CHAPTER 11

THE EFFECT OF ENVIRONMENTAL, SOCIAL, GOVERNANCE, AND CONTROVERSIES ON FIRMS’ VALUE: EVIDENCE FROM ASIA

Anna Melinda and Ratna Wardhani

ABSTRACT

With the increasing understanding of stakeholders on sustainability aspects for the business, companies are nowadays paying more attention to environmental and social issues. This study aims to examine the relationship between Environmental, Social, Governance (ESG) Index and firms’ value. Moreover, this study also examines how the controversy score influences the company’s value. The authors employ a dataset of 1,356 companies from 22 countries in Asia which representing the Asian market from 2014 to 2018. This study shows that ESG index score and controversy score are statistically significant, affecting the firms’ value, measured by Tobin’s Q. From the individual tests, the findings of this study indicate that ESG-environmental, ESG-social, and ESG-governance, individually affect the firms’ value. This study suggests that providing disclosure on ESG aspects is essential, not only to increase company value but also to show the company resilience and sustainability. On the other hand, ESG controversy score surprisingly indicates a positive relationship with the company value. The result implies that controversies provide a positive signal to the investor because controversies could provide a signal to the public of companies’ willingness to have transparency and accountability.
Keywords: Environmental, Social, Governance; ESG controversies; firm value; sustainability;

JEL classifications: G34; M4; O16

1. INTRODUCTION

In the past few years, the trend of sustainability reports is increasingly growing throughout the world. In 2000, there were only a total of 48 organizations that disclosed their sustainability reports, and by the end of 2017, the number of organizations that revealed their sustainability reports had increased to 12,075 organizations from around the world (GRI, 2018). This amount illustrates the increasing commitment of global companies to the issue of sustainability.

The companies’ commitment to sustainability is outlined in the disclosures in the Sustainability Report. The sustainability report presents a series of information relating to activities or activities carried out by the company related to past, present, and future environmental and social issues as well as information about the past, present, and future financial implications resulting from decisions and corporate environmental management actions (Berthelot et al., 2003).

Some companies disclose sustainability reports as a signaling mechanism to gain a good reputation and to gain legitimacy from stakeholders by integrating the focus of attention on social and environmental issues into business operations and their interactions with stakeholders (Wood, 2010). According to Epstein (2008), the environmental performance focuses on long-term values. Environmental performance allows companies to maintain the sustainability of the resources they use so that these resources can still be enjoyed in the future. Environmental performance can also be carried out as one of the company’s strategies to create a corporate image that is good and environmentally friendly in a consumer perspective (Darley, 2012).

As for investors, Verecchia (1983) argues that from an economic perspective, companies will disclose the information if the information can increase the value of the company. Clarkson’s (2008) study concluded that companies have performed environmental performance or activities well would voluntarily disclose their performance to the public. The company discloses because the disclosure has an impact on the company’s reduced cost of equity capital, or in other words, affects increasing company value.

To assess the performance of the sustainability commitments of companies, investors, or stakeholders often use measurements of economic, environmental, and social performance based on the disclosure of the Sustainability Report. Thomson Reuters has developed the Environmental, Social, Governance (ESG) Index and controversies. The indices measure the company performance related to the environment, social, and governance based on information from the company’s sustainability report. The ESG index consists of three
assessment pillars, namely ESG Environmental Score, ESG Social Score, and ESG Governance Score. Also, there is an ESG Controversy index that gives companies value for the amount of negative media coverage related to ESG issues.

Several previous studies have shown the relationship between non-financial performance, such as social, environmental, and governance performance on several consequence variables, such as company value, financial performance, stock returns, and capital costs. Plumblee (2015) examined the relationship between firm value and the value of voluntary environmental disclosure quality through its association with cash flows and equity cost components. She found that both items were positively and significantly related to firm value. Other research shows that Corporate Social Responsibility (CSR) performance that is better associated with increasing financial performance of the company (Malik, 2015). Fombrun and Shanley (1990) argue that CSR enhances the company’s reputation, which leads to an increase in the company’s good reputation and better performance in the long run. Research conducted by Fatemi, Glaum, and Kaiser (2018) examines the influence of ESG performance on firm value in the United States. The research indicates that there is a positive relationship between the company’s ESG performance and company value. Previous studies are generally carried out in the context of one country or developed countries.

This study aims to examine the influence of environmental, social, and corporate governance performance, as well as company controversies on firm value. This study uses a sample from listed companies in Asia and uses the measurement of ESG from the Thomson Reuters ESG performance appraisal index. This study aims to investigate how the influences occur in countries in Asia that have different growth rates and also different environmental conditions. This study contributes to the literature by providing empirical evidence related to the relationship between the company’s ESG performance and company value. This study uses the criteria of the three ESG index pillars, namely environmental, social, and governance performance, and this study also uses the measurement of ESG controversy index. Besides, this study takes a broader sample of data using companies in Asia in the period 2014–2018. More extensive sampling allows us to find out how the effects that occur with different legal regulations, conditions, and characteristics of different countries.

Previous studies related to the topic of ESG, and the values of the company were carried out in the territory of developed countries. This study is interesting because this research is evidence that with diverse characteristics in the Asian region, the same phenomenon also occurs. Companies have begun to try to improve the performance of ESG. They look at the benefits that they might get by applying sustainability aspects or even looking at the opportunity costs that might arise if they did not implement it. From the regulator perspective, Elmassri et al. (2016), as cited in Aboud & Diab (2019), stated that government should use research as analytical material for implementing regulation regarding required disclosure. This study could contribute by providing insight on the requirement of ESG disclosure regulation.
2. THEORIES, RELATED LITERATURE, AND HYPOTHESES DEVELOPMENT

2.1. Theories and Related Literature

2.1.1. Legitimacy Theory
Legitimacy theory states that management can influence public perceptions in general toward the company. This theory implies that the company mostly controls a legitimate act. Efforts to manage legitimacy can take several forms. Companies can start from changing activities so that they are consistent with the social perceptions of the community so that they can influence people’s perceptions and judgments of the company.

Lindblom (1994) in O’Donovan (2000) identified four forms of legitimacy strategies that companies can adopt as an effort to manage legitimacy in the environment. The four types of strategy are: (1) provide education to stakeholders about the company’s intentions on environmental issues; (2) change the perceptions stakeholders regarding company concerns about environmental issues; (3) transfer of issue to manipulate stakeholder attention to current environmental issues; and (4) trying to change the expectations of external parties to company performance. Lindblom (1994) also states that to obtain legitimacy, companies need to communicate well with various parties. Therefore, the existence of environmental disclosures in reports published by the company can be one form of response or concern of the company to environmental issues that occur in the community. This disclosure is made to gain legitimacy in its operational environment and be able to create harmony with public perceptions.

2.1.2. Signaling Theory
Signaling theory departs from the research of Akerlof (1970) regarding asymmetric information. The theory assumes that the issuing firms’ managers know more about the quality of their firms than outside investors. With imperfect information, investors cannot distinguish between high-quality firms and low-quality firms. Hence, high-quality firms choose to underprice their new issues to signal their real value. Akerlof’s research was later developed by Spence (1978) regarding Signaling Theory. Spence stated that the purpose of reporting carried out by the company was to inform analysts and investors about the value of the company. The reporting is done by managers who have trust in the quality of the company, considering the costs that will occur to do signaling will be higher in companies that have poor quality (Scott-Phillips, Kirby, & Ritchie, 2009).

The manager does signaling because there is information that is only known by the company, and he believes that the information is relevant and useful to disclose. Therefore, the manager discloses the information because external parties do not know it. The disclosure aims to convince external parties of the performance or capabilities of the company that is not the same as the conditions of other companies in an industry. Companies make a signal to investors by providing certain information to show that they are better than other companies in the market to attract investments and enhance a favorable reputation (Verrecchia,
Based on previous studies, voluntary disclosure has relevance to company value and also the cost of equity (Hamrouni, Miloudi, & Benkraiem, 2015). Rachmawati, Utama, Martani, and Wardhani (2019) also stated that companies can provide a capital market benefit by giving a positive signal to creditors and or investor through voluntary disclosure. Sellami and Hlima (2019) showed that voluntary demand for sustainability reporting assurance by French companies is associated with lower information asymmetry.

2.1.3. Previous Studies on ESG

ESG is part of the company’s non-financial indicators that cover issues of sustainability, ethics, and corporate governance. ESG uses these factors to evaluate companies and countries about the extent of their sustainability aspects (ROBECO Institutional Asset Management, 2018 in Amel-Zadeh, 2018). The ESG performance score is the average of all assessment scores of each ESG pillar and is the company’s sustainability performance. The ESG score is divided into three pillars, namely environmental, social, and governance, each of which consists of several categories. The ESG score reflects the company’s performance along with its effectiveness based on the information published to the public. The higher the ESG score, the better the ESG performance of the company.

**Environmental Pillar.** This has three subcategories, namely resource use, emission, and innovation. Environmental factors include the contribution companies, or governments make to climate change through greenhouse gas emissions, along with waste management and energy efficiency. In the calculation, all categories within the environmental pillar also based on companies in the industrial group made by Thomson Reuters.

**Social Pillar.** The company’s social pillar has several subcategories, namely labor (workforce), human rights, product responsibility, and community. In the calculation, all categories within the social pillar also based on companies in industrial groups made by Thomson Reuters.

**Governance Pillar.** The corporate governance pillar has several subcategories, namely management, shareholders, and CSR strategy. In the calculation all categories within the social pillar also based on companies in industry groups made by Thomson Reuters.

**Controversies Score.** In addition to ESG, which consists of three pillars, Thomson Reuters also developed a score called the controversy score as part of ESG. The ESG controversy enables institutional investors to analyze significant social, environmental, and corporate governance impacts by identifying company involvement in the main ESG controversy, compliance with international norms and principles, and assessing company performance concerning these norms and principles. The ESG controversy is designed to provide a timely and consistent assessment of ESG-related controversies involving public companies. The evaluation framework is designed to be consistent with the international norms represented in a broad range of widely accepted global conventions. The ESGCon score provides a thorough evaluation of the company’s ESG performance based on the information reported in the ESG pillar with an overlay of
ESG controversies taken from global media. The main objective of this score is to
discount the ESG performance score based on negative news from the media. The
ESGCon score is calculated as the weighted average of the two-component scores
per fiscal period, with the recent controversy reflected in the most recent complete
period. The ESG Controversy Category Score is calculated based on 23 ESG
controversy topics and measures the company’s exposure to ESG controversies
and adverse events reflected in global media. In one year, if a scandal occurs, the
companies involved will be punished, and this will affect their overall ESGCon
score and assessment. The impact of these events can still be seen in the follow-
ing year if there are new developments related to adverse events, such as lawsuits,
ongoing legal disputes, or fines. All new media material was captured when the
controversy continued.

There has been a considerable amount of prior research related to ESG. 
Plumpee (2015) studied the relationship between voluntary disclosure and the
value of the company. The research uses companies in the United States. The
results of the study found that disclosure significantly had a positive effect on
firm value. The study also found that the effective future cash flow component
was very significantly related to the quality of disclosure. Lima and Souza (2011)
studied the relationship between CSR and firm value and financial performance
of companies in Brazil in 2001–2006. The results of the study show that CSR can
damage the value of the company in the context of Brazil because it found a sig-
nificant negative correlation between CSR and company value. In addition, there
is a neutral relationship that characterizes the reciprocal effect between CSR and
the company’s financial performance.

Deswanto and Veronica (2018) studied on the association between disclo-
sure of environmental information and financial performance, environmental
performance, and corporate value using a sample of 211 companies listed on
the Indonesia stock exchange in 2012–2014. The results of the study concluded
that financial performance does not affect the level of environmental disclosure.
Besides, research also shows that environmental performance has a positive effect
on disclosure of environmental information, and disclosure of environmental
information does not affect company value and does not mediate the influence
of financial performance and environmental performance on firm value. Using
Indonesian context, Setiadi, Rahmawati, Suhardjanto, and Djuminah (2017)
also document a significant positive effect of environmental disclosure on firm
value. Purnomo and Widianingsih (2012) showed that environment performance
has a positive effect on financial performance and CSR disclosure is not able
to strengthen the influence of environmental performance on financial perfor-
manace. Suhardjanto, Purwanto, Sari, and Setiany (2018) conducted a study on
the relationship between corporate governance and social disclosure of the hos-
pitality companies in South East Asia. Their study shows that corporate govern-
ance measured by the size of Board of Commissioner, managerial ownership, and
institutional ownership have positive effect on social disclosure.

Malarvizhi and Matta (2016) conducted study on the association between
environmental disclosure and firm performance in India. They also document
that there are no significant association between the level of environmental
disclosure and firm performance. Their result indicates that companies disclose the environmental information notwithstanding of their financial performance to sustain in the global environment. Another study by Haninun, Lindrianasari, and Denziana (2018) also shows that environmental disclosure positively affects financial performance.

Aboud and Diab (2018) in their research on the impact of disclosure of social information, environment, and corporate governance on the value of companies in Egypt using a sample of 100 companies listed on the stock exchange (EGX100) in 2007–2016 found that companies listed in the ESG index have a higher corporate value, and there is a positive relationship between higher company rankings in the index and company value as measured by Tobin’s Q. Aouadi and Marsat (2018) studied whether ESG performance and controversy are essential for company value, using a sample of data from 4,000 companies and 58 countries from 2002 to 2011. The study found that ESG controversies did not have a direct effect on firm value, while interaction shows a significant positive relationship. Based on this evidence, the study seeks to explore the channels where corporate social performance (CSP) can increase market value. Analysis using separate sample shows that higher CSP scores impacting market value only apply to companies with high attention, larger companies, better performing, located in countries with greater press freedom, and having a reputation better social company. Thus, the findings of the study provide new insights into the role of company visibility in which companies can take advantage of their CSP. The research conducted by Yoon, Lee, and Byun (2018) showed that ESG performance positively significant related to firm value in Korea, using 705 companies listed on the Korea Stock Exchange during 2010–2015. This result also shows that ESG theory has a positive relationship affecting company value in line with previous research conducted in developed countries.

2.2. Hypotheses Development

Previous research conducted by Fatemi et al. (2018) has identified the influence of environmental, social, and corporate governance performance on increasing the value of companies in the United States. This study adopted the research method to look at the impact of ESG performance on the value of companies in Asia. Also, this study adds ESG performance that is not included in previous studies, namely ESG controversies.

The basic theory used to develop hypotheses about how ESG performance can influence company value is legitimacy theory, signal theory, and resource-based theory. Legitimacy theory states that management can influence public perceptions in general toward the company. Efforts to manage legitimacy can take several forms. Companies can start from changing activities so that they are consistent with the social perceptions of the community so that they can influence people’s perceptions and judgments of the company.

Lindblom (1994) in O’Donovan (2000) identified four forms of legitimacy strategies that companies can adopt as an effort to manage legitimacy in the environment, namely (1) trying to educate stakeholders about the company’s intentions
on environmental issues; (2) trying to change perceptions stakeholders regarding company concerns about environmental issues; (3) transfer of issues to manipulate stakeholder attention to current environmental issues; and (4) trying to change the expectations of external parties to company performance. Lindblom (1994) also states that to obtain legitimacy, companies need to communicate well with various parties. Therefore, the existence of environmental disclosures in reports published by the company can be one form of response or concern of the company to environmental issues that occur in the community to gain legitimacy in their operational environment and be able to create harmony with public perceptions.

The manager does signaling because there is information that is only known to the company, but it is believed that the information is relevant and useful to disclose. Therefore, the manager discloses the information because external parties do not know it. The disclosure aims to convince external parties of the performance or capabilities of the company that is not the same as the conditions of other companies in an industry. Signals are given so that investors and analysts can provide an assessment based on the actual conditions of the company and not as low as companies with poor performance because they can harm managers.

Signaling can be done in various ways, both from audit quality, as well as policies taken by companies such as accounting policies, dividend policies, and others (Scott-Phillips et al., 2009). Moreover, voluntary disclosure is also one of the research materials related to the relevance of the company. Based on previous studies, voluntary disclosure has relevance to company value and also the cost of equity (Hamrouni et al., 2015).

Management of the resources that are owned is an important thing done by companies to realize sustainability. Newbert’s research (2008) states that there is a positive relationship between the management of company resources and company performance. The resource-based theory focuses on how to measure performance and will be used in evaluating the competitiveness of companies based on resources owned by the company (Barney, 1991).

By using these three theories, it is expected that there is a positive correlation between ESG performance and the increase in firm value (Aboud & Diab, 2018; Fatemi et al., 2018; Plumlee, 2015; Yoon et al., 2018). The research conducted by Fatemi et al. (2018) examined the relationship between ESG and company value with disclosure as moderation in the United States during 2011–2016. The study concluded that ESG performance could increase the value of the company, and ESG concerns can reduce the value of the company. Aboud and Diab (2018) in their research on the impact of disclosure of social, environmental, and corporate governance information on the value of companies in Egypt using a sample of 100 companies listed on the EGX100 in 2007–2016. The study specifically examines the relationship between disclosure of information to company value. The study found that companies listed in the ESG index had a higher corporate value and that there was a positive relationship between higher company rankings in the index and company values measured by Tobin’s Q. Research conducted by Bohyun Yoon, Jeong Hwan Lee, and Ryan Byun (2018) entitled whether ESG’s performance can increase company value, taking a sample of 705 companies listed on the Korea Stock Exchange during 2010–2015. This study concluded that
excellent ESG performance was positively and significantly related to firm value in Korea. In connection with the result of previous research, this study proposes the following hypotheses:

H1a. Composite ESG performance of the company has a positive impact on firm value.

H1b. ESG performance of the company total positive impact on company value.

The value of ESG Environmental Score reflects the environmental performance of the company, including resource use, emissions, and innovation. The higher the performance value of the ESG environment, the better the environmental performance of the company in the environmental field. Many studies also argue that environmental performance increases the company’s image from the company, increases revenue, reduces costs, and show positive abnormal stock returns from announcements of environmental performance, which sends positive signals to investors (Jacobs et al., 2010; Klassen & McLaughlin, 1996; Yadav et al., 2015). This is in line with the legitimacy theory that relates to how management seeks to control people’s perceptions by improving or enhancing the company’s image; one way is to disclose information on the company’s environmental performance. The company’s environmental performance is related to how companies as organizations affect the ecosystem. Good management of resources will have an impact on high performance (Newbert, 2008). Previous research conducted by Aboud and Diab (2018) stated that there was a significant positive effect between corporate environmental performance on firm value. Based on the explanation, this study proposes the following hypothesis:

H2. Company environmental performance has a positive impact on company values.

The ESG Social Score value reflects the social performance of the company covering several components, such as workforce, human rights, product responsibility, and community. The higher the value of social ESG performance, the better the company’s performance in the social field. Later, more and more people have demanded that companies minimize the negative impact of company activities (Susilowati, 2013). The company not only has a role as a business entity that pursues financial success but also as a good citizen (Visser et al., 2010). This concept confirms that companies must expand their responsibilities in social and environmental aspects. The company has rights, obligations, and responsibilities to the community, as well as other citizens.

Information on ESG performance the company reported and disclosed social sustainability reports could be one of the ways the company manages or improves the company’s reputation. The company’s reputation is one of the things that will have implications for the value of the company. This is related to legitimacy theory, where legitimacy becomes essential for companies to
ensure long-term welfare. The general view agrees that social responsibility can increase long-term benefits and support the continuity of the company (Ho, 2010 in Pyo & Lee, 2013). Previous research conducted by Aboud and Diab (2018) stated that there was a significant positive effect between social performance on firm value. The study confirms the research conducted by Fatemi et al. (2018), showing that the power of ESG increases company value and concerns about ESG will reduce the value of the company. Based on the explanation, this study proposes the following hypothesis:

**H3.** Corporate social performance has a positive effect on company value.

The value of the ESG Governance Score reflects the governance of the company covering management, CSR strategies, and shareholders. The higher the ESG value for governance, the better the performance of governance carried out by the company. Good corporate governance can cause stock prices to double because investors anticipate that fewer cash flows will be diverted and most company profits will return to them as interest or dividends (Jensen & Meckling, 1976; La Porta et al., 2002). Second, good corporate governance can reduce the expected ROE as far as reducing the costs of shareholder monitoring and auditing, which leads to lower capital costs (Shleifer & Vishny, 1997).

By demonstrating the performance of good corporate governance in the sustainability report, this can signal investors about the condition of the company. This is in line with the signaling theory; the disclosure is carried out by managers who have confidence in the quality of the company, considering the costs that will occur to signaling will be higher for companies that have poor quality (Scott-Phillips et al., 2009). Previous research conducted by Aboud and Diab (2018) stated that there was a significant positive influence between good corporate governance performance on company value, where companies that have higher governance performance tend to have higher corporate values. Based on the explanation, this study proposes the following hypothesis:

**H4.** The performance of corporate governance has a positive impact on company values.

ESG Value the Controversy reflects negative media coverage of a company’s involvement in controversial ESG issues. The previous argument states that the higher the performance value of the ESG illustrates the better performance of the company. In this case, the argument will be the opposite in which the ESG value of controversy has an interpretation of the value that is contrary to the ESG performance value. The higher the value of the ESG controversy of a company, the worse the company’s ESG performance will be. With such poor performance, it will affect the reputation of the company where there is negative reporting in the media for the company’s performance. The company’s reputation will affect the value of the company. This is related to legitimacy theory; namely, management seeks to control people’s perceptions by building
a good reputation or corporate image (Lindblom, 1994). Legitimacy is essential for companies to ensure their long-term welfare. Suchman (1995) defines legitimacy as a general perception or assumption that the actions of an entity are desirable, appropriate, or appropriate in several systems of norms, values, and beliefs. When it is considered that it lacks acceptable legitimacy, companies experiencing controversy will face challenges (Palazzo & Scherer 2006). Based on this theory, it can be assumed that the ESG controversy is related to a decrease in firm value (Adams 2002; Fombrun, 1996 in Brammer & Pavelin, 2006; Fombrun & Shanley, 1990; Orlitzky, 2013; Weigelt & Camerer, 1988).

Kang and Kim’s (2013) research also shows that companies lose market share if there are negative CSR news articles about them in the previous year. Besides, Kruger’s research (2014) shows evidence that investors have a strong negative response to negative reporting on ESG. Their response is robust when the information concerns employees and the environment (Chollet & Sandwidi, 2013), or the community. Likewise, Oikonomou et al. (2012) confirm that CSR is negatively related to systematic risk, and mainly that CSR concerns are associated with higher systematic risk. Based on the explanation, this study proposes the following hypothesis:

\[ H5. \text{Company controversy has negative effects on company values.} \]

### 3. RESEARCH METHODOLOGY

#### 3.1. Data and Sample

This study uses several data sources. ESG data were taken from Thomson Reuters. This study also uses financial reports and annual reports issued by listed companies in Asia to see the extent of disclosure of information that has been done by the company and whether there are environmental components in the disclosure of sustainability reports included in the disclosure of the information. Financial data were taken from the Data Stream database.

In this study, the population used is all countries in Asia. However, from all these countries there are only 22 countries of origin of companies that have an ESG assessment from Thomson Reuters. This study requires an environmental performance score indicator obtained from the ESG score from Thomson Reuters. Thus, the sample used in this study is a public company listed on each country’s stock exchange and has an ESG score assessment from Thomson Reuters. The sample selection criteria are as follow:

1. Companies are listed on each country’s stock exchanges in Asia from 2014 to 2018.
2. Listed companies that have ESG & Controversies score assessments by Thomson Reuters.
3. Companies in the non-financial industry (banks, non-bank financial institutions, securities companies, insurance, mutual funds, etc.).
4. Companies with positive equity values.
Based on the sample selection criteria, the research sample and observation data are presented in Table 1. Table 2 presents the distribution of the sample across countries.

**Table 1.** Research Sample.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>2014 Total</th>
<th>2014 %</th>
<th>2015 Total</th>
<th>2015 %</th>
<th>2016 Total</th>
<th>2016 %</th>
<th>2017 Total</th>
<th>2017 %</th>
<th>2018 Total</th>
<th>2018 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All listed companies in Asia</td>
<td>30,982</td>
<td>100</td>
<td>29,500</td>
<td>100</td>
<td>29,146</td>
<td>100</td>
<td>29,036</td>
<td>100</td>
<td>29,635</td>
<td>100</td>
</tr>
<tr>
<td>Companies with ESG Score by Thomson Reuters</td>
<td>−29,778</td>
<td>96.11</td>
<td>−28,223</td>
<td>95.67</td>
<td>−27,800</td>
<td>95.38</td>
<td>−27,637</td>
<td>95.18</td>
<td>−27,975</td>
<td>94.39</td>
</tr>
<tr>
<td>Companies in the financial industry</td>
<td>−176</td>
<td>0.56</td>
<td>−192</td>
<td>0.65</td>
<td>−210</td>
<td>0.72</td>
<td>−217</td>
<td>0.74</td>
<td>−261</td>
<td>0.88</td>
</tr>
<tr>
<td>Companies with negative equity values</td>
<td>−4</td>
<td>0.01</td>
<td>−6</td>
<td>0.02</td>
<td>−8</td>
<td>0.02</td>
<td>−8</td>
<td>0.02</td>
<td>−7</td>
<td>0.02</td>
</tr>
<tr>
<td>Sample</td>
<td>1,024</td>
<td>3.30</td>
<td>1,079</td>
<td>3.65</td>
<td>1,128</td>
<td>3.87</td>
<td>1,176</td>
<td>4.05</td>
<td>1,392</td>
<td>4.69</td>
</tr>
</tbody>
</table>

**Table 2.** Distribution of Sample across Countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Firms</td>
</tr>
<tr>
<td>Bahrain</td>
<td>2</td>
</tr>
<tr>
<td>China</td>
<td>197</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>212</td>
</tr>
<tr>
<td>India</td>
<td>85</td>
</tr>
<tr>
<td>Indonesia</td>
<td>34</td>
</tr>
<tr>
<td>Israel</td>
<td>10</td>
</tr>
<tr>
<td>Japan</td>
<td>387</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>1</td>
</tr>
<tr>
<td>Korea</td>
<td>107</td>
</tr>
<tr>
<td>Kuwait</td>
<td>8</td>
</tr>
<tr>
<td>Malaysia</td>
<td>48</td>
</tr>
<tr>
<td>Oman</td>
<td>4</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2</td>
</tr>
<tr>
<td>Philippines</td>
<td>18</td>
</tr>
<tr>
<td>Qatar</td>
<td>8</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>8</td>
</tr>
<tr>
<td>Singapore</td>
<td>39</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1</td>
</tr>
<tr>
<td>Taiwan</td>
<td>120</td>
</tr>
<tr>
<td>Thailand</td>
<td>32</td>
</tr>
<tr>
<td>Turkey</td>
<td>23</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>1,356</td>
</tr>
</tbody>
</table>
3.2. Research Model

The research model used in this study is a panel data regression model to test the research hypothesis that sees the effect of independent variables on the dependent variable. Model 1 is used to test $H1a$. While Model 2 is used to test $H1b$, Model 3 is used to test $H2$, Model 4 is used to test $H3$, Model 5 is used to test $H4$, and Model 6 is used to test $H5$. The models are as follows:

**Model 1.** Tobin's $Q_{it} = \alpha_{it} + \beta_1ESG_{it} + \beta_2SIZE_{it} + \beta_3INDUS_{it} + \beta_4GROWTH_{it} + \beta_5LEV_{it} + \beta_6ROA_{it} + \beta_7ROE_{it} + \beta_8CGOV_{it} + \epsilon_{it}$

**Model 2.** Tobin's $Q_{it} = \alpha_{it} + \beta_1ESGCOMB_{it} + \beta_2SIZE_{it} + \beta_3INDUS_{it} + \beta_4GROWTH_{it} + \beta_5LEV_{it} + \beta_6ROA_{it} + \beta_7ROE_{it} + \beta_8CGOV_{it} + \epsilon_{it}$

**Model 3.** Tobin's $Q_{it} = \alpha_{it} + \beta_1ENV_{it} + \beta_2SIZE_{it} + \beta_3INDUS_{it} + \beta_4GROWTH_{it} + \beta_5LEV_{it} + \beta_6ROA_{it} + \beta_7ROE_{it} + \beta_8CGOV_{it} + \epsilon_{it}$

**Model 4.** Tobin's $Q_{it} = \alpha_{it} + \beta_1SOC_{it} + \beta_2SIZE_{it} + \beta_3INDUS_{it} + \beta_4GROWTH_{it} + \beta_5LEV_{it} + \beta_6ROA_{it} + \beta_7ROE_{it} + \beta_8CGOV_{it} + \epsilon_{it}$

**Model 5.** Tobin's $Q_{it} = \alpha_{it} + \beta_1GOV_{it} + \beta_2SIZE_{it} + \beta_3INDUS_{it} + \beta_4GROWTH_{it} + \beta_5LEV_{it} + \beta_6ROA_{it} + \beta_7ROE_{it} + \beta_8CGOV_{it} + \epsilon_{it}$

**Model 6.** Tobin's $Q_{it} = \alpha_{it} + \beta_1CONTRO_{it} + \beta_2SIZE_{it} + \beta_3INDUS_{it} + \beta_4GROWTH_{it} + \beta_5LEV_{it} + \beta_6ROA_{it} + \beta_7ROE_{it} + \beta_8CGOV_{it} + \epsilon_{it}$

**Explanation:** Tobin’s $Q$ – firm value measured by Tobin’s $Q$; ESG – ESG score (ESG from three pillars); ESGCOMB – ESG combined score (ESG & controversies); ENV – ESG score, environmental pillar; SOC – ESG score, social pillar; GOV – ESG score, governance pillar; CONTRO – Controversies score; SIZE – firm size; INDUS – industry classification; GROWTH – firm growth; LEV – leverage; ROA – return-on-asset; ROE – return-on-equity; CGOV – country governance; $e$ – error term.

3.3. Variable Operationalization

3.3.1. Firm Value

Firm value is measured using Tobin’s $Q$. Tobin’s $Q$ is a ratio measured by the market value of a company’s assets as measured by the market value of the amount of debt and shares outstanding against the replacement cost of the company’s assets (Fiakas, 2005). Tobin’s $Q$ formula is as follows:

$$Q = \frac{\text{Total market value} + \text{Total book value of liabilities}}{\text{Total book value of asset}}$$
3.3.2. ESG Score
This study uses ESG scores obtained from Thomson Reuters. The ESG score found at Thomson Reuters is a financial aspect of calculating the total score so that the score displayed reflects the company’s environmental performance. The ESG indicator that will be used is ESG Pillar Environmental, which is measured from three categories, namely resource use, emission, and innovation. ESG Pillar Environmental is a composite score of the three categories consisting of 19 indicators of resource use, 20 indicators of emission, and 22 indicators of innovation. The ESG calculation method conducted by Thomson Reuters can be seen in Appendix 1.

3.3.3. Controversies Score
The ESG Controversy Category Score is calculated based on 23 ESG controversy topics and measures the company’s exposure to ESG controversies and negative events reflected in global media. In one year, if a scandal occurs, the companies involved will be punished, and this will affect their overall ESG score and assessment. The impact of these events can still be seen in the following year if there are new developments related to negative events, such as lawsuits, ongoing legal disputes, or fines. All new media material was captured when the controversy continued. The list of 23 topics of controversy in question can be seen in Appendix 2. The controversy score calculation is done in the following ways:

• The default value of all controversy is 0. **Example:** to measure controversy, if the benchmark consists of six companies, four with a value of 0 and two with a value of 1 (the polarity here becomes negative, so the higher number will be worse), then the formula for companies without controversy is \( (2 + 4/2)/6 = 67\% \) and for companies with one controversy is \( (0 + 2/2)/6 = 17\% \).
• All controversies were calculated at the close of the last fiscal year, and no controversy was double-ended.
• The controversy is measured in one industry group.

3.3.4. Control Variables
This study uses several control variables to control the characteristics of the company that can affect firm value, namely company size, industrial classification, growth, leverage, ROA, and ROE. While to control differences in characteristics between countries, this study uses the world governance index.

The size of the company is considered able to influence the value of the company. The larger the size or scale of the company, the easier it will be for the company to obtain funding sources, both internal and external (Berger et al. 1995). Company size is a total reflection of assets owned by a company. Large-scale companies tend to attract investors because they will impact the company’s value later, so it can be said that the size of a company directly affects the value of the company. Company size is measured using natural logarithms of total assets.
One of the company’s growth can be seen through the growth of assets owned by the company. Companies with high asset growth values can indicate that the company has good profit projections in the future. Investors see an indication of good profit projections as an excellent opportunity that affects investors to invest in the company (Varaiya, 1987). This research measures the level of growth by using growth rates on company assets.

Another control variable is leverage. Leverage is the ability of companies to use assets or funds that have a fixed burden that is used to increase company profits. The higher the level of leverage indicates that the greater the risk that must be borne by the company and the higher the level of profit expected to be obtained by the company (Lang, 1996). In this study, leverage is measured by the ratio of total debt to equity, which the higher the leverage ratio, the higher the company’s risk the company has.

One of the tasks of management is to increase shareholders value through improved performance. This study controls the performance of the company by using two measures, namely ROA and ROE. In investment activities, ROA is often one of the ratios used as a benchmark in choosing shares. ROA is the yield or rate of return on the total assets in the balance sheet. ROA is used as a measure of management performance by looking at how management can use assets to become profits for the company. ROA is measured by the ratio of income to total assets whereas ROE is the return-on-equity in the form of a ratio. ROE can show the effectiveness of management in generating profits from shareholder investment funds. The value of ROE is an essential consideration for investors in investing. Investors will be more interested in companies that have a higher ROE ratio because it is assumed that company management has an excellent ability to generate profits, investors’ interest in companies that have high-value ratios can lead to increased company value. ROE is measured using the ratio of income and total equity.

In measuring the country-level effect as a comparison between countries, this study uses the Worldwide Governance Indicators compiled by Kaufman & Kraay 2002 on governance in more than 200 countries during 1996–2017. The dimensions of governance assessed in the WGI (Worldwide Governance Indicators) indicator are Voice and Transparency, Political Stability and Absence of Violence, Government Effectiveness, Quality of Regulations, Rules of Law, and Corruption Control.

4. RESULT AND ANALYSIS

4.1. Descriptive Statistics

Table 3 presents a descriptive statistical analysis of the dependent, independent, and control variables in this study. The number of observations used in this study is 3,723 observations. Based on Table 3 for the dependent variable, which is the firm value (Tobin’s Q), the lowest value for is 7.06, and the highest value is 95.57. The lowest company value was the company Clevo Co (2362.TW) from Taiwan in 2014.
Meanwhile, the highest corporate value was Infosys Ltd (INFY.NS) from India in 2015. The average company value of all sample companies in Asia was 46.05. Based on these data, it can be seen that there is a gap between the lowest and highest values that are very far toward the value of companies in Asia.

The first independent variable is the ESG Score (ESG); it is a composite score of environmental, social, and corporate governance. The first Independent variable, the ESG Score (ESG), has the lowest value of 7.62, and the highest value is 95.24. The company that scored the lowest score was Clevo Co. (2362.TW) from Taiwan in 2014. Meanwhile, the company that has the highest ESG score is Infosys Ltd (INFY.NS) from India (2018), whereas the average score assessment for ESG in Asia is 50.10.

The variable ESG Combined Score is a composite score of ESG and Controversies Score. The second Independent variable, the ESG Combined Score (ESG), has the lowest value of 7.11, and the highest value is 94.45. The company that scored the lowest score was Huadian Power International Corp Ltd (600027.SS) from China (2015), and the highest score is owned by Infosys Ltd (INFY.NS) from India (2016). The average ESG rating score companies in Asia are 46.99.

The third independent variable is the ESG Controversies Score (CONTRO), where the higher the assessment score of the company indicates the increasing number of controversies or negative reporting of the company in the media related to environmental, social, and corporate governance issues. The lowest value of this variable is 0.15, and the highest value is 73.07. The lowest scoring score is owned by Kobe Steel Ltd (5406.T) from Japan in 2018. Meanwhile,
the company that has the highest controversy is Skyworth Digital Holdings Ltd (0751.HK) from Hong Kong in 2018, whereas the average score assessment for ESG Controversies in Asia is 51.21.

The fourth independent variable is ESG Environmental Score (ENV), which is an ESG assessment score by Thompson Reuters on environmental performance carried out by the company. The lowest value of this variable is 3.90, and the highest value is 98.95. The lowest score for the ESG assessment of environmental performance is owned by the Gulf International Services QSC company from Qatar in 2017. Meanwhile, the highest score for the assessment is owned by Mitsui Fudosan Co Ltd (8801.T) from Japan in 2018. The average score for ESG Environmental Score for companies in Asia is 53.23.

The fifth Independent variable is the ESG Social Score (SOC), which is an ESG assessment score by Thompson Reuters for the social performance of the company. The lowest value of this variable is 2.50, and the highest value is 98.60. The lowest value for the ESG assessment score for the company’s social performance was obtained by the company Pix Art Imaging Inc. (3227. TWO) from Taiwan in 2015. Meanwhile, the highest score for the ESG assessment score for the company’s social performance was owned by Infosys Ltd (INFY.NS) from India in 2018. The average score for ESG Social Scores for companies in Asia is 47.51.

The sixth Independent Variable is ESG Governance Score (GOV), which is an ESG assessment score by Thompson Reuters on corporate governance performance. The lowest value of this variable is 3.42, and the highest value is 97.58. The lowest value for the ESG assessment score on corporate governance performance was obtained by the Berjaya Corporation Bhd (BGRO.KL) Company from Malaysia in 2014. Meanwhile, the highest score for ESG assessment scores on corporate governance performance is owned by the company Hopewell Highway Infrastructure Ltd (0737 .HK) from Hong Kong in 2016. The average rating score for the ESG Governance Score in companies in Asia is 49.62.

4.2. Analysis of the Results

In Table 4, the results of the regression test from this study using the Ordinary Least Squares (OLS) method. This study used seven control variables, including company size, leverage, ROA, ROE, growth of company assets, country-level effects measured using the rule of law index, and industrial classification.

The first model examines the direct relationship between the overall value of ESG performance on company value. The second model examines the relationship between combined ESG performance (overall ESG performance value and controversy) on firm value. The third model examines the relationship between pillars of ESG environmental performance against firm value. The fourth model examines the relationship between pillars of social ESG performance against firm value. The fifth model examines the relationship between the pillars of ESG governance’s performance toward firm value. Finally, the sixth model examines the relationship between the ESG controversy and company value.
The overall test results show that ESG, ESG Combined, ENV, SOC, GOV, and controversy have a positive impact on firm value. Based on the results of the test for the six models above, all models show the results of $\text{Prob}>\chi^2 = 0.0000$, which indicates that the overall model can explain the dependent variable significantly. However, it can be seen that the most significant coefficient value is in the test results between the ESG Combined Score and the value of the company, which reaches 0.9287.

**Table 4. Regression Results.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dependent</th>
<th>Tobin’s Q</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+/-</td>
<td>(1)</td>
</tr>
<tr>
<td>ESG</td>
<td>+</td>
<td>0.8392</td>
</tr>
<tr>
<td>ESGCOMB</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>ENV</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>SOC</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>GOV</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>CONTRO</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>CGOV</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob&gt;F</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The number in the first row is the coefficient value, while the number in brackets is the value of $p$-value. All models are controlled by country-level effects, year, and industry. *, **, and *** indicate the statistical significance at the level of 10%, 5%, and 1% as a whole the results of the regression test.

**Dependent variable:** (1) Tobin’s $Q$: firm value.

**Independent variables:** (1) ESGCOMB: proxy for combined ESG performance (environmental, social, governance, and controversy). (2) ENV: proxy for ESG environmental performance. (3) SOC: proxy for social ESG performance. (4) GOV: performance proxy ESG corporate governance. (5) CONTRO: proxy value of company controversy.

**Control variables:** (1) SIZE: firm size. (2) LEV: company debt level. (3) ROA: return-on-assets. (4) ROE: return-on-equity. (5) GROWTH: percentage of growth in company assets. (6) CGOV: rule of law, country-level effect, quality index of the legal framework of each country.
In addition, the $R^2$ from the results of the six model tests showed good results, where the highest $R^2$ value was in the second model, for Combined ESG of 86.51%, followed by the first model of ESG of 72.51%, then ENV, SOC, and GOV, each of which has $R^2$ values of 54.17%, 58.67%, and 36.45%. While the model with the lowest $R^2$ value is a model that measures the value of controversy, that is, the $R^2$ value is 11.62%. The value of $R^2$ can indicate the ability of the model to explain variations in the dependent variable at the value of $R^2$, and the rest are other variables outside the model.

The description regarding the results is described as follows. The ESG Score, ESG Combined Score, ESG Environmental Score, ESG Social Score, and ESG Governance Score all has a significant positive relationship to firm value. The first to fifth results are in line with previous findings which show that ESG is positively correlated with firm value (Aboud & Diab, 2018; Fatemi et al., 2018; Plumlee, 2015; Yoon et al., 2018).

In addition to these five results, there are six results, namely, ESG Controversies companies in Asia are positively related to company value. The result is in line with previous research conducted by Aouadi and Marsat (2018) conducted using a sample of 58 countries spread from various continents in the world. The study found that for companies that have better performance, they are not easily influenced by negative media coverage. This is supported by several studies, such as those suggested by Hoffman (2001), which show that stakeholders may even ignore extreme crises. Likewise, Zyglidopoulos et al. (2012) show that the weakness of CSR is not sensitive to changes and media attention, this is measured by the number of times the name of the company with negative coverage is mentioned in four major US newspapers.

However, the sixth result contradicts a study conducted by Johnson (2003), which shows that illegal CSR activities can damage the company’s financial performance. Furthermore, Kruger’s research (2014) shows evidence that investors have a strong negative response to negative reporting on ESG. Their response is robust when the information concerns employees and the environment (Chollet & Sandwidi, 2013), or the community. Likewise, research by Oikonomou et al. (2012) confirms that CSR is negatively related to systematic risk and mainly that CSR concerns are associated with higher systematic risk. Kang and Kim’s (2013) research also shows that companies lose market share if there are negative CSR news articles about them in the previous year.

Test results show the influence of the ESG index on firm value in Asia are confirmed by five models that show a positive correlation between ESG performance and company value in Asia. Among the test results that showed a positive correlation between ESG performance and company value in Asia, there were interesting findings in this study related to the value of ESG controversy. The test results show a positive correlation between the value of ESG controversy and an increase in the value of companies in Asia. However, after processing the data again using company size that is below the average value of open companies in Asia, the test results show a negative correlation between the value of ESG controversy and the value of companies in Asia. This can be influenced by various
factors, such as large companies that have a good reputation, followed by many analysts, and have excellent performance.

5. ADDITIONAL RESULT AND ANALYSIS

The finding of this study shows the value of the ESG controversy has a positive correlation with the companies’ value in Asia. The finding of the study is in line with previous studies conducted by Aouadi and Marsat (2018) using a sample of 58 countries spread from various countries in the world. However, this finding contradicts Kruger’s (2014) research, which shows evidence that investors have strong negative responses to negative ESG-related reporting. Their response is very strong when the information concerns employees and the environment (Chollet & Sandwidi, 2013), or the community.

Negative news related to sustainability issues carried out by the company will affect the company’s reputation in public. This is related to legitimacy theory, where legitimacy is important for companies to ensure long-term welfare (Suchman, 1995). Thus, there is an expectation that the company’s ESG controversy is associated with a decreased firm value (Adams, 2002; Fombrun, 1996; Fombrun & Shanley, 1990; Orlitzky, 2013; Weigelt & Camerer, 1988). Empirically, previous research conducted by Frooman (1997) found that stock markets react negatively to corporate involvement in irresponsible or suspicious social behavior. In a study conducted by Klassen and McLaughlin (1996) analyzed 22 negative corporate reports (gas leak, oil spill, and others) with 140 positive news companies (environmental awards), it was found the fact that there were a negative stock returns to companies with negative reports.

To get further evidence, reprocessing data are done for companies with company sizes below the average to find out the impact. The following are the regression test results for adjusted company data.

In Table 5, the results of the regression test show that the ESG controversies score in Asia has a negative effect on firm value. In other words, the impact of the ESG controversies information will differ between large and small companies. In large companies with good performance, negative reporting on sustainability issues will not have an impact on decreasing company value; on the contrary, it increases the value of the company. In line with the study of Hoffman (2001) shows that stakeholders tend to ignore the extreme crises of the company. However, in small companies, negative reporting on sustainability issues will have a direct impact on decreasing the firm’s value. This is in line with Kruger’s research (2014), which provides evidence that investors have a strong negative response to negative reporting on ESG.

6. CONCLUSION AND IMPLICATIONS

This study aims to analyze and provide evidence regarding the influence of ESG performance and the controversy of listed companies in Asia on company values
Effect of ESG and Controversies on Firms’ Value

measured using the proxy ESG Score, ESG Combined Score, ESG Environmental Score, ESG Social Score, ESG Governance Score, and ESG Controversies Score against scores the company uses the Tobin’s $Q$ ratio proxy. This study uses a sample of public companies listed on the 22 stock exchanges in Asia during the period 2014–2018.

Overall, the model used in this study is able to explain the relationship between the dependent variable and the independent variable. Based on the results of the tests that have been conducted, the following research findings are obtained:

1. ESG performance of companies in the Asian region measured using the ESG Score has a significant positive effect on firm value. This indicates that companies with better ESG performance values will have a higher corporate value compared to companies with lower ESG performance values.
2. ESG performance of companies in the Asian region measured using the ESG Combined Score has a significant positive effect on firm value. This indicates that companies with better ESG performance values will have a higher corporate value compared to companies with lower ESG performance values.
3. ESG performance of companies in the Asian region measured using ESG Environmental Score has a significant positive effect on firm value. This

### Table 5. Regression Result of Adjusted Data.

<table>
<thead>
<tr>
<th>Variable Dependent</th>
<th>$+/-$</th>
<th>Tobin’s $Q$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRO</td>
<td>–</td>
<td>0.0293</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.003)**</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.4769</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000)**</td>
</tr>
<tr>
<td>LEV</td>
<td>+</td>
<td>−0.0308</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.517)</td>
</tr>
<tr>
<td>ROA</td>
<td>+</td>
<td>0.0144</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.758)</td>
</tr>
<tr>
<td>ROE</td>
<td>+</td>
<td>−0.1168</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.456)</td>
</tr>
<tr>
<td>CGOV</td>
<td>+</td>
<td>0.0899</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.724)</td>
</tr>
<tr>
<td>GROWTH</td>
<td>+</td>
<td>−0.2820</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.622)</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>15.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000)**</td>
</tr>
<tr>
<td>$N$ Observation</td>
<td></td>
<td>1.861</td>
</tr>
<tr>
<td>Prob&gt;F</td>
<td></td>
<td>0.0000</td>
</tr>
<tr>
<td>$R$-squared (%)</td>
<td></td>
<td>5.30%</td>
</tr>
</tbody>
</table>

The number in the first row is the coefficient value, while the number in brackets is the value of $p$-value. Country-level effects, year, and industry control all models. *, **, and *** indicate the statistical significance at the level of 10%, 5%, and 1% as a whole the results of the regression test.

Dependent variable: Tobin’s $Q$: firm value.

Independent variables: CONTRO: ESG Controversies Score.

Control variables: (1) SIZE: firm size. (2) LEV: company debt level. (3) ROA: return-on-assets. (4) ROE: return-on-equity. (5) GROWTH: percentage of growth in company assets. (6) CGOV: rule of law, country-level effect, quality index of the legal framework of each country.
indicates that companies report good environmental performance will have a higher corporate value than companies report poor ESG environmental performance values.

4. ESG performance of companies in the Asian region measured using ESG Social Score has a significant positive effect on firm value. This indicates that by having a good ESG social performance value, the company will be able to increase the value of its company and vice versa.

5. ESG performance of companies in the Asian region measured using ESG Governance Score has a significant positive effect on firm value. Companies with ESG values of good governance are proven to have higher corporate value compared to companies that have lower governance values.

6. ESG performance of companies in the Asian region measured using ESG Controversies Score has a significant positive effect on firm value. This finding is quite interesting because the higher the value of controversy or negative media coverage about companies around the issue of ESG, the value of the company is also increasing. However, the result for adjusted data with small company size shows a significant negative effect on firm value.

Based on the findings above, in general, it can be concluded that for companies in the Asian region, the better the ESG performance of the company will have an impact on increasing the value of the company, whereas if the company’s ESG performance is terrible, it can reduce the value of the company.

REFERENCES


APPENDIX 1

Thompson Reuters Calculation Method.

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Category</th>
<th>Indicators in Ratings</th>
<th>Weights (%)</th>
<th>Pillar Weights (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Resource use</td>
<td>19</td>
<td>11</td>
<td>(11+12+11)</td>
</tr>
<tr>
<td></td>
<td>Emissions</td>
<td>22</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td>20</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>Workforce</td>
<td>29</td>
<td>16</td>
<td>(16+4.5+8+7)</td>
</tr>
<tr>
<td></td>
<td>Human rights</td>
<td>8</td>
<td>4.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>14</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Product</td>
<td>12</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td>Management</td>
<td>34</td>
<td>19</td>
<td>(19+7+4.5)</td>
</tr>
<tr>
<td></td>
<td>Shareholders</td>
<td>12</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSR strategy</td>
<td>8</td>
<td>4.50</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>178</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX 2

ESG Controversy Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>Anti-Competition Controversy</td>
<td>Number of controversies published in the media linked to anticompetitive behavior (e.g., antitrust and monopoly), price-fixing, or kickbacks.</td>
</tr>
<tr>
<td>Community</td>
<td>Business Ethics Controversies</td>
<td>Number of controversies published in the media linked to business ethics in general, political contributions, or bribery and corruption.</td>
</tr>
<tr>
<td>Community</td>
<td>Intellectual Property Controversies</td>
<td>Number of controversies published in the media linked to patents and intellectual property infringements.</td>
</tr>
<tr>
<td>Community</td>
<td>Critical Countries Controversies</td>
<td>Number of controversies published in the media linked to activities in critical, undemocratic countries that do not respect fundamental human rights principles.</td>
</tr>
<tr>
<td>Community</td>
<td>Public Health Controversies</td>
<td>Number of controversies published in the media linked to public health or industrial accidents harming the health and safety of third parties (non-employees and non-customers).</td>
</tr>
<tr>
<td>Community</td>
<td>Tax Fraud Controverses</td>
<td>Number of controversies published in the media linked to tax fraud, parallel imports, or money laundering.</td>
</tr>
<tr>
<td>Human Rights</td>
<td>Child Labor Controverses</td>
<td>Number of controversies published in the media linked to use of child labor issues.</td>
</tr>
<tr>
<td>Human Rights</td>
<td>Human Rights Controverses</td>
<td>Number of controversies published in the media linked to human rights issues.</td>
</tr>
</tbody>
</table>
### ESG Controversy Categories (Continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>Mgt Compensation</td>
<td>Number of controversies published in the media linked to high executive or board compensation.</td>
</tr>
<tr>
<td></td>
<td>Controversies Count</td>
<td>Number of controversies published in the media linked to high executive or board compensation.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Consumer Controversies</td>
<td>Number of controversies published in the media linked to consumer complaints or dissatisfaction directly linked to the company’s products or services.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Controversies Customer Health &amp; Safety</td>
<td>Number of controversies published in the media linked to customer health and safety.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Controversies Privacy</td>
<td>Number of controversies published in the media linked to employee or customer privacy and integrity.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Controversies Product Areas</td>
<td>Number of controversies published in the media linked to product access.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Controversies Responsible Marketing</td>
<td>Number of controversies published in the media linked to the company’s marketing practices, such as over-marketing of unhealthy food to vulnerable consumers.</td>
</tr>
<tr>
<td>Product Responsibility</td>
<td>Controversies Responsible R&amp;D</td>
<td>Number of controversies published in the media linked to responsible R&amp;D.</td>
</tr>
<tr>
<td>Resource Use</td>
<td>Environmental Controversies</td>
<td>Number of controversies related to the environmental impact of the company’s operations on natural resources or local communities.</td>
</tr>
<tr>
<td>Shareholders</td>
<td>Accounting Controversies Count</td>
<td>Number of controversies published in the media linked to aggressive or non-transparent accounting issues.</td>
</tr>
<tr>
<td>Shareholders</td>
<td>Insider Dealings Count</td>
<td>Number of controversies published in the media linked to insider dealings and other share price manipulations.</td>
</tr>
<tr>
<td>Shareholders</td>
<td>Shareholders Rights Controversies Count</td>
<td>Number of controversies published in the media linked to shareholder rights infringements.</td>
</tr>
<tr>
<td>Workforce</td>
<td>Diversity and Opportunity Controversies</td>
<td>Number of controversies published in the media linked to workforce diversity and opportunity (e.g., wages, promotion, discrimination, and harassment).</td>
</tr>
<tr>
<td>Workforce</td>
<td>Employee Health &amp; Safety Controversies</td>
<td>Number of controversies published in the media linked to workforce health and safety.</td>
</tr>
<tr>
<td>Workforce</td>
<td>Wages or Working Condition Controversies Count</td>
<td>Number of controversies published in the media linked to the company’s relations with employees or relating to wages or wage disputes.</td>
</tr>
<tr>
<td>Workforce</td>
<td>Management Departures</td>
<td>Has an important executive management team member or a key team member announced a voluntary departure (other than for retirement) or been ousted?</td>
</tr>
</tbody>
</table>