1. INTRODUCTION

Corporate risk refers to any opportunity or prospect, or any hazard, danger, harm, threat, or exposure, that has already impacted a company or that may impact a company in the future (Linsley and Shrives, 2006, p. 389). The recent global financial crisis has significantly reignited the debate and has triggered a regulatory response, in particular, regarding the effectiveness of corporate risk management and disclosure practices (Probuhodono et al., 2012; Ntim et al., 2013). A skilful risk management can provide benefits to the company that prevent the occurrence of the risk and reduce the consequences of a loss. One of several important aspects of managing corporate risk is risk disclosure, which is an integral component of accountability (Allini et al., 2016).

Corporate governance plays an important role in supporting companies in enhancing accountability, transparency, and clarity of risk disclosure. According to agency theory, risk disclosure is one mechanism to reduce information asymmetry between managers and stakeholders, mitigate agency problems, narrow the information gap, and improve the stewardship function (Jensen and Meckling, 1976; Ashbaugh-Skaife et al., 2006; Moumen et al., 2015). Also, communicating risk information to stakeholders can help a company manage changes, lower the cost of capital, determine its risk profile, estimate market value, and can serve as a guideline concerning the flow of business in the future (Beretta and Bozzolan, 2004; Abraham and Shrives, 2014; Eshlhandiy and Neri, 2015).

Numerous academic studies have shown that the monitoring functions from corporate governance significantly affect the level of disclosure. Nevertheless, there is still very limited research concerning the influence of corporate governance on risk disclosure (Chang et al., 2014; Eshlhandiy and Neri, 2015). Mostly, research on risk disclosure has been conducted in Western and developed countries (Amran et al., 2009; Al-Hadi et al., 2016). Current studies suggest that the relationship between corporate governance and voluntary disclosure is affected by country locations (Samaha et al., 2015). The present study addressed this gap by investigating the following research questions: (1) what is the extent of risk disclosure; and (2) whether corporate governance characteristics, including audit committees, an independent board of commissioners, managerial ownership, and institutional ownership, affect risk disclosure.

Indonesia represents an interesting case from an emerging country to explore the practice of risk disclosure.
disclosure. The Indonesia Stock Exchange (IDX)/Bursa Efek Indonesia (BEI) requires listed companies to disclose risk information in annual reports. The regulation of risk information disclosure is dictated in Statement of Financial Accounting Standard 60 (revised 2014)/PSAK 60. In addition, the Indonesia Financial Services Authority/Otoritas Jasa Keuangan (OJK) has launched risk management regulations, namely, Regulation Number 17/2014, Number 1/2015, and Number 18/2016. These regulations require that companies running their business activities in financial services, financial conglomerations, commercial banking, and non-banking are required to implement the regulations. The results of previous studies offer insights into risk disclosure practices both theoretically and practically.

2. LITERATURE REVIEW

Agency theory has been widely used as a framework in explaining the relationship between corporate governance practices and voluntary risk disclosure (Allegrini and Greco, 2013). Agency theory suggests the existence of corporate governance as a mechanism of supervision within the firm, which can improve the quality and credibility of a company. For example, the existence of independent commissioners and an audit committee are expected to reduce agency conflicts arising as a result of the separation of objectives and interests between managers and shareholders. Companies with high agency costs are more likely to reduce them by implementing monitoring activities via corporate governance structures and voluntary disclosures (Jensen and Meckling, 1976; Watts and Zimmerman, 1983).

The majority of previous risk disclosure studies have been conducted in Western and developed countries, such as the UK (Solomon et al., 2002; Linsley and Shrives, 2006); Italy (Beretta and Bozzolan, 2004; Allini et al., 2016); Spain (Domínguez-Rodríguez and Noguera-Gálvez, 2014; Hernández-Madrigal et al., 2015); Portugal (Oliveira et al., 2013); Japan (Mohobot, 2005; Konishi and Mohobot, 2007); and Australia (Taylor et al., 2010; Buckby et al., 2015). Abraham and Cox (2007) investigated the relationship between the quantity of narrative risk information in corporate annual reports of UK FTSE 100 companies. They found that corporate risk disclosure is negatively related to ownership by institutions. Also, the results showed that the number of executives and independent directors is positively related to the extent of corporate risk disclosure. More recently, Elzahar and Hussainey (2012) studied narrative risk disclosure in the interim reports of 72 companies in the UK. The results suggested that type of industry, size of company, and institutional ownership significantly influence the company’s risk disclosure.

Only a few previous empirical studies have been conducted in emerging countries (see, for example, Amran et al., 2009; Al-Maghzom et al., 2016). Hasan (2009) examined the extent of risk disclosure in 41 companies in the United Arab Emirates (UAE). His results showed that risk disclosure is related with industry type, but firm size does not affect risk disclosure. Raemaekers et al. (2015) investigated risk disclosure practices after the implementation of the King Code on Corporate Governance (King III) by large firms listed on the Johannesburg Stock Exchange (JSE). Their findings suggest that, although there has been an increase in disclosure, however, the disclosure of risk is still just an exercise rather than an effective stakeholder communication. Mokhtar and Mellett (2013) documented the extent of mandatory and voluntary risk disclosure in the annual reports of Egyptian companies. They found that the size of the board and ownership concentration are determinants of risk disclosure.

3. HYPOTHESES

3.1. Audit committee

The audit committee is empowered to function, on behalf of the board of directors, by assuming an important oversight role in the corporate governance intended to protect investors and ensure corporate accountability (Rezaee et al., 2003, p. 536). International best practices suggest that the tasks of the audit committee primarily focus on financial reporting, internal and external auditing, and risk management (Indonesia Financial Services Authority (OJK), 2014). The size of the audit committee may play a significant role in the monitoring mechanism as it may provide a source of expertise and experience. Other audit committee members’ tasks include ensuring that decisions made by management are aligned with the shareholders’ goals. The committee is not only tasked with monitoring crucial information (Allegrini and Greco, 2013), but also preventing potential litigation and reputation risks faced by a firm (Zhang et al., 2007). Thus, it can increase the supervisory power of commissioners. The majority of past studies suggest that an audit committee is positively related with voluntary disclosure (Barako et al., 2006; Saha and Akte, 2013; Samaha et al., 2015). However, some studies do not find such an association (Mangena and Piko, 2005; Allegrini and Greco, 2013; Al-Maghzom et al., 2016). The present study expects that the audit committee plays a significant role in enhancing the quality of risk disclosures.

H1: There is a positive association between the number of audit committee members and the extent of voluntary risk disclosure.

3.2. Independent board of commissioners

According to Article 108, paragraph 1, of the Indonesia Capital Market Law (1995), the Board of Commissioners (BoC) is responsible for supervising management policies, running the management in general with regard to both the company and the company’s business, and providing advice to the Board of Directors (BoD). In essence, the role of the BoC is to supervise and not to manage. The BoC sets the company’s strategic direction and determines the amount and type of risks. Commissioners who are independent can make a substantial contribution to important decisions. The presence of independent commissioners may give investors additional confidence concerning a company’s performance (Indonesia Financial Services Authority (OJK), 2014). Therefore, the appointment of independent commissioners will have a positive effect on a company.
Empirical evidence shows mixed results regarding how independent commissioners influence the level of corporate risk disclosure. Some prior studies found a positive relationship between independent commissioners and disclosure (Beasley et al., 2005; Abraham and Cox, 2007; Barakat and Hussainey, 2013), while other studies found a negative relationship (Eng and Mak, 2003). However, some previous studies did not find any relationship (Haniffa and Cooke, 2002; Allegrini and Greco, 2013; Dominguez-Rodriguez and Noguera-Gámez, 2014; Hernández-Madrigal et al., 2015; Lundqvist, 2015). Despite the mixed results, in accordance with agency theory, this study expects that independent commissioners are positively related with risk disclosure. The greater the independence of a commissioner, the better he or she will be in responding to stakeholders’ demands to provide a higher quality of risk disclosure.

H2: There is a positive association between the presence of independent commissioners and the extent of voluntary risk disclosure.

3.3. Institutional ownership

Agency theory proposes that a larger number of shares owned by institutional shareholders will create a better monitoring mechanism from external parties. The greater monitoring is expected to reduce information asymmetry. In addition, the structure of ownership affects the level of supervision of the company, and therefore, it will affect the level of company disclosure. Barako et al. (2006) found a positive relationship between institutional ownership and voluntary disclosure in Kenyan companies. However, Saha and Akte (2013) did not find a significant relationship between institutional ownership and voluntary disclosure in Bangladeshi firms.

H3: There is a positive association between institutional ownership and the extent of voluntary risk disclosure.

3.4. Managerial ownership

According to agency theory, companies that have a higher managerial ownership composition tend to reveal less information to shareholders. This is because the manager has a lower incentive to meet the demands of shareholders through a voluntary risk disclosure. Prior studies have documented the relationship between managerial ownership and risk disclosure. Probohudono et al. (2012) noted that managerial ownership is negatively related with the business risk of manufacturing companies. The higher proportion of managerial ownership in a firm may thus reduce the desire of companies to disclose risks (Mühkinnen, 2012). However, Saha and Akte (2013) found a positive significant relationship between managerial ownership and voluntary disclosure in Bangladeshi firms.

H4: There is a negative association between managerial ownership and the extent of voluntary risk disclosure.

3.5. Firm size

Most previous studies suggest that large firms are more likely to disclose information. Larger companies have more complexity in terms of their business cycles. As a consequence, large companies face higher business risks than smaller ones. Large companies tend to avoid taking on a high level of risk; therefore, larger company can increase investor confidence and reduce political sensitivity (Hasan, 2009). Also, larger firms have more stakeholders who would be interested in the performance of the company (Amran et al., 2009). Larger firm tend to increase the likelihood that the events that threaten the company would be different in terms of context, scope, and level (Beasley et al., 2005). The majority of the research evidence suggests that the relationship between the size of the company and voluntary risk disclosure is positive (Eng and Mak, 2003; Beasley et al., 2005; Barako et al., 2006; Linsley and Shives, 2006; Dobler et al., 2011; Mühkinnen, 2012; Elshandidy et al., 2015; Al-Hadi et al., 2016).

H5: There is a positive association between the size of the firm and the extent of voluntary risk disclosure.

3.6. Financial performance

Previous studies on voluntary disclosure in the literature note that the relationship between financial performance, which is proxied by a firm’s profitability, and risk disclosure is complex (Dominguez-Rodriguez and Noguera-Gámez, 2014). For example, several studies have documented the following mixed results: a positive relationship (Mohobbot, 2005; Amran et al., 2009; Taylor et al., 2010; Ntim et al., 2013), a negative relationship (Elshandidy et al., 2015), and no significant relationship (Barako et al., 2006; Allegrini and Greco, 2013; Martikainen et al., 2015).

H6: There is a positive association between financial performance and the extent of voluntary risk disclosure.

4. RESEARCH METHODS

This study evaluated companies listed on the Indonesia Stock Exchange (IDX) during the period 2013. A purposive sampling method was used with the criteria as follows: (1) the company published 2013 annual reports; and (2) it has complete data related to risk information, its board, its audit committee, ownership, and other data. The data were obtained from the annual reports, the companies’ websites, and Bloomberg. Table 1 provides the sample selection.

Table 1. Sample selection

<table>
<thead>
<tr>
<th>Criteria</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of public listed companies in 2013</td>
<td>445</td>
</tr>
<tr>
<td>Number of companies that did not disclose risk information</td>
<td>(125)</td>
</tr>
<tr>
<td>Number of companies that did not have managerial ownership data</td>
<td>(202)</td>
</tr>
<tr>
<td>Final sample</td>
<td>118</td>
</tr>
</tbody>
</table>

This study employs a multivariate regression analysis, which is used to examine the influence of the independent variables on the dependent variable. This analysis also measures the strength of a relationship between these variables, and it shows the direction of the relationship. The regression equation (1) is as follows:
The dependent variable is measured by using the content analysis method with the unweighting disclosure index approach. The score will be 1 if the company disclosed information as determined in check list items, and 0 will be given if it is not disclosed. Table 2 provides the disclosure check list items as developed by referring to the Indonesia Financial Services Authority (OJK), Linsley and Shrives (2006), and Amran et al. (2009).

Table 2. Disclosure check list items

<table>
<thead>
<tr>
<th>Risk category</th>
<th>Risk details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational risk</td>
<td>(6) Customer satisfaction, (7) Product, (8) Development, (9) Efficiency and</td>
</tr>
<tr>
<td></td>
<td>performance, (10) Sourcing, (11) Stock obsolescence and shrinkage, (12)</td>
</tr>
<tr>
<td></td>
<td>Product and service failure, (13) Environmental, Health and safety, (14)</td>
</tr>
<tr>
<td></td>
<td>Change readiness, (15) Outsourcing, (16) Performance incentives, (17)</td>
</tr>
<tr>
<td></td>
<td>Communication, (18)</td>
</tr>
<tr>
<td>Empowerment risk</td>
<td>(19) Integrity, (20) Access, (21) Availability of infrastructure,</td>
</tr>
<tr>
<td>Information processing and</td>
<td>(22) Risk-management policy, (23) Management and employee fraud, (24)</td>
</tr>
<tr>
<td></td>
<td>Planning, (33) Life cycle, (34) Performance measurement, (35) Regulatory,</td>
</tr>
<tr>
<td></td>
<td>and (36) Sovereignty and political</td>
</tr>
</tbody>
</table>

1 = if item disclosed; 0 = otherwise
Risk disclosure index (RDI) = number of items disclosed by firm divided by total items (38 items)


5. RESULTS AND DISCUSSION

Based on the results of the descriptive statistics in Table 3, the risk disclosure index’s mean is 32%, with a minimum value of 13% and a maximum of 75%. This indicates that the extent of risk disclosure of public companies in Indonesia is still relatively low. With respect to the size of the audit committee, on average, firms have three members. This average just meets the minimum requirement mandated by the Indonesia Financial Services Authority (OJK).

Table 3. Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDI</td>
<td>118</td>
<td>.13</td>
<td>.74</td>
<td>.32</td>
<td>.13</td>
</tr>
<tr>
<td>AC</td>
<td>118</td>
<td>3.00</td>
<td>6.00</td>
<td>4.00</td>
<td>.32</td>
</tr>
<tr>
<td>INDEP</td>
<td>118</td>
<td>.25</td>
<td>.75</td>
<td>.40</td>
<td>.11</td>
</tr>
<tr>
<td>INSTI</td>
<td>118</td>
<td>.02</td>
<td>.83</td>
<td>.28</td>
<td>.14</td>
</tr>
<tr>
<td>MOWN</td>
<td>118</td>
<td>.00</td>
<td>.74</td>
<td>.08</td>
<td>.14</td>
</tr>
<tr>
<td>FIRM (Ln)</td>
<td>118</td>
<td>24.95</td>
<td>33.84</td>
<td>28.67</td>
<td>1.89</td>
</tr>
<tr>
<td>FP</td>
<td>118</td>
<td>.31</td>
<td>.44</td>
<td>.05</td>
<td>.29</td>
</tr>
</tbody>
</table>

RDI = risk disclosure index; AC = audit committee; INDEP = independent commissioners; INSTI = institutional ownership;
MOWN = managerial ownership; FIRM = firm size; FP = financial performance

In terms of the proportion of institutional and managerial ownership, results of descriptive statistics show that the mean of stock ownership by institutions (28%) and managers (8%) is relatively low. Table 4 presents the results of the regression analysis of the determinants of risk disclosure. As explained above, the dependent variable in this study is risk disclosure, and the independent variables consist of audit committee size, the proportion of independent commissioners, institutional ownership, managerial ownership, size of the firm, and financial performance. The results of the analysis show that the regression model has no multicollinearity (VIF value less than 10) or heteroscedasticity (the p-value of Glesier test is more than .05) problems.

where,
AC - audit committee, is measured by the number of members on the audit committee;
INDEP - the proportion of independent commissioners, is measured by the number of independent commissioners divided by the total number of commissioners;
INSTI - institutional ownership, is measured by the percentage of shares owned by an institution;
MOWN - managerial ownership, is measured by the percentage of shares owned by a manager;
FIRM - firm size, is measured by a logarithm of the total assets; and FP, financial performance, is proxied by profitability (earnings after tax divided by total assets).

The dependent variable is measured by using the content analysis method with the unweighting disclosure index approach. The score will be 1 if the company disclosed information as determined in check list items, and 0 will be given if it is not disclosed. Table 2 provides the disclosure check list items as developed by referring to the Indonesia Financial Services Authority (OJK), Linsley and Shrives (2006), and Amran et al. (2009).

\[ RDI = \beta_0 + \beta_1 AC + \beta_2 INDEP + \beta_3 INSTI + \beta_4 MOWN + \beta_5 FIRM + \beta_6 FP + \varepsilon \] (1)
In general, the results of this study show that corporate governance and firm characteristics significantly positively affect the extent of risk disclosure. The results of the regression analysis indicate that audit committee size, firm size, and financial performance positively and significantly affect risk disclosure. Thus, hypotheses 1, 5, and 6 are accepted. In contrast, the proportion of independent commissioners (H2), institutional ownership (H3), and managerial ownership (H4) did not have a significant influence on risk disclosure. Although the results are not significant, the direction of the relationship between such variables is consistent with the predicted hypotheses.

The positive relationship between audit committee size and disclosure is consistent with Samaha et al. (2015), Saha and Akte (2013), and Barako et al. (2006). Although the Board of Directors (BoD) and the Board of Commissioners (BoC) are responsible for the financial statements’ integrity, the audit committee supervises the processes of corporate governance, such as external audits, financial statements, risk processes, and control. An effective audit committee may act as a tool to improve the effectiveness, responsibility, openness, and objectivity of the BoC, as well as to improve the quality of financial statements. By supervising these processes, audit committee may create a climate of discipline and control that will reduce the possibility of misappropriation and enhance the viability and objectiveness of financial statements, as well as increase external stakeholder’s confidence and maintain the public’s trust that the company has better internal controls. As the potential for risks is lowered, companies would be encouraged to disclose the information to stakeholders.

The insignificant relationship between independent commissioners and the extent of risk disclosure is consistent with Allegri and Greco (2013) and Domínguez-Rodriguez and Noguera-Gámez (2014). This finding indicates that a high proportion of independent commissioners in a company does not guarantee a high degree of risk disclosure. The existence of independent commissioners in Indonesia does not play a great role in encouraging companies to provide high risk disclosure. This result is due to the appointment of independent commissioners just for the sake of fulfilling the regulations instead of aiming to implement good corporate governance. In addition, the provisions mandating the minimum composition of independent commissioners (30%) is still too low to create independence of the BoC in decision making.

This study finds that ownership type does not influence the extent of risk disclosure. This finding is consistent with Samaha et al. (2015). In Indonesia, the majority of institutional ownership is owned by the government, investment firms, securities companies, and pension funds. The insignificant relationship between institutional ownership and risk disclosure may be because investors have not yet fully considered risk information as important criteria in investing activity. Another possible reason is that firms tend to avoid the negative impact on their business. Companies with high managerial ownership had less risk disclosure. This result may be that managers already have the information as they need; therefore, they tend not to disclose in order to reduce the costs of disclosure activity.

Consistent with Linsley and Shrives (2006), Elshandidy and Nerl (2015), and Amran et al. (2009), this study suggests that larger firms and firms that have a better financial performance tend to disclose more about risk. The larger the size of the firm, the greater pressure there is from shareholders and other stakeholders. Disclosing more risk information to principals will reduce the pressure. Companies that have a better financial performance will provide more risk information to shareholders and the public to reduce information asymmetry and to maintain public confidence.

### 6. CONCLUSION

This study investigated whether corporate governance and firm characteristics are the determinants of risk disclosure. Corporate governance mechanism measures that used in this study are number of the audit committee members, the proportion of independent commissioners, managerial ownership and institutional ownership. Meanwhile, the firm characteristics variable is represented by firm size and financial performance. The results of our study provide evidence that audit committee, size of the firm and the company’s financial performance are factors that encourage companies to communicate risk information in the annual reports. Overall, the results of this study support previous studies. Compared to the risk disclosure in developed countries, the level of risk disclosure in Indonesia is still relatively low (32%). The result suggested that the existence of the Government’s regulation is still not fully implemented by listed companies.

This study provides deeper insights into corporate governance’s role in encouraging public companies to better disclose risk information. The theoretical implication of the study is that corporate governance mechanisms are not yet fully successful

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### Table 4. Regression results for the determinants of risk disclosure

<table>
<thead>
<tr>
<th>Variables</th>
<th>Prediction sign</th>
<th>Coefficient regression</th>
<th>t</th>
<th>p-value</th>
<th>Multicollinearity Tolerance</th>
<th>Multicollinearity VIF</th>
<th>Heteroscedasticity t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td>-3.02</td>
<td>-3.94</td>
<td>.000</td>
<td>1.028</td>
<td>.306</td>
<td>1.028</td>
<td>.306</td>
</tr>
<tr>
<td>AC</td>
<td></td>
<td>.015</td>
<td>2.480</td>
<td>.013</td>
<td>.940</td>
<td>1.063</td>
<td>.715</td>
<td>.476</td>
</tr>
<tr>
<td>INDEP</td>
<td></td>
<td>.127</td>
<td>1.104</td>
<td>.272</td>
<td>.935</td>
<td>1.070</td>
<td>1.118</td>
<td>.266</td>
</tr>
<tr>
<td>INSTI</td>
<td></td>
<td>.056</td>
<td>.606</td>
<td>.546</td>
<td>.737</td>
<td>1.320</td>
<td>.104</td>
<td>.297</td>
</tr>
<tr>
<td>MOWN</td>
<td></td>
<td>-.004</td>
<td>-.046</td>
<td>.963</td>
<td>.922</td>
<td>1.084</td>
<td>-.333</td>
<td>-.740</td>
</tr>
<tr>
<td>FIRM</td>
<td></td>
<td>.016</td>
<td>2.022</td>
<td>.046</td>
<td>.950</td>
<td>1.053</td>
<td>1.653</td>
<td>.239</td>
</tr>
<tr>
<td>FP</td>
<td></td>
<td>.027</td>
<td>2.374</td>
<td>.032</td>
<td>.833</td>
<td>1.200</td>
<td>1.387</td>
<td>.168</td>
</tr>
</tbody>
</table>

R² = .153; Adjusted R² = .101; F = 2.920; p-value = .012; N = 118

RDI = risk disclosure index; AC = audit committee; INDEP = independent commissioners; INSTI = institutional ownership; MOWN = managerial ownership; FIRM = firm size; FP = financial performance
in improving risk disclosure in companies’ annual reports. The practical implications of the results suggest that regulators need to continuously encourage companies to disclose more risk information in their annual reports. One way to achieve this objective is to set mandatory risk disclosures for public listed companies. Specifically, the types of risks that can greatly impact a company’s financial performance and a company’s going concern should be disclosed.

This study has limitations. First, this study only used cross-section data, so the trend of risk disclosure cannot be observed from year to year. Second, the small sample may not be generalised in all settings. Third, the indicators for measuring the corporate governance variable are still limited to the size of the audit committee, the proportion of independent commissioners, and the type of ownership.

Future research is expected to consider other measurements of corporate governance, such as the characteristics of the audit committee, to set a more comprehensive picture of corporate governance. Some other variables, such as the existence of a risk management committee, the role of government ownership, and the type of company (public vs. private) should also be considered.

REFERENCES


