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CEO OVERCONFIDENCE, ESG DISCLOSURE, AND FIRM RISK

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Abstract

Environmental, Social, and Governance (ESG) has increasingly attracted the attention of firms and stakeholders. The purpose of this study is to examine whether the mediating role of ESG disclosure has a negative effect on CEO overconfidence and firm risk, especially based on investors' perspectives. Many studies on ESG disclosure were conducted in Europe and America. Most ESG disclosures are measured using manual checklist based on annual reports or firm websites. By using panel dataset of 225 manufacturing firms in Indonesia, Malaysia, the Philippines, Singapore and Thailand from 2012-2016 obtained from Thomson Reuters' ESG score, the research shows that CEO overconfidence has no negative direct effect on firm risk but the role of ESG disclosure as a mediating variable has a negative effect on CEO overconfidence and firm risk. CEO overconfidence has a positive effect on ESG disclosure and ESG disclosure has a negative effect on firm risk. CEO with overconfidence characteristics will make the best decisions to disclose ESG in order to increase firm value and reduce firm risk.

Keywords: *CEO overconfidence; ESG Disclosure; and Firm Risk*

Abstrak

Environmental, Social, and Governance (ESG) semakin mendapatkan perhatian di antara perusahaan dan pemangku kepentingan. Tujuan dari penelitian ini adalah untuk menguji apakah peran mediasi pengungkapan ESG memiliki pengaruh negatif terhadap CEO overconfidence dan risiko perusahaan, terutama berdasarkan perspektif investor. Banyak penelitian mengenai pengungkapan ESG hanya dilakukan di Eropa dan Amerika. Sebagian besar pengungkapan ESG diukur menggunakan daftar ceklist manual berdasarkan laporan tahunan atau situs web perusahaan. Dengan menggunakan dataset panel dari 225 perusahaan manufaktur Asia Tenggara di Indonesia, Malaysia, Filipina, Singapura dan Thailand tahun 2012-2016 yang diperoleh dari skor ESG Thomson Reuters, hasilnya menunjukkan bahwa CEO overconfidence tidak memiliki pengaruh negatif terhadap risiko perusahaan secara langsung namun peran pengungkapan ESG sebagai variabel mediasi terhadap pengaruh negatif CEO overconfidence dan risiko perusahaan terbukti. CEO overconfidence memiliki pengaruh positif terhadap pengungkapan ESG dan pengungkapan ESG memiliki pengaruh negatif terhadap risiko perusahaan. CEO overconfidence akan memilih keputusan terbaik untuk mengungkapkan ESG sehingga nilai perusahaan akan meningkat dan mengurangi risiko perusahaan.

Kata Kunci: *CEO Overconfidence; Pengungkapan ESG; dan Risiko Perusahaan*

INTRODUCTION

Firm risk is the potential loss of firm value as a result of uncertainty about results or events in the future (Sassen, et al. 2016). Risk can also be seen from the perspective

of information risk. One method to reduce firm risk is to have a confident CEO who has the ability to lead the company and make decisions objectively, for example disclosing voluntary disclosures to reduce

firm risk. An overconfident CEO tends to disclose more in order to lower asymmetric information and reduce information risk. Also, an overconfident CEO tends to innovate and invest more in order to get a higher return under uncertain conditions. The higher risk faced by a firm will pose a higher risk for investors. Investors can analyze firm risk from stock volatility, whether the firm has a high or low return volatility. Volatility in stock returns has many roles in the financial sector, including for observing the price behaviour of a financial asset. This behaviour can be observed through standard deviations of the stock returns in the previous year. Volatility can be defined as to what extent we can confidently predict value in the future. The decrease of a firm's return volatility indicates that the firm has a small level of risk (Moeller 2011).

Firms will give a benefit to their investors by reducing firm risks. Based on stakeholder theory, a firm must be able to provide benefits to its stakeholders. These benefits can be provided by disclosing voluntary disclosures because currently investors are more interested in voluntary disclosures which are disclosed by the firm (Sassen et al. 2016). One of which is the disclosure of the firm's non-financial performance. The emergence of investors' interest in non-financial performance due to current financial performance is less relevant to be used as a reference in making decisions to invest because it is less able to predict future performance. Investors are currently interested in non-financial performance because this performance can illustrate how corporate governance is, whether the firm has social and environmental responsibilities. Performance which has become a concern and is being talked about is related to corporate social performance (CSP). CSP has been an increasingly important concept used to ensure that a firm has a positive influence on society, employees and consumers. Organizational CSPs are often operationalized and evaluated by environmental, social and

governance disclosures (Bassen and Senkl 2011).

Environmental, social and governance (ESG) disclosures have the ability to reduce risk so that firms will try to disclose ESG (Sassen et al. 2016). Firms that focus on ESG disclosure can avoid the costs arising in the future because the firm is considered to be able to prevent the impact of the damage that will occur. Through ESG disclosure, investors can see the transparency of the firm. This can reduce information asymmetry because the ESG disclosure has provided additional information.

ESG disclosures can reduce firm risk because of the role of the CEO who is the key management responsible for the policies made by the firm. One of the characteristics of CEO is overconfident. Overconfident CEO is the CEO who tends to overestimate the firm's performance in the future (Malmendier and Tate 2005). CEO overconfidence can affect firm decisions included in investment policies. Hirshleifer et al. (2012) found that firm with an overconfident CEO invested more in innovation, obtained more patents, and achieved greater innovative success for the R&D expenses incurred. The role of CEO overconfidence is very important for investor because regarding the decision of managerial effort, it can reduce information asymmetry. CEO Overconfidence tend to disclose voluntary disclosure as a means to improve information transparency and strategies (Dhaliwal et al. 2012). An overconfident CEO has a principle that he has a managerial discretion to oblige their actions toward ESG disclosure outcomes and improve information transparency (Dhaliwal et al. 2012).

Overall, there are only few studies on the effect of ESG disclosure on firm risk. Based on a meta-analytic review of the effect of ESG disclosure and firm risk, there were only 18 studies in the US with a relatively small sample within the period of 1978-1995 (Orlitzky and Benjamin 2001). Most studies focused on firms in North

American and Europe. Sassen et al. (2016) found that ESG disclosure is a firm policy action to reduce firm risk. ESG disclosure is one of voluntary disclosures that can provide a good signal for investors. This study aims to examine the effect of ESG disclosure and firm risk, especially in Southeast Asian countries, which include Indonesia, Malaysia, the Philippines, Singapore and Thailand. The measurement of firm risk is based on total risk, which is by looking at the stock returns volatility. Research on ESG quality is largely based on the ranking and checklist developed by individuals by collecting data manually from annual reports or firm websites (Aerts et al. 2008). This study uses ESG disclosure ratings that can be obtained from commercial research data, such as Bloomberg and Thomson Reuters. Further, previous research has never examined ESG disclosure as a mediating variable in the relationship between CEO overconfidence and firm risk. Previous research found that CEO overconfidence has an effect on firm risk. So, this study is also expected CEO overconfidence will affect firm risk. CEO overconfidence is also expected to affect ESG disclosure because CEO overconfidence will make a decision to decrease firm risk. One of the ways that gaining more attention now is disclose ESG disclosure. The existence of CEO overconfidence has an ability to affect firm risk through their choice for releasing ESG disclosure.

The main purpose of this study is to investigate whether CEO overconfidence has a negative effect on firm risk, and to investigate the effect of ESG disclosure as a mediating variable on the effect between CEO overconfidence and firm risk. This study focuses on information risk. The research data were obtained from Thomson Reuters databases and financial statements of manufacturing firms in Southeast Asian countries, which include Indonesia, Malaysia, the Philippines, Singapore and Thailand within the period of 2012-2016. Few studies were done from 2012 to 2016 because there was still little research

examining the Southeast Asian region and there only a few firms that disclose ESG in 2011 so this study took the sample from 2012. Regulators and exchanges in Asia-Pacific markets are showing an increased interest in promoting ESG integration by mandating or recommending disclosures so that research needs to be done regarding whether ESG disclosures in Southeast Asian firms in affect the firms' risk. The relationship between CEO Overconfidence and ESG disclosure has never been examined. Therefore, this study aims to address the issue. By conducting SEM analysis, the results of the study indicate that CEO overconfidence has a significant positive effect on ESG disclosure, ESG disclosure has a significant negative effect on firm risk, and CEO overconfidence has a significant negative effect on firm risk indirectly through the mediation of ESG disclosures. However, this study found that CEO overconfidence has an insignificant negative effect on firm risk. Previous study found that CEO Overconfidence has an effect on firm risk (Aghazadeh et al. 2018; Galasso et al. Simcoe 2011). This study proves that there is an indirect effect of CEO Overconfidence on firm risk through ESG disclosure. This study contributes to the literature regarding disclosures of environment, social, and governance. First, this study uses ESG disclosure as a mediating variable. Second, this study uses CEO variables by measuring the level of overconfidence in the relationship. Third, this study uses firms in Southeast Asia as samples.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Literature Review

Stakeholder Theory

Stakeholder theory was originally developed by Freeman (1984) as a managerial instrument. According to Freeman (1984), stakeholder theory explains that a group of people or individuals identified can influence the activities of a firm or can be influ

enced by firm activities. Stakeholder theory explicitly focuses on the balance of the interests of stakeholders as the main determinant of firm policy. Stakeholders have the ability to give punishment or appreciation to the firm. One way of evaluating stakeholders is to look at the firm's social performance and how the firm is able to meet the demands of various stakeholders. ESG disclosure reflects the ability of the executive to compose social responsibility into profit so that the firm's risk can be reduced.

Based on stakeholder theory, a firm must be able to provide benefits to stakeholders. These benefits can be provided by implementing Corporate Social Responsibility (CSR) programs. The existence of the programs in the firm is expected to improve the welfare of employees, customers and local communities. This shows that a high level of ESG disclosure can encourage a more stable relationship with the government and financial community (Mcguire et al. 1988).

Upper-echelon Theory

Upper-echelon theory is the experience, value, and executive personality that greatly influence the interpretation of a situation that can influence choices (Hambrick 2007). With upper-echelon theory, firms can know that top executives are the most powerful actors and must be considered to avoid bias (Hambrick 2007). Upper-echelon theory states that executive psychological characteristics can greatly influence the CEO's decision-making process under certain internal or external conditions (Hambrick and Mason 1984).

CEO becomes a filter between the dynamics of the environmental situation and the choice of strategy. CEO plays an important role in strategic decision making and resource allocation. In the perspective of upper-echelon theory, the strategy chosen by the leader is a reflection of their values and cognitive. This theory also shows that age, experience, education, social background, economic conditions,

and the characteristics of the group in which he is located are filters when they digest, analyze, and try to understand the anatomy of the problem (D. C. Hambrick and Mason 1984).

One characteristic of the CEO is CEO overconfidence. CEO overconfidence has the ability to increase stock prices (Malmendier and Tate 2005). Overconfident CEOs have many innovations, patents, and research and development expenditures so that they can increase the value of the firm (Galasso and Simcoe 2011). They tend to disclose ESG so that it can provide benefits and reduce the risks faced by investors when investing (Sassen et al. 2016).

Information Asymmetry Theory

Information asymmetry is a condition when investors have information about the firm's performance and others do not. One way the firm can reduce information asymmetry is by disclosing voluntary disclosure (Petersen and Plenborg 2006). The disclosure is expected to provide equal access for stakeholders to financial information and other information from a firm to reduce investment risk and affect the expected level of return (Dhaliwal et al. 2012).

Petersen and Plenborg (2006) observed that high quality voluntary disclosure can reduce the level of information asymmetry by reducing the firm's capital costs. One of the voluntary disclosures is ESG disclosure. With ESG disclosure, it is expected that the firm will disclose environmental information to fulfill its social obligations to environmental protection, promote the value of environmental protection work and strengthen the social supervision of environmental protection works that the firm does. ESG disclosure also provides information about the corporate governance structure so that it can increase transparency. Companies must have good governance to mitigate risks to firm reputation and fraud. Meanwhile, investors can pay attention to information about corporate governance to prevent future losses and re

duce risk. Through the disclosure of CSR, the firm is regarded as having a responsibility to stakeholders and its role in social activities. Good ESG disclosure can be associated with good environmental, social and governance performance so that it will improve financial performance and reduce information asymmetry that can reduce risk. In addition, CEO overconfidence also tends to reveal more information because it is expected to reduce information asymmetry (Petersen and Plenborg 2006). Based on the theory of information asymmetry, by disclosing more information, a firm tends to be able to reduce information asymmetry so that the firm will be more liquid and reduce the cost of capital incurred by investors (Petersen and Plenborg 2006).

Signalling Theory

Signaling theory explains that the signal given by the manager to reduce information asymmetry that occurs to various parties related to the firm. In practice, the quality of each firm is different so that the signal process is an action taken by top managers and will not be possible by middle and lower level managers (Scott 2015). Companies that can provide good signals cannot be separated from the CEO's role in making decisions, one of them is CEO overconfidence because it has good ability to make corporate decisions so that the signals given have credibility and can be trusted by investors and other users. In the literature on signaling theory, investors have the assumption that CEO overconfidence can reduce information risk. Managers will make a decision to diminish the information gap with outsiders, and may use other means to disseminate information, send good signals to the market, and retain a good reputation, for example, via CSR activities (Lys et al. 2015).

According to Jogiyanto (2014), information published by firm is an announcement that gives a signal for investors to make investment decisions. When the information is announced, market participants first interpret and analyze the information as

good news or bad news. If the information is considered a good signal, investors will be interested in trading shares, so that the market will react as reflected by changes in stock trading volume (Suwardjono 2014). One type of information issued by firms that can be a signal to outside parties is voluntary disclosure. One of types of voluntary disclosures that can provide a good signal for investors is ESG disclosure (Sassen et al. 2016). ESG disclosure can provide a good signal for investors because it can reduce firm risk so that the investors will tend to invest.

CEO Overconfidence

Overconfidence is a personal characteristic that describes the tendency of individuals to think that they are better than they really are in ability, judgment, and motivation for success (Hirshleifer et al. 2012). Overconfident CEO is a CEO who has a tendency that he has better characteristics in terms of ability, judgment, skill, and level of success. Different from CEO overconfidence, CEO Ability is the CEO that has a skill related to corporate policies involving investing, financing decisions and executive compensations. The previous literature describes CEO overconfidence as a CEO's tendency to disclose more voluntary disclosures (Lys et al. 2015). When an overconfident CEO makes a decision, the CEO will be influenced by his or her personal characteristics. CEO overconfidence plays an important role in decision making and firm policy. Based on (Malmendier and Tate 2005), CEO overconfidence measurements are based on stock options. CEO overconfidence will continually make more choices than those suggested by the benchmark because they feel that with its ability to keep the firm's stock price up and believe it will benefit by holding options.

Environmental, Social, and Governance

ESG Disclosure is an assessment conducted using research data information related to ESG performance by calculating the weighted average of the three ESG compo

nents namely environmental, social, and governance. ESG disclosures can be used widely in the capital market to describe formal corporate reporting outside the financial statements issued, required by the Accounting Standards. In the Social and Environment Accounting (SEA) literature and in public practice, ESG reports refer to sustainability reports, corporate social responsibility (CSR) reports, global reporting initiatives (GRI) reports, corporate responsibility reports, corporate social disclosure (CSD) reports, and triple bottom line (TBL) reports.

Environmental, social and governance (ESG) disclosure can be seen based on assessments of financial database information such as Thomson Reuters. Thomson Reuters database provides ESG assessments consisting of ESG scores and ESG combined scores and elaboration of environmental, social and governance components. The ESG score assessment by Thomson Reuters is obtained by calculating the weighted average of the three main components of ESG's pillars, which are environmental, social, and governance.

The ESG combined score assessment conducted by Thomson Reuters is an assessment that combines the ESG score with 23 controversies determined by Thomson Reuters that took place over a year in the firm. Twenty-three controversies were included in the ESG controversies category obtained from global media sources with the aim of reducing the ESG score. The ESG combined score is calculated by measuring the weighted average of the ESG score and ESG controversies per fiscal period. When the firm is not involved in any controversy, the ESG combined score is similar to the ESG score. ESG score and ESG combined score have a minimum value of 0 and a maximum score of 100.

Firm Risk

Firm risk can be explained as the potential to lose corporate value as a result of uncertainty due to future events (Sassen et al. 2016). From investor perceptions, firm

risk can be seen from market risk, a risk that arises due to a decrease in the value of an investment because of movements in market factors. This study uses total risk measurement to measure the firm's risk by measuring stock volatility. The more volatile the stock is, the firm will be considered very risky so that risk averse investors will tend not to invest, but investors who are risk takers will invest because they expect to get a large return (Sassen et al. 2016).

Hypotheses Development

The Effect of CEO overconfidence and Firm Risk

An overconfident CEO is a CEO who has a tendency that he has better characteristics in terms of ability, judgment, skill, and prospects for success. The existence of an overconfident CEO in the composition of the firm's directors allegedly will influence the policies made by the firm. One of the policies taken by overconfident CEO is disclosing voluntary disclosure. Many studies have concluded that an overconfident CEO tends to disclose more to give signals to market in order to reduce information asymmetry. Petersen and Plenborg (2006) observed that high quality voluntary disclosures can reduce the level of information asymmetry. Not only does it provide benefits to the firms, CEO overconfidence also provides benefits to investors because the lower risk of information, the lower risk for investor will be. Based on stakeholder theory where the firm must be able to provide benefits to its stakeholders. CEO overconfidence will be able to provide a large rate of return and reduce risk so that capital costs will be lower (Aghazadeh et al. 2018). CEO overconfidence can also reduce stock volatility and provide large returns. An overconfident CEO feels he has more skills so that he or she can reduce the firm risk which can be seen from the decline in stock volatility. Besides, an overconfident CEO tends to disclose more to give signals to market so that asymmetric information

and information risk can be reduced. Investors will invest to a firm that has an overconfident CEO in order to decrease risk for investor.

CEO overconfidence will try to reduce firm risk because when the CEO makes the wrong decision will have an impact on their careers, besides the CEO overconfidence is also believed to have a lot of experience so that they will make decisions based on the experience they have experienced (Chowdhury and Fink 2017). When a firm is led by an overconfident CEO, the firm's strategy is often followed by changes such as expansion, divestment, or new product development. This is good news for investors because it can reduce stock volatility. The overconfident CEO will try to reduce firm risk because when he or she makes a wrong decision, it will have an impact on his or her career. In addition, the overconfident CEO will be able to disclose more so that information risk will be lower. By looking at this, investors will tend to invest because they expect a large return. So, the hypothesis tested is as follows:

H₁: CEO overconfidence has a negative effect on firm risk.

The Effect of CEO overconfidence and ESG Disclosure

The existence of the CEO in the composition of the firm's directors can influence the policies taken by the firm. CEOs who make decisions to disclose more are considered to have overconfidence, especially related to decision making in order to reduce information risk. Based on the upper echelon theory, one of the decisions taken by the CEO is influenced by psychological aspects. CEO overconfidence has its own discretion when deciding to make decisions because CEO overconfidence has the nature of empathy when looking at it from the perspective of investors, employees, customers, the environment, and other stakeholders (Waldman and Siegel 2008). CEO overconfidence plays an important role in decision making, one of which is in disclosing ESG. The aim of the firm to im-

prove ESG disclosure is to avoid or reduce the risk of class actions and related financial fines (Murphy and McGrath 2013). In addition, an overconfident CEO also sees ESG factors as very important factors for investors to consider when they want to invest because investors are more likely to consider non-financial aspects. Investors, shareholders, and clients expect greater responsibility and transparency from the firm. When investors make an investment, they expect to get high returns so that it can become a reference points and benchmarks that can be aspired by the firm in an effort to improve standards in creating stakeholder value. ESG disclosure is expected to provide equal access to stakeholders to financial information and other information from a firm so that it can reduce information asymmetry that has an impact on the rate of return (Dhaliwal et al. 2012). A good level of disclosure is inseparable from the role of an overconfident CEO in making decisions to disclose ESG so that ESG disclosure increases. So, the hypothesis tested is as follows:

H₂: CEO overconfidence has a positive effect on ESG disclosure.

The Effect of ESG Disclosure and Firm Risk

ESG disclosure is a firm policy action to reduce firm risk (Sassen et al. 2016). This is because firms that release ESG disclosures will have environmental, social and governance responsibilities. Based on stakeholder theory, the existence of ESG disclosure is to increase welfare for employees, customers, and investors. Firms that have environmental responsibility can reduce costs that will occur in the future because the firms will concern with the impact of environmental damage that will occur due to exploring resources. In addition, firms that have good corporate governance will certainly run well. When a firm releases ESG disclosure, the level of risk is expected to decrease (Gramlich and Finster 2013).

Previous research has presented consistent results that there is a negative effect

between Corporate Social Performance (CSP) operationalized and evaluated by environmental, social, and governance factors (Bassen and Senkl 2011) and firm risk (Sassen et al. 2016). The higher CSP has the potential to increase shareholder value by using lower corporate risk and thus lowering capital costs (Plumlee et al. 2015). Social performance and, more specifically, the values associated with external stakeholders (community, customers) seem to be the most relevant factors in dealing with firm risks. From an investor's perspective, integrating ESG can be a strategy and overall firm operations in reducing firm risk (Sassen et al. 2016). These findings imply that high public visibility influences the firm's reputation in disclosing ESG to reduce firm risk which can be seen from the decline in stock volatility. So, the hypothesis tested is as follows:

H₃: ESG disclosure has a negative effect on firm risk.

The Effect of CEO overconfidence, ESG Disclosure, and Firm Risk.

Firms that tend to take risks will have various risk policy options. Among these policies and strategies is to do voluntary disclosures; one of which is conducting ESG disclosures. The firm's decision to make ESG disclosure is an action that might potentially reduce risk. This is because if the firm has intended to disclose the firm's performance voluntarily, investors consider it as good news for them. The investors will continue to invest and this can reduce the firm risk in the future. Based on signalling theory, firms that disclose ESG will give a good signal for investors because it can reduce the risk of the company so that investors will tend to invest.

The tendency of firms to make big decisions can influence CEO overconfidence, which is the key in decision making. ESG disclosure can bridge the firm's stakeholders to be more loyal. High ESG disclosure is expected to have the potential to build individual morale so that it can motivate stakeholders to be more loyal to

the firm. Loyal stakeholders may be less responsive and less sensitive to negative news, which also results in less financial risk so as to reduce volatility and market risk for their respective firm (Sassen et al. 2016). An overconfident CEO understand the importance of reducing risk for avoiding management bias and regulatory compliance to avoid penalties so as to motivate companies to implement various risk reduction strategies, such as environmental, social and governance (ESG) disclosures, to avoid or reduce costs in the future. Investors can see the ability of the overconfident CEO based on information released by the firm, which consequently can affect stock volatility. When there is information that the firm discloses ESG disclosures, the news can cause stock volatility to decrease because of the direct influence of information on the expected return of the investor. In addition, ESG disclosure can change investor expectations of CEO overconfidence which will have an impact on the decline in stock volatility.

CEO overconfidence must realize that sometimes strategic decisions may not be fully driven by economic reasons, but in many cases, personal characteristics can explain some unwise decisions that can harm the company (Tang et al. 2016). Therefore, CEO understands the importance of reducing risk in relation to avoid management bias and compliance with regulations to avoid penalties so as to motivate companies to implement various risk reduction strategies, such as environmental, social and governance (ESG) disclosure, to avoid or reduce costs that will happen in the future. Therefore, CEO overconfidence will reduce firm risk through ESG disclosure.

ESG disclosure can help the overconfident CEO's ability to reduce the firm risk. ESG disclosure can help the overconfident CEO in providing firm information. Investors who do not know the role of CEO overconfidence can see when an overconfident CEO leads a firm, the firm will have good ESG disclosures. Therefore, the hypothesis tested:

H4: *CEO overconfidence* has a negative effect on firm risk with ESG disclosure as a mediating variable.

RESEARCH METHOD

Data and Research Sample

The research samples were manufacturing firms in Southeast Asian countries, which include Indonesia, Malaysia, the Philippines, Singapore and Thailand within the period of 2012-2016 because there are only few studies examining the Southeast Asian region. Second, there is ASEAN Economic Community program that caused the interest of foreign investors to invest in the Southeast Asian region higher. Third, there are regulators and exchanges in Asia-Pacific markets that shows an increased interest in promoting ESG integration by mandating or recommending disclosures. Because of that, research needs to be done regarding whether ESG disclosures in Southeast Asian firms affect the firm risk. This study involved manufacturing firms because firms in Southeast Asia consist of various industries with varying risk levels so that this study examines manufacturing firms because the risks faced by manufacturing companies tend to be the same and are expected to indicate the firms' risks well. Data were collected using secondary data. The annual reports of Indonesian firms were downloaded from IDX official website (www.idx.co.id). The annual reports of firms from other countries were downloaded from the official website of each firm. Datastream retrieval was also done by accessing the Economic and Business Data Center (PDEB) of the Faculty of Economics and Business, Universitas Indonesia (FEB UI). This study also used data of Gross Domestic Product (GDP) value and investor protection from the Worldbank website. The sample selection used purposive sampling technique with several criteria that are determined to suit the research objective. The criteria are: (1) manufacturing firms in Southeast Asia that are listed on the exchange; (2) manufacturing firms in

Southeast Asia listed on the stock exchange in 2012-2016 disclosing ESG; (3) firms in Southeast Asia that reported daily stock returns for the 2012-2016 period.

Research Model

This quantitative empirical research tests SEM analysis with a maximum likelihood estimator for CEO overconfidence on firm risk and ESG disclosure as a mediating variable with data software. This study uses CEO overconfidence as an independent variable, firm risk as the dependent variable, and ESG disclosure as a mediating variable. SIZE, ROA, VOLROA, LEV, MTB, dividend payment, GDP, investor protection were used as control variables for model 1. Besides, SIZE, ROA, LEV, GDP, and investor protection were employed as control variables for model 2. Model 1 used VOLROA and MTB as control variables because VOLROA was measured to see return volatility as a sign of uncertainty and MTB represents how companies can survive in the business they are running. This study used GDP and investor protection to control different countries that are used in this study. SIZE, ROA, VOLROA, LEV, MTB, dividend payment, GDP, investor protection can reduce firm risk and tend to disclose voluntary disclosure.

The regression equation model is as follows:

$$FR_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 ESG_{it} + \beta_3 SIZE_{it} + \beta_4 ROA_{it} + \beta_5 VOLROA_{it} + \beta_6 LEV_{it} + \beta_7 MTB_{it} + \beta_8 DIV_{it} + \beta_9 GDP_{it} + \beta_{10} INV_{it} + \theta_j + \upsilon_j + \epsilon_{it} \dots (1)$$

$$ESG_{it} = \alpha_0 + \alpha_1 CEO_{it} + \alpha_2 SIZE_{it} + \alpha_3 ROA_{it} + \alpha_4 LEV_{it} + \alpha_5 GDP_{it} + \alpha_6 INV_{it} + \theta_j + \upsilon_j + \epsilon_{it} \dots (2)$$

Where:

FR	: Firm Risk
CEO	: CEO overconfidence
ESG	: ESG Disclosure
SIZE	: Firm Size
ROA	: Return on Assets
VOLROA	: Volatility of ROA
LEV	: Debt to Asset Ratio
MTB	: Market to Book Ratio
DIV	: Dividend Payment
GDP	: Gross Domestic Product
INVP	: Investor Protection
θ	: Industry Dummy
υ	: Year Dummy
ε	: Error term

Research Variables and Variable Measurements

This study used CEO overconfidence as an independent variable, firm risk as the dependent variable, ESG disclosure as a mediating variable, and SIZE, ROA, VOLROA, LEV, MTB, dividend payment, GDP, investor protection as control variables.

Dependent Variable

The dependent variable in this study is firm risk. Firm risk variable is seen from the investors' perceptions by measuring market-based risk obtained from the total risk by measuring the volatility of stock returns for 12 months in the fiscal year, that is the standard deviation of the stock log return in the fiscal year for 12 months using a model from Sassen et al. (2016). This study used total risk because measuring total risk can reflect the overall risk.

Independent Variable

The independent variable in this study is CEO overconfidence. CEO overconfidence variables are obtained from the CEO overconfidence level, that is CEO who tends to overestimate investment because CEO who has overconfidence will be confident to invest more in innovation. CEO overconfidence also has the success rate of obtaining more patents and achieving greater innovative success for the R&D expenses incurred so as to increase

firm value and reduce firm risk (Hirshleifer et al. 2012). CEO overconfidence is measured using the research model of Kouaib and Jarboui (2016) by using excess investment, namely the residual value of the regression of total asset growth with sales growth, then measured by a dummy variable; 1 if the value of excess investment is greater than the median value of the industry for one year, and 0 otherwise. Based on Kouaib & Jarboui (2016), CEO overconfidence has the ability to make investments that exceed the growth of its operations so that in the future it will have higher growth by measuring industry-adjusted excess investment, that is the residual value of the regression of total asset growth on sales growth will be greater than the industry median. This study conducted panel data regression on total asset growth with sales growth per year period in all sample countries to obtain residual value. So, it becomes the limitation of the study because CEO overconfidence measurement, based on all samples, does not measure each country to compare residual values from regression total asset growth and total sales growth. After the residual value is obtained, the next step was to find the median value of the industry from the residual value of total asset growth with sales growth per year period in all sample countries to be compared with the firm's residual value. To obtain CEO overconfidence data, this study measured dummy variables by looking at the firm's residual value greater than the median value of the industry. If the residual value is greater than the median value of the industry, the CEO is considered overconfident, given a value of 1. On the other hand, if the residual value is smaller than the median value of the industry, the CEO is considered not overconfident, given a value of 0.

Mediating Variable

The mediating variable in this study is ESG disclosure. ESG disclosure variable was obtained from the ESG combined score from Thomson Reuters Eikon. This study

uses Thomson Reuters' ESG combined score because the ESG combined score has been designed transparently and objectively to measure ESG's performance, commitment and effectiveness in 10 main themes (emissions, environmental product innovation, human rights, shareholders, etc.) based on information reported by firms. This study uses an ESG combined score, which is the ESG score combined with ESG controversies, which is calculated further by discounting the ESG score for news controversies that materially affect the firm. If the firm has ESG controversies, it can reduce the ESG score and if the firm does not have ESG controversies, then the ESG combined score is similar to the ESG score. The maximum and minimum values that can be obtained from the ESG score are 100 and 0. The ESG score obtained from Thomson Reuters was calculated and available for all companies and the historical fiscal period in ESG Global Coverage. In other words, the ESG score is available again in fiscal 2002 for around 1,000 companies, especially the US and Europe (Eikon 2017). The ESG score assessment at Thomson Reuters can also provide descriptions of the 3 components of the ESG pillar, which are environmental, social, and governance. The environmental consists of resource use, emissions, and innovation. The social consists of workforce, human rights, community, and product responsibility. Meanwhile, the governance consists of management, shareholders, and CSR strategy.

Control Variables

This research used samples in the Southeast Asian region. The samples consist of several countries, which are Indonesia, Malaysia, the Philippines, Singapore and Thailand. Therefore, to control the state level, a control variable consisting of Gross Domestic Product (GDP) and investor protection (Wardhani 2009) is needed. In addition, it is because a diverse industry in a country also requires variables to control the industry and the year using industrial dummy variables and years

Control variables of ESG disclosure consist of five variables, namely:

Size

The size control variable is the size of the firm measured based on the natural logarithm of the firm's total assets. This firm size variable follows a study conducted by McCarthy et al. (2017) with the argument that large firms tend to have corporate social responsibility (CSR) activities so that they have an assessment related to ESG disclosures.

Profitability

Profitability is a determinant that is often tested in research related to ESG. Profitability is measured by return on assets (ROA), following a study conducted by McCarthy et al. (2017) with the argument that high profitability can provide resources to firms so that they can have a higher tendency to engage in corporate social responsibility (CSR) activities and have good corporate governance.

Leverage

Leverage is measured by a debt to total assets ratio (DAR). Based on research conducted by McCarthy et al. (2017), firm with high leverage will have incentives to disclose CSR and sustainability reporting so that they have a good impact on the firm's social performance.

Gross Domestic Product

Gross Domestic Product (GDP) is one of the variables needed to control a country. The indicator used to determine a country's economic growth is GDP so that information about GDP is expected to describe a country. GDP is the total value of the production of goods and services within a country for one year. This GDP calculation includes profits and income generated by non-residents and foreign companies in the country, but not including residents and companies from the countries concerned in other countries. Therefore, the high GDP is expected to increase ESG disclosure. Measurement of the GDP variable is done by measuring the natural

logarithm of GDP per capita obtained from Worldbank

Investor Protection

Investor protection is also one variable that is used to control a country. Investors protection in each country is different so that they are expected to provide information about the countries' governance level. Data for investor protection measurement are obtained from Worldbank. From investor protection, it is expected that decisions taken by the executives can provide benefits to the stockholders. One of the decisions taken is to reveal ESG more. Control variables of firm risk consist of eight variables, namely:

Size

The size control variable is the size of the firm which is measured based on the log of total assets of the firm. The size variable follows a study conducted by Sassen et al. (2016) with the argument that large companies tend to have assessments related to ESG. Meanwhile, large companies can also reduce firm risk (Sirsat and Sirsat 2016).

Profitability

Profitability is a determinant that is often tested in research on ESG and firm risk. Profitability is proxied by return on assets (ROA). High profitability can increase a firm's ability to carry out social activities and have good corporate governance so that ESG assessment will tend to be good and can reduce firm risk.

VOLROA

VOLROA control variable is the volatility of ROA obtained from the standard deviation of ROA for 5 years. ROA volatility is measured to see return volatility as a sign of uncertainty. ROA volatility has a positive influence on firm risk because investors see ROA volatility as bad news for investors. So, investors tend not to invest.

Leverage

Leverage is measured by debt to asset ratio obtained from total debt divided by total asset. Firm with high leverage will have incentives to disclose CSR and sustainability reporting. Thus, they have a good impact on the firm's social performance. This can be due to pressure and encouragement from funders so that the firm will have a good ESG assessment and can reduce the firm's risk. In addition, high leverage is assumed by the firm to have a project that is expected to provide benefits in the future so that it can reduce risk.

Market to Book Ratio

A high capitalization value illustrates that a firm has a good performance. Book value indicates how companies can survive in the business they are running, so that the higher the market to book ratio can reduce the risk of the firm (Aghazadeh et al. 2018).

Dividend Payment

Dividend payment is measured by calculating dividend per share divided by earnings per share. Dividend payment is the one investors expect when investing in a firm. Dividend payments can reduce the firm's risk because investors will continue to invest and the investors also believe the firm will pay dividends in the next period.

Gross Domestic Product

Gross Domestic Product is measured by natural logarithm of GDP per capita. To control risk in a country, this study used Gross Domestic Product (GDP). With the high GDP, the value of the welfare of a country is also considered high and is expected to reduce the risk of the firm.

Investor Protection

Data of investor protection were obtained from data of each country from worldbank. To control risk in a country, this study also used Investor Protection. Investor protection is expected to reduce the firm risk by looking at the volatility of the stock that is down because investors feel safe when investing. The operationalization of variables can be seen in Table 1.

Table 1
Operasionalization of Variables

Variable	Definition of Operasionalization
Firm Risk	standard deviation of the year stock return for 12 months from April to March
CEO overconfidence	dummy variable, 1 if the value of excess investment (residual value from regression total asset growth and sales growth) is greater than the median industry value for one year, and 0 otherwise
ESG	ESG combined score from Thomson Reuters database
SIZE	Natural logarithm Total Assets
ROA	$\frac{\text{Net Income}}{\text{Total Assets}}$
VOLROA	Standard deviation from ROA for 5 years
LEV	$\frac{\text{Total Assets}}{\text{Market Capitalization}}$
Market to Book Ratio	$\frac{\text{Total Book Value}}{\text{Dividend per Share}}$
Dividend Payment	Earnings per Share
GDP	Natural logarithm of GDP per capita
INVP	Investor Protection for each country from worldbank data
⊕	Dummy industry, 1 for industrial companies, and 0 for others.
⊖	Consumer discretionary as a reference industry
⊘	Dummy year, 1 for firm observation year. 2012 is the reference year

Table 2
Goodness of Fit Analysis

Fit statistics	Value	Category
p > chi2	0.000	p>chi2 < 0.05
CFI	0.248	CFI > 0.90

RESULTS AND ANALYSIS

Goodness of Fit Analysis

This study used the SEM model to obtain an unbiased conclusion and fulfill the model feasibility test. The Goodness of Fit test was carried out as described in table 2.

As table 2 indicates, the research model in the study is good and is in accordance with the data because the value of $p > \chi^2 < 0.05$ is 0.000. In addition, the CFI test shows that the results of this study can perform well even when the sample size is small.

Descriptive Statistics

This study only involved five countries, consisting of Indonesia, Malaysia, the Philippines, Singapore and Thailand because only such countries

disclose ESG. The results of sample collection are presented in the table.

As table 3 shows, only a few manufacturing firms revealed ESG, which are 85 firms (12%). This research was conducted from 2012 to 2016 using balanced data so that it must reduce.

As table 3 shows, only a few manufacturing firms revealed ESG, which are 85 firms (12%). This research was conducted from 2012 to 2016 using balanced data so that it must reduce incomplete firm samples in revealing 5-year ESG scores consisting of 10 companies (11%). In addition to achieving the research criteria, this study filtered out outliers and incomplete financial data, such as manufacturing companies whose shares are not active. Therefore, the final samples obtained were 225 manufacturing companies for 5 years.

Tabel 3
Data Collection

Criteria	ID	MY	PH	SG	TH	Total
Manufacture firms in Southeast Asia	148	111	79	34	328	700
Manufacture firms that disclose ESG	19	25	12	13	16	85
Manufacture firms that have incomplete data of ESG score for 5 years	(2)	(4)	-	-	(4)	(10)
Manufacture firms that have incomplete data in financial data	(7)	(7)	(7)	(7)	(2)	(30)
Total Sample	10	14	5	6	10	45
Total observation (5 years)	50	70	25	30	50	225

ID: Indonesia; **MY:** Malaysia; **PH:** Filipina; **SG:** Singapura; dan **TH:** Thailand

Table 4
Descriptive Statistics of CEO overconfidence

Variable	Total	Dummy = 0	Dummy =1
CEO	225	122	103
ESG		46.47	50.96
SIZE		22.51	22.57
LEV		0.25	0.29

CEO: CEO overconfidence; **ESG:** ESG Disclosure; **SIZE:** Firm Size; **LEV:** Debt Asset Ratio

Source: Prepared authors (2018)

Table 4 presents a descriptive analysis of the CEO overconfidence variable. From the total sample of 225 firms, 122 firms have CEO who are not overconfident, indicating that in manufacturing firms in Southeast Asia, CEOs tend not to be overconfident. Overconfident CEOs have a higher ESG disclosure score, a larger firm size, and a greater level of debt asset ratio than those who are not confident. This shows that CEO overconfidence plays an important role in providing signal to market by disclosing ESG which reduces the firm's information risk. The size of the firm is also a determining factor of CEO having the nature of overconfident because large firms tend to have large assets. In addition, overconfident CEOs also have a high debt asset ratio because they believe that in the future they can pay off their obligations by making innovations and investments. Based on the research data, it can be concluded that the country that has the most CEO overconfidence is Indonesia with 29 companies, Thailand has 26 companies, Malaysia has 23 companies, the Philippines

has 15 companies, and the least is Singapore with 10 companies.

Table 5 presents a descriptive analysis of the variables used in the study, including ESG disclosure, firm risk and control variables. According to descriptive statistics conducted on ESG scores, the average ESG score revealed by firms tends to be high. However, ESG disclosure is still very low with a minimum value of 14.9717. This may be because the samples of this study only include companies classified as not disclosing mandatory ESG but the voluntary one. Based on the data, the minimum ESG score occurred in 2012 and the maximum value of ESG score occurred in 2015 were obtained. So, it can be concluded that the firm is trying to express non-financial performance even better. The firm's average risk is 0.0116 with a minimum value of 0.000068 and a maximum of 0.0582 which indicates that the risks of manufacturing firms in Southeast Asia tend to vary. This may be due to the different risk levels of each country.

Table 5
Descriptive Statistics

Variable	Mean	Median	SD	Min	Max
ESG	48.5310	46.8775	15.8889	14.9717	87.1631
Firm Risk	0.0116	0.0090	0.0103	0.000068	0.0582
SIZE (in USD)	175010225	133516610	4944729615	480982.942	3357353361
ROA	0.1149	0.0882	0.1111	-0.0549	0.5644
VOLROA	0.0505	0.0319	0.0635	0.0001	0.4960
LEV	0.2737	0.2728	0.1473	0.0064	0.6053
MTB	2.2244	2.004	1.3916	0.2162	7.8543
DIVPAYMENT	0.0229	0.0224	0.0194	0	0.1029
GDP	12505.9659	5941.8407	16164.8407	2581.8185	56336.0723
INVP	7.2728	7.7	1.3971	4	9.3

ESG: ESG Disclosure; **Firm Risk:** Firm Risk; **CEO:** CEO overconfidence; **SIZE:** Firm Size; **ROA:** Return on Assets; **VOLROA:** Volatility of ROA; **LEV:** Debt Asset Ratio; **MTB:** Market to Book Ratio; **Div Payment:** Dividend Payment; **GDP:** Gross Domestic Product; **INVP:** Investor Protection

Source: Prepared authors (2018)

Empirical Results

The results of empirical research can be seen in Table 6 which evaluates the results of SEM analysis on each variable hypothesized in this study. Based on Table 6, the results support hypotheses 3 and 4 which show that ESG disclosure has a negative effect on firm risk and CEO overconfidence has a negative effect on firm risk, which is mediated by ESG disclosures. However, this study does not support hypothesis 1 because the result is not significant, that CEO overconfidence has a negative effect to firm risk. This study also supports hypothesis 2 which can be seen in model 2 showing that CEO overconfidence has a positive effect on ESG disclosure.

Results Analysis

CEO overconfidence and Firm Risk

From the results of testing hypothesis 1, it can be concluded that this study does not support the negative effect of CEO overconfidence on firm risk. This finding provides evidence that firm risk is affected by behavioral managerial biases (Adam et al. 2015). Behavioral managerial biases have been shown to affect corporate decisions. CEO Overconfidence bias can cause distortions in corporate decisions. Overconfident CEOs make decisions based on

irrational decisions that occur under certain conditions of uncertainty and risk (Pak and Mahmood 2015). In an uncertain condition, biased overconfident CEOs tend to make decisions different from usual decisions.

The results of this study are in line with financial behavior which analyzes the effect of psychology on investors and its impact on the market. Investors in the decision-making process show irrational. So, investors are able to make wrong decisions or improper analysis. Biased investors tend to make decisions different from usual decisions they make when investors see the firm has an overconfident CEO who will disclose more and reduce firm risk; however, biased investors have their own decisions and cause systematic errors (Im and Oh 2016).

CEO overconfidence and ESG Disclosure

From the results of testing hypothesis 2, it can be concluded that the positive effect of CEO overconfidence to ESG disclosures was supported. This finding supports the research of Petrenko et al. (2016) which found that CEO overconfidence has a positive effect on ESG disclosure. Overconfident CEOs will try to improve the firm performance so that the decision in revealing firm performance, especially its non-financial performance such as ESG disclosure will

Table 6
Regression Analysis Results

	$FR_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 ESG_{it} + \beta_3 SIZE_{it} + \beta_4 ROA_{it} + \beta_5 VOLROA_{it} + \beta_6 LEV_{it} + \beta_7 MTB_{it} + \beta_8 DIV_{it} + \beta_9 GDP_{it} + \beta_{10} INVP_{it} + \theta_j + \varphi_j + \varepsilon_{it}$			$ESG_{it} = \alpha_0 + \alpha_1 CEO_{it} + \alpha_2 SIZE_{it} + \alpha_3 ROA_{it} + \alpha_4 LEV_{it} + \varepsilon_{it}$		
	Dependent Variable: Firm Risk			Dependent Variable: ESG		
Variable	Predict	Coef	Prob	Predict	Coef	Prob
Direct effect						
CEO	-	-0.00067	0.312	+	4.473846	0.017**
ESG	-	-0.00012	0.006***			
SIZE	-	0.00003	0.485	+	0.551582	0.328
ROA	-	-0.00354	0.31	+	-13.6383	0.077
VOLROA	-	0.00309	0.395			
LEV	-	0.00006	0.495	+	20.21635	0.004***
MTB	-	-0.00050	0.181			
Div Payment	-	0.10055	0.04***			
GDP	-	0.00612	0.328		8.327363	0.321
INVP	-	-0.00183	0.010*		0.784443	0.255
Cons	?	0.02801	0.122	?	13.101	0.341
Indirect Effect						
CEO Mediate by		-0.00055				
ESG	-		0.05**			
INDUSTRY		Yes			yes	
YEAR		yes			yes	
Obs			225			
R ² overall			0.2044			
Prob			0.0000 ***			

***significant 1%; **significant 5%; *significant 10%

ESG: ESG Disclosure; **Firm Risk:** Firm Risk; **CEO:** CEO overconfidence; **SIZE:** Firm Size; **ROA:** Return on Assets; **VOLROA:** Volatility of ROA; **LEV:** Debt Asset Ratio; **MTB:** Market to Book Ratio; **Div Payment:** Dividend Payment; **GDP:** Gross Domestic Product; **INVP:** Investor Protection

Source: Prepared authors (2018)

continue to be carried out because investors prefer to analyze the non-financial performance of the firm. When the firm has revealed its non-financial performance, investors consider that the firm has a good reputation so that investors will continue to invest and can increase the value of the firm.

Based on upper echelon theory, the decision taken by the CEO is influenced by psychological aspects. Overconfident CEOs have their own discretion making decisions because they have empathy when looking at it from the perspective of investors, employees, customers, the environment, and other stakeholders (Waldman and Siegel 2008). A good level of disclosure is inseparable from the role of overconfident CEOs in making decisions to disclose ESG so that it can increase ESG disclosure. The existence of CEO overconfidence in the composition of the firm directors is ex-

pected to influence the policies taken by the firm. CEO overconfidence plays an important role in decision making; one of which is in disclosing ESG. The aim of the firm to improve ESG disclosure is to avoid or reduce the risk of class actions and related financial fines (Murphy and McGrath 2013). In addition, overconfident CEOs also see ESG disclosure as a very important factor for investors to consider when they want to invest because investors are more likely to consider non-financial aspects.

ESG disclosure is expected to provide stakeholders with equal access to financial information and other information from a firm so as to reduce information asymmetry that affects the level of return (Dhaliwal et al. 2012). Investors and clients expect greater responsibility and transparency from the firm so that when investors invest, they will get big returns.

ESG Disclosure and Firm Risk

From the results of testing hypothesis 3, it can be concluded that the effect of ESG disclosure on firm risk was supported. This finding supports research by Sassen et al. (2016) which found that ESG disclosure has a negative effect on firm risk. It can be seen that the greater the ESG disclosure, the smaller the stock returns volatility is. Through ESG disclosures carried out by the firm, investors see the firm has made an effort to reduce the impact of environmental damage as a form of social responsibility and good governance so that it can reduce costs that will arise in the future and can help the firm reduce risk.

Based on stakeholder theory, the existence of ESG disclosures is carried out to meet the needs of various stakeholders so as to improve the welfare of employees, customers, communities and investors. In addition, the high level of Corporate social performance (CSP) can reduce financial risk because high CSP levels can encourage more stable relationships with the government and financial community (Mcguire et al. 1988). Thus, a higher CSP has the potential to increase shareholder value by reducing firm risk so that it can reduce capital costs (Plumlee et al. 2015). Social performance and, more specifically, the values associated with external stakeholders (community, customers) seem to be the most relevant factor in the efforts to reduce firm risk so that CSR programs are very important to be carried out by the firm.

Some previous studies also prove that non-financial performance disclosures can reduce firm risk. Gramlich and Finster (2013) found that sustainability reporting disclosure can reduce the level of risk. Bouslah et al. (2013) also found that employee relations, corporate governance and society negatively affect firm risk. With the disclosure of non-financial performance, the firm ensures that sustainability issues and non-financial information are fully available so that the firm carries out the role of being socially responsible and is expected to reduce firm risk. In addition,

because information is fully available, the description of the firm performance becomes more transparent so that it can reduce information asymmetry and firm risk.

CEO overconfidence, ESG Disclosure, and Firm Risk

From the results of testing hypothesis 4, it can be concluded that the indirect effect of ESG on CEO overconfidence and firm risk was supported. It can be interpreted that ESG disclosure can help overconfident CEOs' ability to reduce firm risk. The existence of ESG disclosure can help the overconfident CEOs' role in providing firm information. Investors who do not know the role of an overconfident CEO can see that when the CEO leads a firm, the firm has good ESG disclosures. In addition, with ESG disclosure, the overconfident CEOs take more decisions that can reduce firm risk. The decision that overconfident CEOs can take is to disclose ESG because it is considered as a policy choice and the best action to reduce firm risk. When a firm has disclosed voluntary disclosures, which are disclosures about non-financial performance, investors consider it to be good news. So, they will continue to invest and this can reduce firm risk in the future.

ESG disclosure can bridge the firm's stakeholders to be more loyal. Based on signaling theory, one type of information issued by a firm that can be a signal to outside parties is disclose voluntary disclosures. One of the voluntary disclosures that can provide a good signal for investors is ESG disclosure (Sassen et al. 2016). ESG disclosure can provide a good signal for investors because it can reduce firm risk so that investors will tend to invest. In addition, investors will also react when the firm is led by an overconfident CEO because it is good news. The overconfident CEO will tend to disclose ESG because he or she views ESG disclosures as important to the business so that it can reduce stock volatility and consequently will receive support from stakeholders. The existence of ESG disclosure can help the overconfident CEO to

Table 7
Regression Analysis Results

Variable	Dependent Variable: Firm Risk		
	Predict	Coef	Prob
Indirect effect			
CEO mediate by Environmental	-	-0.000460	0.070*
CEO mediate by Social	-	-0.000264	0.138
CEO mediate by Governance	-	-0.000206	0.154

Source: Prepared authors (2018)

provide more information to stakeholders so that there is no information asymmetry and stock volatility can be reduced.

It can be concluded from this study that investors cannot see the role of CEO overconfidence directly but investors will look for signals by looking at whether the firm discloses ESG or not. An overconfident CEO understands the importance of decision making to reduce stock volatility and to avoid information asymmetry. Therefore, an overconfident CEO will implement a strategy to reduce risk by disclosing voluntary disclosures namely ESG disclosures.

Control Variable Analysis

From the results of testing hypothesis 2, it can be concluded that control variables for SIZE and DER have a positive effect on ESG. However, ROA has a negative effect on ESG. This study was not supported Petrenko et al. (2016) because the results of testing control variables in that study are having a positive effect. With high profitability, companies tend to make a lot of investments so that they may override ESG disclosures (Sassen et al. 2016).

From the results of testing hypothesis 1, 3, and 4, based on table 6, it can be concluded that ROA, MTB, and INVP have a negative effect on firm risk. However, SIZE, VOLROA, DER, DIV PAYMENT, GDP have a positive effect on firm risk. Large companies are considered to increase firm risk because large companies tend to innovate even though the innovation in the future will succeed or not (Sirsat and Sirsat 2016). High profitability is considered to be able to increase the company's ability to conduct social activities and have good cor-

porate governance so that the ESG disclosure will tend to be good and can reduce firm risk. When ROA volatility is high, investors will see this as bad news, so investors tend not to want to invest. A high level of debt is considered by investors as a sign that the company has a high risk because it is feared that the company will not be able to pay off its debts in the future. With the high capitalization value of the company, investors assume that they will get a large profit in the future so that it can reduce firm risk (Aghazadeh et al. 2018). Dividend payments provided by companies may not have much impact on investors because investors can still get capital gains. The existence of GDP can be a reference for a company to run its business, when GDP is high, investors see the company has a high risk may be due to intense competition between companies. Investor Protection can reduce company risk because investors feel safe when investing.

Additional Analysis

Additional analysis tests are needed to analyze ESG measurements based on ESG scores for each component, namely environmental, social, and governance. Measurement based on environmental, social, and governance is only to measure the mediating role of ESG disclosure alone. The consideration for analyzing additional analysis is to see what components most influence the mediating role of ESG disclosure. Additional analysis results can be seen in Table 7.

As Table 7 indicates, the mediating role of ESG disclosure is only seen in the environmental component. This is probably because most firms that report ESG in the

Southeast Asia Region are companies that are engaged in the mining, coal, and oil industries so that many firms are more concerned with their environmental responsibility. The firms will avoid environmental damage caused by exploitation of resources, greenhouse effect, excessive consumption of water and electricity to avoid costs that will arise in the future.

CONCLUSIONS

This study aims to examine the effect of CEO overconfidence on firm risk, and see the effect of ESG disclosure as a mediating variable on the effect between CEO overconfidence and firm risk. Based on the research conducted with a sample of 225 manufacturing firms in Southeast Asian countries, which include Indonesia, Malaysia, the Philippines, Singapore and Thailand within the 2012-2016 research period, this study reveals that CEO overconfidence has a significant positive effect on ESG disclosure, ESG disclosure has a significant negative effect on firm risk, and CEO overconfidence has a significant negative effect on firm risk indirectly mediated by ESG disclosures. However, this study also found that CEO overconfidence does not affect firm risk seen from insignificant results of the negative effect of CEO overconfidence on firm risk directly. Investors cannot see the role of CEO overconfidence directly but they will look for signals by looking whether or not the firm releases ESG disclosures. An overconfident CEO understands the importance of decision making to reduce stock volatility and avoid information asymmetry. Therefore, the CEO will implement a strategy to reduce risk by disclosing voluntary disclosures namely ESG disclosures.

This research has implications that can become suggestions for several related parties. First, investors can use ESG disclosure as a basis for decision making because firms that disclose ESG disclosure will give a good signal to investors. Second, research opportunities on ESG disclosure are also

still wide open for academics. ESG disclosure can be examined based on data from other research data providers such as Bloomberg or Dow Jones Sustainability Index. ESG can also be examined by dividing each ESG component (Environmental, Social, and Governance). Third, firms can disclose ESG to gain a good reputation from investors because firms that disclose ESG disclosure will concern about cost that will arise in the future in order to reduce firm risk and regulators need to make regulations that require firms to disclose mandatory ESG. This study has some limitations. The CEO overconfidence measurement is based on all samples; it does not measure each country to compare residual values from regression total asset growth and total sales growth. ESG disclosure data in this study do not use disclosures commonly used by investors, but the ESG disclosure data were obtained from an assessment based on Thomson Reuters. Therefore, when taking data from other research data providers can have different research results. The data obtained also tends to be few and the measurement for CEO overconfidence and firm risk is based on just one measurement.

Based on the limitations, this research provides suggestions for further research. Further research can analyze the firm risk variables with other risk measures, such as systematic risk or idiosyncratic risk. Future research can develop this research with samples of other countries such as in the Middle East or East Asia Region and in a longer period of time because more firms will disclose ESG. Future research can examine ESG disclosures by obtaining data from other research data information such as Bloomberg, the Dow Jones Sustainability Index, and so on. Future studies can also examine CEO overconfidence measurements based on each country per year.

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