Carbon Emissions Disclosure, Market Reaction, and Dividend Policy

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ABSTRACT: This research aims to provide a conceptual strategy for Indonesian companies to address climate change by minimizing carbon emissions to improve the quality of life, and for the society to provide positive feedback. Furthermore, it examines the ability of the dividend policy to moderate the relationship between carbon emissions disclosure to investor reaction. The result showed that carbon emission, market reaction, and dividend policy tend to affect the reputation of businesses.

1. **INTRODUCTION**

Currently, global warming is one of the important issues that are publicly considered due to the increase in geothermal heat and seawater. One of the major causes of this unhealthy consequence is carbon emissions. According to the World Resource Institute (WRI), Indonesia is among the top ten countries that contribute to the production of the largest carbon emissions in the world. In 2012 it was at number 6 and 8 in 2017 ([www.wri.org](http://www.wri.org)). Indonesia has the longest coastline in the world therefore, it tends to receive the tremendous effects of global warming. Based on the United Nations Report on climate change and global warming, the average global temperature in 2015-2019 was called the 'hottest' path, with 2019 as the 'hottest' for the past five years (www.cnnindonesia.com). Furthermore, the climate is expected to rise by 1.1 degrees Celsius above the pre-industrial era (1850-1900) and warmer by 0.2 since 2011-2015.

In accordance with these global issues, the Indonesia government established RI Law No. 17 of 2004 concerning the ratification of the Kyoto Protocol to the United Nations Framework Convention on Climate Change. Indonesia also signed a Paris agreement in 2015. This study aimed to determine the response of companies in addressing climate change by minimizing carbon emissions in order to maintain the quality of life and for people to possess a positive view of their presence. Furthermore, after the implementation of RI Law No. 17 of 2004, Indonesian companies provided carbon emissions information in their annual reports (Yuztitya and Lindrianasari, 2014). Conversely, the company's life cycle also depends on its finances, which includes its payment policy in the form of dividends.

1. **RESEARCH ISSUE**

This is a conceptual research that addresses issues related to carbon emissions. It is a continuation of previous research which showed that Indonesian companies responded to the government policies to disclose their carbon emissions and dividend policy to strengthen their relationship with the market. This research intends to provide investigation results and empirical evidence of the responsibility of Indonesian companies in creating sustainable development.

1. **THEORETICAL FRAMEWORK**

Many studies have been conducted on environmental issues using the legitimacy theory (Tsang (1988), Linblom (1994), Gray (1995), and Guthrie & Parker (1989)). According to Deegan, Robin, and Tobin (2002), a company is legitimate when there were similarities between public expectations and its outcomes. Tsang (1988) defined legitimacy as a theory of perception that describes a company's general-purpose, operating methods, and organizational output in accordance with social norms and values. Furthermore, a company is legitimate when it carries out activities whose impact is relevant to the expectations of the community and environment. A company’s legitimacy is obtained by revealing the carbon emissions generated from environmental activities to obtain a positive image by the community. Regarding social contract, it agrees to take various desired social actions for objective approval and other rewards, which ultimately guarantees continued existence (Guthrie and Parker, 1989).

In addition, this research utilized the signaling theory to encourage company executives to convey adequate information to potential investors to increase their stock price (Ross, 1977). Companies that provide good information are distinguished from those without encouraging news, as they tend to inform the market on their conditions, thereby, losing public trust (Wolk and Tearney in Dwiyanti, 2010). Environmental issues are important in accounting as a consequence of information disclosure, which has the ability to affect its reputation and future business sustainability (Griffin and Sun 2012). Hackson and Milne (1996) stated that one of the reasons for environmental disclosure is to enhance the company's reputation. In addition, there is an effect of environmental disclosure on the market reaction (Belkaoui and Karpik (1989), Patten (1990), Anderson and Frankle (1980)). Belkoui and Karpik (1989) stated that environmental activities disclosure contains economic and social consequences, which provides information on the role and function of the company amid the environment and society, thereby reducing misunderstanding

1. **DISCUSSION AND IMPLICATION**

Environmental disclosure contains information that facilitates investor's informational uncertainty (Ulmann (1985), Belkaoui (1976), Anderson and Frankle (1980), (Noor, 2011), Hall & Rieck (1998), Rankin et al. (2011)). According to previous studies, companies with high social responsibility through disclosure of carbon emissions increase legitimacy and transactions, which in turn increases market reactions reflected in abnormal returns. Therefore, the market responds positively to the disclosure of information related to carbon emissions.

According to the IPCC report, accounting needs to be consciously/unconsciously involved in environmental issues to maintain an increase in temperature by 1.5˚C, which increases investment in low-carbon energy technology and energy efficiency. The implementation of environmental management showed that companies are committed to monitoring, managing, controlling, measuring, and reporting its environmental performance on carbon emissions (Rankin et al., 2011). In Indonesia, environmental management need company commitment to voluntarily disclose its carbon emissions.

Companies that disclose their carbon emissions tend to avoid threats such as increased operating costs, a decrease in demand, reputational risk, legal proceedings, and penalties (Berthelot and Robert, 2011). Furthermore, this information is useful for the market because it enables people to determine the amount of carbon gas emitted and how the company's managers utilize, receive, and process carbon emissions strategically in order to control its risks and financial impacts.

Conversely, companies need to determine the number of dividends distributed because a decrease or increase is often a signal to investors regarding the company's prospects for future growth. In addition, investors are able to indirectly estimate a company's value o through a dividend policy set. Expenditures on environmental costs do not affect dividend policies provided by the company. Therefore, investors do not have to worry when actions are taken to minimize carbon emissions (Rakatomavo, 2012).

The amount of dividends to be distributed to shareholders is determined by the policy of each company. When the dividend paid is high, the stock price tends to be high, and the company's value increases. Furthermore, a company's ability to pay dividends is closely related to its profit, which increases or decreases its value. Gordon and Lintner (1959) stated that a company's value is maximized by a high dividend payout ratio because investors assume that the risk of dividends is not as significant as the increase in capital costs.

The research provided practical, and policy contributions, which explained companies in Indonesia respond well to the policies related to the reduction of carbon emissions, and carried out regulations which provided major influence to the country.

In conclusion, this research implies the importance of government intervention to force companies to reduce carbon emissions and the use of dividend policy to strengthen its relationship with market reaction.

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