behavior (Jensen, 2001; Sternberg, 1997), and could not provide the business with a reasonably clear purpose function (Jensen, 2000). Other criticisms question the allocation of monetary outcomes primarily, and all vested interests must also be considered equal (Gioia, 1999). Despite these critiques, the use of stakeholder theory was broadly used for its simple and direct use in the firms.

2.2. Legitimacy Theory

Dowling and Pfeffer originally coined the theory of legitimacy, which explained it as an existing condition or status when the system value was equal to the value of the broader system community where the entity is located (Dowling and Pfeffer, 1975). To be successful, the organization had to act according to the widely accepted rules in public (O'Donovan, 2002), as it provided the golden ticket of operating in one area (Deegan, 2002). People took the evaluators of firms, and their actions were subject to social value, prevalent in the environment (Bitektine and Haack, 2015). Thus, this study discussed the legitimacy theory with the application of green accounting in its daily activities.

Gray defined legitimacy as "a systems-oriented view of the organization and society … permits us to focus on the role of information and disclosure in the relationship between organizations, the State, individuals, and groups" (Gray et al., 1996). The concept says legitimacy is a method of company

management directed to conform with the culture (society), individual governments, and community groups. Of this purpose, it is a framework that gives priority to alignments or desires of society. The activities of the company have to be in line with community standards.

Deegan, Robin, and Tobin claimed that validity could be achieved when a match occurs between the presence of a corporation that does not intervene or adhere to the presence of a value structure that happens in society and the environment. Should inconsistency present, then the company's reputation will be challenged (Deegan et al., 2002). The reason for this principle is that if the society understands that the organization works with a value system commensurate with the value system itself, the organization or corporation will continue to exist. Legitimacy theory encourages companies to make sure their activities and performance are socially acceptable. Companies use their annual reports to describe the sense of responsibility for the environment, in line with community acceptance. With the approval, the company's reputation is expected to grow and further increase to company income. This condition may encourage or help investors make investment decisions.

Carroll and Bucholtz note that the growth of society's level of knowledge and culture opens up opportunities for increased demands on awareness of environmental health. Besides, the company's reputation in the eyes of stakeholders can be accomplished with the honesty of applying principles in business ethics and rising corporate social responsibility (Carroll et al., 2018). However, a legitimacy gap may arise where there is a discrepancy between company practices and stakeholder expectations. Neu et al. suggest that businesses must identify the activities under their control and reveal their efforts to curb the problems (Neu et al., 1998). Legitimacy presents as stakeholders recognize the firm's efforts, but the company itself is responsible for it (Ashforth and Gibbs, 1990; Bittar-Godinho and Masiero, 2019; Fisher et al., 2017). The improvements in social values and expectations are a catalyst for organizational reform and a source of pressure for organizational legitimacy (Henisz and Zelner, 2005; Smith, 2011).

2.3. Environmental Accounting

Environmental accounting was simply defined as how the information of the environment is expressed in financial terms (Klassen and McLaughlin, 1996). It emerges as the reception of green idealism was not wholly successful; instead, a compromisation occurred as the financial demands permeate in the business. Careful incorporation without sacrificing the goals emerges as the object of interests among practician and academicians (Freeman, 2015). The conventional image of accounting reflects capitalist views. As such, the presence of green accounting came to remedy this issue, given the role of business organization in the environmental problems (Jones, 2010).

Contrafatto and Burns (2013) categorized accounting for the environment into two functions. They are internal roles that were used by managers and related business units as a business management tool. Secondly, external tasks that disclose the results of measuring environmental conservation activities, external functions enable companies to influence decision-making by stakeholders. The operational activities of each company will impact on the surrounding environment (Contrafatto and Burns 2013). There is no doubt that the positive impact lies in the form of labor absorption and a growing economy. But the negative is taking shape in noise emissions, waste generation, holes, etc. This sort of impact is known as an externality. To mitigate the adverse effects on the environment, some experts consider that the accounting field may play a role in those efforts by disclosing the company's environmental activities in its financial statements. Disclosure will contribute to the company's environmental performance by allocating ecological costs based on the type of expenses. Publishing environmental accounting reports would work well as an agency tool to meet the environmental obligations of the company for accountability to stakeholders and as a fair way of evaluating conservation activities.

2.4. Hypothesis Development

Studies have shown that the scale of corporations has a favorable relationship to carbon disclosure (Abdullah et al., 2017; Bae et al., 2013). More prominent companies were more evident in their activities, enhancing their positive contribution to the local community (Aragón-Correa et al., 2016). Along with firm size, companies with excellent financial conditions are more likely to disclose environmental information. The reason was that they had better financial freedom in making decisions regarding the environment (Akbaş and Canikli, 2019; Luo et al., 2012). Thus, the hypotheses were as follows:

H_1: Larger companies would disclose more of their carbon use.

H_2: Profitable firms would also disclose more of their carbon emission.

Modern firms are subject to debts (Fama and French, 2002; Hovakimian et al., 2001). Another study found that liabilities were not static, as firms could be savers or highly-leveraged without debt target (Hennessy and Whited, 2005). Albeit Hennesy finding, firms with higher levels of leverage would disclose more of their activities, including the carbon emission (Alarussi and Alhaderi, 2018; Luo et al., 2012), and thus:

H_3: Firms with high leverage would disclose carbon emission disclosure even more.

Firms with an exceptional quality of environmental performance certainly would disclose their carbon as a screening method (Dawkins and Fraas, 2011). As the eyes of stakeholders on them and to obtain legitimacy in their operation, it was to no surprise that firms disclose essential information to the public (Stanny, 2013; Stanny and Ely, 2008). Thus, several studies supported the notion that environmental performance was imperative to be disclosed, including firms' carbon uses (Clarkson et al., 2008; Dawkins and Fraas, 2011), and thus:

H_4: As the firms' environmental performance increased, their carbon emission disclosure did too.

Information is critical in the firms as they establish their image toward stakeholders. Firms symbolically created positive images with the help of media, as such media could also present in its not ideal form of controlling tools (Bednar, 2012). However, firms

would disclose more under the presence of great media activities to obtain legitimacy in the environment (Braojos-Gomez et al., 2015). Media could highlight the ineffective directors for the benefit of shareholders or even stakeholders (Joe et al., 2009). As such, the presence of media could boost the attention of all evaluators to scrutiny the size, profitability, leverage, and environmental performance to disclose firms' carbon use (Dawkins and Fraas, 2011; Elshandidy et al., 2013; White et al., 2010). Thus, media could be a positive propeller of carbon disclosure among firms, and therefore:

H_5: The size of the company influenced the carbon emission disclosure with media exposure as a moderating variable.

H_6: Media exposure boosted the effect of Profitability on carbon emission disclosure.

H_7: Media would put the high leverage firms to disclose more.

H_8: Media would increase the firms with high environmental performance to disclose their carbon activities even higher.

3. RESEARCH METHODOLOGY

This study is quantitative research, digging into the descriptive and causal models in time-series data. We specifically collected data from the Jakarta Islamic Index (JII) from 2012 to 2016. This index comprised 30 firms, carefully curated by the Islamic Supervisory Board of Indonesian Exchange. Firms in this index are interchangeable, as revision occurs semi-annually. This study specifies the data as (1) Companies that consistently included in the index JII for ten periods (during the study period from 2012 to 2016); (2) firms that are not delisting on years of research; (3) Companies that implicitly or explicitly disclose carbon emissions (including at least one policy that is associated with carbon emissions/greenhouse gases or express at least one item of disclosure of carbon emissions); (4) Companies included in the Program Performance Rating (PROPER) organized by the Ministry of Environment of the Republic of Indonesia in the period 2012-2016, as a rating of environmental obedience in Indonesia. This paper collected the data from idx.co.id, and in the www.menlh.go.id throughout 2012-2016. As to the conformance of the criteria above, this study obtained a sample of 150 firms.

This study measured the size of the companies as total assets of the company for a given year. This study also used return on assets (ROA) to measure the profitability of firms, and debt to equity ratio (DER) to measure the leverage of firms. Environmental performance measurement used the PROPER, as mentioned above. This study used multiple regression and moderated regression analysis in SPSS to investigated the proposed hypotheses.

PROPER oversights activities and program incentives and disincentives to the responsible business or event. PROPER includes a ranking of companies in 5 colors: Gold (very good, a score of 5), Green (excellent, score 4), Blue (well, score 3), Red (bad, score 2), and Black (very bad, a score of 1). Media exposure measured used dummy variables where a value of 1 for companies that share more information concerning carbon emissions through the company website, as well as various media disclosures such as annual reports, sustainability reports, newspapers, and other media, while the value 0 otherwise.

This study investigated Carbon Emission Disclosure using several items developed by Choi et al. That study developed a checklist based on the request form's information provided by the CDP (Carbon Disclosure Project) (Bae et al., 2013). Selection of five broad categories that are relevant to climate change and carbon emissions are as follows: risks and opportunities of climate change (CC/Climate Change), the emission of greenhouse gases (GHGs/Greenhouse Gas), energy consumption (EC/Energy Consumption), reduction of greenhouse gas glass and cost (RC/Reduction and cost) as well as the accountability of carbon emissions (AEC/Accountability of carbon emission). The following checklist disclosure of carbon emissions shown in Table 1:

The calculation of the Carbon Emission Disclosure index is (1) Giving a score on each disclosure item on a dichotomous scale; (2) The maximum rating is 18, while the minimum score is 0. Each item has a value of 1 so that if the company discloses all items in the information in its report, the company's rating is 18; (3) The sum of all scores would serve as the final data. Finally, the author proposed the following conceptual framework (Figure 1):

4. RESULTS AND DISCUSSION

Before regressing the data, this study conducted tests of classical assumptions. Firstly, the study employed the normality test with Kolmogorov Smirnov and found the result that revealed that the value of the Kolmogorov-Smirnov Z score is 1,100 with a non-significant level of 0.178. The result proofed that research variables were normally distributed. Secondly, the test was the multicollinearity level of data by observing its VIF value. The expected value for tolerance score is more significant than 0.1 and VIF <10. The study revealed that all VIF for all variables had a value of <10, and tolerance values >0.10. Thus, firm size, profitability, leverage, environmental performance, and carbon emission disclosure are free from multicollinearity among independent variables. Thirdly, this study checked the possibility of heteroscedasticity in the data and found a non-significant score in the data. After the model fitted classical assumptions, the next tests were hypothesis testing.

Table 2 showed that the adjusted R^2 value of 0.553, revealing that 55.3% effect size toward carbon emission disclosure by independent variables, like firm size, profitability, leverage, and environmental performance. The remaining 44.7% was subject

Figure 1: Conceptual framework

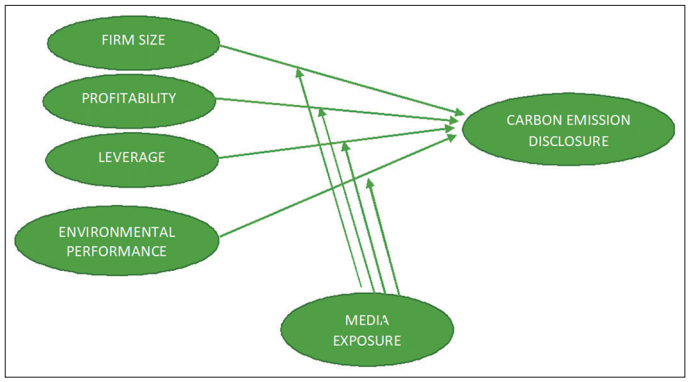

Table 1: Emission carbon disclosure checklist

Category	Items
Climate change: Risks and opportunities	CC-1: Assessment/description of the risk (rules/regulations, both specific and general) that are associated with climate change and the actions taken to manage those risks. CC-2: Assessment/description of the current (and future) of the financial implications, businesses, and opportunities of climate change.
Greenhouse gas emissions (GHG/Greenhouse Gas)	GHG-1: Description of the methodology used to calculate greenhouse gas emissions (e.g. GHG protocol or ISO). GHG-2: The existence of external verification of the quantity of GHG emissions by whom and on what basis. GHG-3: Total greenhouse gas emissions (metric tons of CO_2-e) were produced. GHG-4: Disclosure of scope 1 and 2, or 3 direct GHG emissions. GHG-5: Disclosure of GHG emissions based on origin or source (e.g., coal, electricity, etc.). GHG-6: Disclosure of GHG emissions based on facility or segment level. GHG-7: Comparison of GHG emissions with previous years.
Energy consumption (EC/Energy Consumption)	EC-1: The amount of energy consumed (e.g., tera-joules or MAP-joules). EC-2: Quantification of energy used from renewable resources. EC-3: Disclosure by type, facilities, or segment.
Greenhouse Gas Reduction and Cost (RC/Reduction and Cost)	RC-1: Details/details of a plan or strategy to reduce GHG emissions. RC-2: Specifications of the target level/the reduction of GHG emissions. RC-3: Reduction of emissions and costs or savings (costs or savings) achieved today as a result of a planned reduction in carbon emissions. RC-4: The cost of future emissions were taken into account in the planning of capital expenditure (CAPEX planning).
Accountability carbon emissions (AEC/Accountability of emission carbon)	AEC-1: Indication of where the board of the committee (or another executive body) has the responsibility for the actions related to climate change. AEC-2: Description of the mechanisms by which the board (or other executive bodies) to review the company's progress on climate change.

Source: (Bae et al., 2013)

Table 2: Summary of regression analysis

Variables	t-value	P-value	Hypothesis	Adj. R^2	F-value
Firm size (X1)	4848	0.000	Accepted	0.553	13.075 (P-0.000)
Profitability (X2)	2135	0.040	Accepted		
Leverage (X3)	2302	0.027	Accepted		
Environmental performance (X4)	−4195	0.000	Accepted		
Moderating effects of media exposure				0.648	8.965 (P-0.000)
X1_M	−2470	0.019	Accepted		
X2_M	−1452	0.0157	Rejected		
X3_M	2482	0.019	Accepted		
X4_M	−0.567	0.575	Rejected		

Source: SPSS output

to other variables beyond this study. The ANOVA test results in Table 2 show that the F value of 13.075 and a significance value of 0.000. The hypothesis testing obtained from the t statistics revealed some interesting findings. The linear regression presents the acceptance of hypotheses 1-4, with environmental performance negatively affected ecological disclosure. The moderated regression supports the role of media exposure as a moderating variable toward firm size and leverage, but not to profitability and environmental performance. The findings would be discussed in the following section.

The study of green accounting emerged as the efforts of accounting academicians to be socially-responsible (Abdullah and Yuliana, 2018). The organization must strive to meet the governing stakeholders' requirements by providing reports, including reporting on social and environmental practices. To satisfy some of the concerns of its stakeholders, the company must pay attention to its environmental problems. Company disclosures are essential instruments for communicating a company's economic, ecological, and social performance. The declaration includes the availability of financial and non-financial information related to organizational interactions with the physical environment and social environment, addressed in the company's annual report (annual report), or a separate social report.

Partially, the statistical hypothesis testing showed that the size of the company affected carbon emission disclosure significantly. The size of the company substantially and positively impacted the carbon emission disclosure, meaning that Islamic-compliant firms would disclose their carbon emission linear to the size of the firms. Small Islamic firms would not directly make them revealed their carbon emission. Galani suggested that more substantial companies might have sufficient resources to pay the cost of production information (gathering and producing information) for users of the annual report (Galani et al., 2011). The results of this study supported the theory that the legitimacy of large enterprises put enormous pressure on environmental problems, increasing

the response to the environment. This study supported several previous studies that firms with larger sizes would be more willing to disclose their carbon emission (Aragón-Correa et al., 2016; Bae et al., 2013; Freedman and Jaggi, 2005; Galani et al., 2011).

Testing hypothesis 2, the authors found the effect of profitability on carbon emission disclosure was significant at 0.040. The profitability positively increased firms' willingness to disclose their carbon emission. These results indicated that the company with a better ability to utilize the assets financially would be more open about its carbon emissions, and otherwise. It is clear that firms with significant profitability needed constant support from stakeholders (Halal, 2001), despite growing concerns provided support to the potentially diminishing returns, should they preferred stakeholders than shareholders (Smith, 2003). However, several studies supported the idea that money contribution could increase the likelihood of social and environmental disclosure (Akbaş and Canikli, 2019; Hermawan et al., 2018; Luo et al., 2013). This study finding was not in line with previous results from Indonesia, which did not find a meaningful relationship between those variables (Prasetya and Yulianto, 2018; Saputro and Basuki, 2019). Profitability was the holy grail of firms' concerns and became an integrated discussion in the strategic planning, process, and its path (Amar et al., 2019; Teece et al., 1997). These focus on money could lead to unethical behavior, deviating from the ideal concept of Islamic firms (Said et al., 2019). The firms identified as Islamic firms must reveal their sharia and ethical consideration in daily activities (Said et al., 2019). These applications would work as the anchor to the Islamic principle in social activities.

The leverage of Islamic-compliant firms positively and significantly increase the tendency to disclose firms' carbon emission by its significant value of 0.027. Firms with specific possession of debts had been long associated with profitability, as working capital required a certain amount of investment from external parties (Alarussi and Alhaderi, 2018). This positive association meant that firms with higher leverage would tend to disclose their carbon emissions, as higher force came with supervision from lenders (Iatridis, 2011). Several investors put a significant emphasis on the green activities of firms and made selections by that information (Griffin et al., 2012). Thus, leverage could act as a potential driver of environmental-friendly companies. CSR initiatives would impact the following degrees of the corporate system: environmental disclosure, policy, influence, and performance. With exposure, corporations would shift the image of internal processes to show applied improvements accross facilities. CEO's commission is to align internal campaigns to create corporate-wide policies and agendas that can push the firms towards its environmental goals. Results deal with determining the effect of environmental initiatives on the situation on the local or domestic standard. Performance presents the collection of key outcome indicators determined by the CSR policy.

This study found an interesting finding, as environmental performance affected carbon emission disclosure negatively, as observed from its t-value of 4195. As a consequence of such an outcome, Islamic-compliant firms would increase their carbon emission disclosure if the environment performance was poor. The reason behind this activity was that the firms would disclose more if they were under scrutiny (Stanny, 2013; Stanny and Ely, 2008). Poor environmental performance needed positive information to push investors' confidence. This finding was against several studies that discovered a positive association between environmental performance and carbon emission disclosure (Clarkson et al., 2008; Dawkins and Fraas, 2011). This finding provided a fresh look into the causality interaction of these two variables.

The initial model revealed an f-value of 13.075, which signify the proposed model, and adjusted R^2 score of 0.553/55.3%. Applying the moderating procedure, this study obtained a significant improvement of model specifications to an F-value of 8.965 and adjusted R^2 of 0.648. This finding implied that media exposure provided a sufficient boost to disclose firms' environmental obedience. The dissemination of information increased the potentiality of firm size, profitability, leverage, and ecological performance toward carbon emission disclosure, and hence put the firms at the constant scrutiny of the stakeholders (Dawkins and Fraas, 2011; Saputro and Basuki, 2019).

This study also tested the potential moderator of media exposure to every exogenous variable. The moderated regression analysis revealed that media significantly and negatively decreased the ability of firm size to affect carbon emission disclosures (H_5 accepted). This finding was unique, as frequently, media would increase the potentiality of big firms to be more open; on the contrary, several studies found otherwise (Färe et al., 1996; Freedman and Jaggi, 2005; Wang et al., 2013). The reason was probably that the big firms were no better than small firms at disclosing their carbon uses, as a study with 16.023 international companies revealed that conclusion (Aragón-Correa et al., 2016). Another finding also discovered that 500 global firms were still reluctant to disclose their carbon emission, despite a significant discovery of relationship (Luo et al., 2013).

This study found two insignificant relationships, as profitability and environmental performance was not the causal predictors of carbon emission disclosure, moderated by media exposure. These findings were different from the first model, which found significant relationships. The reasons were probably the same with the above discovery of media exposure to firm size (Aragón-Correa et al., 2016; Luo et al., 2013), as firms, despite their size, profitability or even environmental performance were reluctant to disclose their carbon emission. Media coverage was not able to push the agenda of openness in terms of its environmental issues. This finding revealed a different contribution to the discussion of the previous study.

Another positive and significant relationship was in the relationship of leverage and carbon disclosure, moderated by media exposure. Media exposure was able to increase the effect of debts on carbon disclosure. Firms with greater leverage were more prone to outside intervention to disclose their activities (Elshandidy et al., 2013; White et al., 2010), especially if external audits were reliable (Iatridis, 2011). The conversation in this topic was in constant debate, as another study found a non-significant effect of leverage and voluntary disclosure (Whiting and Woodcock, 2011). Firms listed in the Malaysian Islamic index displayed a significant portion of the debt in their capitals (Rahman et al., 2010). This

leverage could encourage firms' environmental disclosure as the lenders could perceive it as one of their investment considerations. However, we must be critical upon evaluation of the firms' debt from the Islamic perspective.

The Islamic view of debt is unique. Safeguarding the rights of borrowers is the central tenet, but the sincerity of providing a reprieve or even not collecting it presents as one aspect of Islamic philosophical thinking (Bensaid et al., 2013). This revelation is quite contrary to the principle of debt in the capitalist system. It acts as the foundation of modern finance, which tends to be value-free. Debt is not a media for creating social-class systems but can work as a disciplining tool in society (LeBaron, 2014; Stout, 2016). The discourse between Islamic views and modern life accounting is even sharper on the issue of interest, where there is an Islamic-broad consensus on the prohibition of it (Kamla and Alsoufi, 2015). The conservatives even further called it evil (Zakir, 2009).

The prohibition of interest has further consequences on the Islamic capital market, as it created compatibility issues with the world market (Naughton and Naughton, 2000). Islamic index does not consider interest as the essential aspect in the financial management of firms but as a screening tool for the indexation. The absence of interest evaluation might create a false perception that the Islamic capital market was better off during volatile conditions than its western counterparts (Yusof and Majid, 2007). An exciting finding revealed that the world oil market has close links with capital markets in Muslim countries. It is not surprising because Muslim countries generally possessed abundant oil reservoirs and the dominant player in the oil market (Abdullah et al., 2016; Shahzad et al., 2018). Because the stock selection comes from the sharia commissioner board, the perspectives of legal jurisdiction between countries also differ. Not surprisingly, Islamic indexes in Southeast Asian countries have the same movements as conventional indices (Albaity and Ahmad, 2008). However, companies listed in the Malaysian Islamic index exhibit a substantial debt concentration, above 50% (Rahman et al., 2010). The result of this study further contributes to the ongoing debate on this particular topic.

The company's environmental strategy is a pledge to successfully and efficiently applying natural resource management. The company's environmental policy is a commitment to fair and productive use of natural resources. These efforts serve as an understanding of the nature of the organization in predicting the consequences of global warming through initiatives for energy efficiency and the use of B3 and non-B3 waste, reduction of air emissions, water conservation, biodiversity safety, and attempts to reduce emissions and control environmental impacts. The implication of legitimacy theory on corporate responsibility related to social and ecological issues is the disclosure of the corporation's environmental and social responsibility in its efforts to gain legitimacy where the corporation is located. This legitimacy will secure the firm from the undesired public scrutiny. Credibility will boost the prestige of the company and will eventually influence the valuation of the product. The organization aims to gain trust from the community through the implementation of programs that are in line with community expectations. The primary application is by introducing corporate social responsibility policies, applying environmental accounting, and presenting it both in the annual report and in the report on sustainability. They form a piece of information for the investors to elaborate on the company performance and its concordance to the community values.

To prevent illegitimacy, companies have to change organizational management by taking financial and social considerations into account in the form of corporate social responsibility, which is a straight line between the company and the stakeholders' agendas that affect each other either directly or indirectly. Companies need to ensure the congruence of corporate priorities with stakeholder expectations (legitimacy theory), for example, by entering into social contracts in the form of strengthening corporate social responsibility policies. On the practical level, corporate social responsibility turns out to have strategic content, seen from the corporate interests that contain both social and economic motives. It could also boost the efficiency of the company, both in social and financial performance. Overall, this study provided a fresh take on the experience of Islamic-compliant firms in Indonesia.

5. CONCLUSIONS AND SUGGESTIONS

This study provided fresh evidence on the issue of carbon emission disclosure while taking into account the effect of media exposure in the Jakarta Islamic Index of Indonesia stock exchange. Some predictor variables were able to predict the carbon disclosure with a mixed direction of the relationship. Furthermore, media coverage was only significantly able to modify the association of firm size and leverage, but not on the profitability and environmental performance. These studies found conflicting results with previous studies. They could present as a unique contribution to the discussions of in the study of environmental accounting. This article investigated how Islamic-compliant firms show their daily operation in ecological settings. They have to be more transparent in their activities as the sharia jurisprudence advocated the importance of protecting the self, others, and environment in the daily activities. Following the religious regulation will expose the linear relationship between religion and environmental conservation, supporting the establishment of full-fledged Islamic-compliant firms.

The discussions on this topic are undoubtedly still minimum—moreover, the Islamic-compliant firms listed in the Jakarta Islamic Index of Indonesia provided a unique take on the subject. This study suggested an expansion of the discussion of this topic, with a further investigation as to why environmental performance could negatively affect carbon disclosure, clarifying the specific findings of this study. Measurement of environmental performance, employing the Indonesian government standard, required a thorough examination. Further researches with other global methods would amplify the generalization of the findings.

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