



# The impact of risk management committee on integrated reporting disclosure in Indonesia

Heri Yanto\*, Ain Hajawiyah†

Accounting, Faculty of Economics, Universitas Negeri Semarang, Semarang, Jawa Tengah 50229, Indonesia

## Article Info

### Article history:

Received 15 November 2021

Revised 18 February 2022

Accepted 30 March 2022

Available online 12 October 2022

### Keywords:

annual report,  
integrated reporting (IR),  
risk management committee,  
sustainability report

## Abstract

Corporate reporting has evolved from financial reports, annual reports, sustainability reports, and integrated reports. Previous studies have examined the determinant of integrated reporting (IR) which includes leverage, profitability, size, external board member ratio, and female board member ratio, but none of these studies have examined the impact of a risk management committee on IR. This study aimed to; (1) analyze the level of implementation of the IR element according to the International Integrated Reporting Council (The IIRC) framework in the annual reports of firms listed on the Indonesia Stock Exchange (IDX); and (2) analyze the effect of a risk management committee, size, profitability, and leverage on the implementation of IR elements in the annual reports of companies in Indonesia. The data obtained from the content analysis were then analyzed further using multiple regression analysis. The results show that firms in Indonesia scored an average of 40.33 percent (30 out of a maximum score of 74) for disclosing information in their annual reports according to the IIRC framework. The results also show that a risk management committee, firm size, and profitability positively affect the level of adoption of IR disclosure in the firms' annual reports, while leverage negatively affect IR adoption. This study provides initial empirical evidence that risk management committees have a role in the emerging IR practices. This study is novel because it shows that risk management committees affect companies' IR practices. This research implies the existence of a risk management committee is needed to implement IR in Indonesia.

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\* Corresponding author.

E-mail address: [heri.yanto@mail.unnes.ac.id](mailto:heri.yanto@mail.unnes.ac.id) (H. Yanto).

† Co-first authors.

E-mail address: [ainhajawiyah@mail.unnes.ac.id](mailto:ainhajawiyah@mail.unnes.ac.id) (A. Hajawiyah).

## Introduction

Companies are not only required to increase profits for shareholders but also pay attention to the interests of other stakeholders such as employees, society, and the environment. The concept of triple bottom line states that organizations should commit to not only profit-making activities but also making contributions to society and the environment. Companies are required to disclose information about these matters in their corporate reporting. Corporate reporting is now required to show financial and non-financial aspects that can increase firms' transparency and accountability (Nikolaou & Evangelinos, 2012).

Corporate performance reporting has shifted from financial reports only to integrated financial and non-financial reports (Savitz & Weber, 2013). Financial statements present helpful, relevant, and reliable financial information to stakeholders (Binh, 2012). Non-financial reports are needed considering the importance of disclosing the company's activities and concern for the environment and its community as indicated by CSR reporting or sustainability reporting in annual reports and sustainability reports.

Integrated reporting (IR) presents corporate sustainability information, not a separate part but integrated into corporate reports that include financial, non-financial, corporate governance, and sustainability information to create value (The International Integrated Reporting Council [The IIRC], 2013).

IR is a new trend among firms reporting globally regarding the International Integrated Reporting Council (The IIRC) framework. IR emphasizes transparency in corporate performance reporting by presenting non-financial and financial information that combines the sustainability report (SR) and the annual report (AR) by giving the financial performance, company's strategy, governance, and sustainable development. IR disclosure can combine financial and non-financial statements in the context of creating company value (Kiliç & Kuzey, 2018).

The definition of IR according to The IIRC (2013) in the IR Framework 2013 is a compact communication regarding the organization's performance, strategy, prospects, and governance in generating short, medium and long-term value (The IIRC, 2013). IR combines financial and non-financial information into one integrated report to have better quality information so that it helps companies understand stakeholder expectations in the decision-making process (Eccles & Krzus, 2010). IR is

considered capable of assisting companies in the value creation process (Burke & Clark, 2016) and maintaining long-term stakeholder relationships (Barnabè et al., 2019). IR consists of financial, environmental, social and governance information which are presented in a clear, concise, consistent, and comparable format.

In addition to containing financial information, IR also includes other information relevant to the organization. According to Busco et al. (2013), information is presented by considering the relationship between elements, namely: organizational overview and operating context, governance, business models, risks and opportunities, strategy and resource allocation, performance, outlook, and basis of presentation. IR aims to overcome the limitations of the financial reporting and SR. IR provides a more comprehensive, practical, transparent, and integrated business perspective in one report format (Lai et al., 2016). IR has recently received more attention around the world. South Africa is a pioneer country that requires IRs. Aside from that, Australia and several countries in Europe have also required the implementation of IR where it is still voluntary, as it is in Indonesia. Indonesia has not implemented the IR concept in reporting company performance but requires AR, which contains financial and non-financial information. Due to its voluntary nature, it is essential to study the determinants of disclosure of IR elements in AR.

Information in AR and SR (often called traditional reporting) includes financial and non-financial elements but are not connected and only reflect past performance without explaining future risks and targets to support stakeholder decision making (Suttipun & Bomlai, 2019). Investors and other stakeholders need integrated information related to a company's risk management, business models, and value creation processes (Sofian & Dumitru, 2017). Information about risk management, business models, and future targets are needed by investors and other stakeholders because of the business environment uncertainty that is being faced by firms during this disruptive era.

IR provides future (or forward looking) information which is revealed in six elements that consist of organizational overview and external environment, strategy and resource allocation, governance, business model, risk and opportunities, and performance (The IIRC, 2013). IR is able to overcome the inability of the current reporting model to provide information about the company's future strategy, prospects, and value creation (Lodhia & Stone, 2018). IR provides a wider picture of the company's performance and prospects. This is because the integrated report provides a comprehensive overview of the

company's performance from various perspectives, value creation, and business models (Burke & Clark, 2016).

With the possibility of a switch from SR to IR, firms listed on the Indonesia Stock Exchange (IDX) must prepare themselves to provide the information required in the IR so that when Indonesia switches, these companies can quickly adapt to the IR framework. IR adoption in Indonesia is important because it is one of the emerging countries which has the potential growth to become a developed country as predicted by McKinsey Global. Capital inflow into Indonesia is increasing due to the government's efforts to increase foreign investment. This situation requires firms to provide more transparent and concise information as stated in integrated report.

The Government of Indonesia requires public firms to disclose financial and non-financial information in annual reports, but there is no standard regarding items that must be disclosed. So, the level of disclosure varies among firms. Moreover, IR in Indonesia is not regulated yet by the government. The motivations of the firms to disclose information required by integrated reporting frameworks need to be examined.

Dilling and Caykoylu (2019) studied the determinants of IR and found that leverage, profitability, ratio of external board members, and report length have significant negative correlation with integrated report quality while firm size and ratio of female board members correlate positively with higher quality of IR. Chariri and Januarti (2017) studied the implementation of IR disclosure in firms' annual reports in Indonesia. The results of the study show that frequency of audit committee meetings and the audit committee expertise positively affected the level of disclosure in integrated reports.

Previous research on the determinants of IR disclosures includes leverage, profitability, and corporate governance elements such as audit committee's expertise and meetings (Chariri, & Januarti, 2017), institutional ownership, board of directors' composition (Qashash, et al., 2019). In addition to research on the determinants of factors that affect the level of adoption of IR disclosure, existing research also examines the benefits that companies obtain after disclosing IR information, including the relevance of the value of financial information (Fernando et al., 2018), stock market value, cost of equity and others. Previous studies have examined the determinants of IR using companies' characteristics such as size, profitability, and leverage, and some of them have examined the impact of corporate governance characteristics.

The risk management committee is a committee that is responsible for measuring and resolving the risks at

a certain level of tolerance. The risk management committee is expected to increase disclosure, including through IR. The implementation of an effective risk management system enables maximum oversight by the board of commissioners. The application of a risk management system is a supervisory mechanism to evaluate the fairness of accounting assumptions and methodology (Richardson et al., 2013). The transparency of risk-related information can be maximized with the existence of a risk management committee (Tao & Hutchinson, 2013).

Transparent disclosure of company reports is encouraged by the risk management of the company. The existence of a risk management committee can enable companies to increase exposure, including disclosure of company risk. Companies with separate risk management committees try to provide broad and valuable information for decision-makers, especially information related to company risks and anticipation of change. A separate risk management committee can increase the transparency of risk-related information (Tao & Hutchinson, 2013).

According to the agency theory, firms will disclose more information to minimize the agency costs (Huang & Zhang, 2011). The risk management system is useful to evaluate the fairness of the accounting assumptions in providing firms' information (Richardson et al., 2013). According to the stakeholder theory, firms must be able to identify stakeholder interests that may influence the process of achieving firms' goals (Freeman & Reed, 1983). Stakeholders have expectations that the company can provide information related to the firms' operations in a transparent and accountable manner, one of which is by implementing IR.

Firms' characteristics include size, ROA, and leverage, which are also predicted to affect the level of IR adoption. Firms' size positively affects the extent of voluntary disclosures (Botosan & Plumlee, 2000). Profitable companies publish higher quality information to differentiate them from less profitable companies (Fri'as-Aceituno et al., 2014). Leveraged companies disclose more voluntary information, including IR, to minimize information asymmetry between management and creditors (Gallego-Álvarez & Quina-Custodio, 2016).

Based on the previous discussion, this study aimed to: (1) analyze the level of implementation of the IR (IR) disclosure element according to the IIRC framework in the annual reports of companies listed on the IDX; and (2) analyze the effect of risk management committee, size, ROA, and leverage on the level of adoption of IR disclosure in the annual reports of companies in Indonesia.

It was important that this research was carried out considering the trend of global corporate financial reporting, which has shifted to IR, which is regarded as more transparent and integrated than AR and SR. This study contributes to the literature by examining the risk management factor's relationship with IR disclosure. As far we know, there has been no previous research that has examined the effect of risk management on IR disclosures in Indonesia. Previous research has examined the determinants of IR disclosure using firms' characteristics such as size, profitability, and leverage.

Studies on IR in Indonesia are important to an international reader because they show the determinants of IR in one of the emerging countries in Southeast Asia with a large population and great potential to become developed country. The Asia Free Trade Area and the ASEAN Economic Community are expected to increase capital flows into the region that require companies to provide more transparent and comprehensive information stated in IR (Adhariani & de Villiers, 2018).

This research implies that good risk management support is needed to implement IR in Indonesia, where it is not yet mandatory. This result can show whether the management of companies in Indonesia is forward-looking by applying the IR elements in their annual reports. This research can have implications for IR implementation strategies in Indonesian companies.

The novelty of this research is the usage of another factor that may become a determinant of integrated reports, which is risk management. As far we know, there is no previous research that examines the impact of risk management on IR disclosure. We also tested the profitability, leverage, and firms' size as the control variables that may impact the level of IR disclosure in firms' annual reports. This study provides initial empirical evidence that a risk management committee has a role in the emerging IR practices. This study is novel because it shows that a risk management mechanism affects a company's IR practices.

The next sections of this article review the literature, and discuss the methodology, results and analysis, followed by discussion, conclusions, limitations, and implications.

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## Literature Review

### *The Context of Indonesia*

Indonesia is one of the emerging countries in Southeast Asia. The Government of Indonesia requires companies listed on the Indonesia Stock Exchange (IDX) to disclose their financial and nonfinancial information

through their annual reports (as stated in the Indonesian Government's Regulation No. 40/2007 concerning limited liability companies and Regulation No. 47/2012 regarding companies' social and environmental responsibilities, as well as in the Financial Service Authority's Regulation No. 29/POJK.04/2016 on public firms' annual reports).

The Government of Indonesia does not specify the standards for disclosures, so their level varies from firms to firm. IR also has not been regulated yet by the government (Adhariani & de Villiers, 2018).

### *Stakeholder Theory*

According to the stakeholder theory, the company's goal to maximize company profits for the benefit of shareholders as the main stakeholder will not be achieved if other stakeholders' interests are not considered (Foster & Jonker, 2005; Hawkins, 2006). Firms must be able to identify stakeholder interests that may influence the process for the achievement of firms' goals (Freeman & Reed, 1983). Stakeholders are parties who are affected by the firms' policies and activities (Garriga & Mele, 2004).

Stakeholders have expectations that the company can provide information related to its operations in a transparent and accountable manner. The company can disclose all of its activities related to operational, environmental, and social activities. One form of fulfilling these needs is by implementing IR.

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### *Agency Theory*

The agency theory explains relationships between agents (management) and principals (shareholders or company owners) (Jensen & Meckling, 1976). The agency theory assumes that everyone wants to meet their own needs. Shareholders are only interested in increasing profits and investment value, while agents are only interested in financial compensation in the form of benefits (Lambert, 2001). Differences in interests (conflicts of interest) between agents and principals can cause agency problems. In addition, differences in interests can also lead to information asymmetry, resulting in moral hazards and adverse selection.

Implementation of IR can mitigate the conflicts of interest issues because the company's information in the integrated report is more comprehensive. (Cerbioni & Parbonetti, 2007). Companies must disclose vital information in order to reduce agency costs and the problem of information asymmetry (Huang & Zhang, 2011; Suttipun & Bomlai, 2019). The

risk management system is useful to evaluate the fairness of accounting assumptions in providing firms' information (Richardson et al., 2013). With a comprehensive risk management system, disclosing information will be of higher quality to lower the agency costs.

The agency theory states that company characteristics (profitability, leverage, and size) have a positive correlation with voluntary disclosure level (Gallego-Álvarez & Quina-Custodio, 2016). Creditors require a greater extent of information due to the increasing debt of a firm so that the information asymmetry problem will decrease, so, the higher the leverage, the higher disclosure (Gallego-Álvarez & Quina-Custodio, 2016). The agency theory also states that the bigger the firm's size, the more information it discloses. This is because of their sensitivity to political costs (Botosan & Plumlee, 2000; Sierra-García et al., 2013).

### *Previous Research and Hypothesis Development*

The risk management system is implemented by identifying company risks, which are accompanied by measurement and resolution methods at a certain tolerance level. The implementation of an integrated risk management system framework is the responsibility of the board of commissioners so that policies and procedures can represent important aspects that affect business processes (Rae et al., 2008). The implementation of an effective risk management system enables maximum oversight of the board of commissioners.

The board of commissioners has the main control in setting company policies. The application of a risk management system is a supervisory mechanism to evaluate the fairness of accounting assumptions and methodology (Richardson et al., 2013). In order to reduce the risk of asymmetric information between management and stakeholders, the existence of a risk management mechanism will encourage firms to disclose more voluntary information, which includes information stated in IR.

The existence of a risk management committee can encourage companies to increase disclosure, including disclosure of company risk. Companies with separate risk management committees try to provide broad and valuable information for decision-makers, especially relevant information related to company risks and anticipation of future situations. The risk management committee can increase the transparency of risk-related information (Tao & Hutchinson, 2013).

The risk management committee's task is measuring and resolving risks at a certain tolerance level. The existence of a risk management committee is expected to increase

disclosure, including integrated reporting. The application of a risk management system is a supervisory mechanism to evaluate the fairness of accounting assumptions and methodology (Richardson et al., 2013). The implementation of an effective risk management system enables maximum oversight by the board of commissioners. This will encourage firms to disclose more information voluntarily, including information for IR.

H1: A risk management committee has a positive effect on the level of adoption of integrated reporting.

A study by Botosan and Plumlee (2000) found that a firm's size is positively related to the extent of voluntary disclosures. Under the agency theory, large firms disclose more information because of their higher political costs. IR and company size correlate positively (Sierra-García et al., 2013). Demand for comprehensive information can be met by IR (Cowen et al., 1987). Conflicts of interest among stakeholders in larger companies are higher than in small companies, so voluntary disclosure is needed to reduce those conflicts of interest. (Fri'as-Aceituno et al., 2014). Companies with a larger size will receive greater pressure from stakeholders, including the government, because they have a greater impact on society (Sharif & Rashid, 2014).

H2: Size has a positive effect on the level of adoption of integrated reporting.

Firms with higher profits will publish more information than less profitable firms. Firms with higher profits disclose higher quality information (Lopes & Coelho, 2018). To differentiate themselves from less successful companies, profitable companies can publish higher quality information (Fri'as-Aceituno et al., 2014). Firms with higher profitability will disclose more information to promote a positive signal about their performance (Sharif & Rashid, 2014).

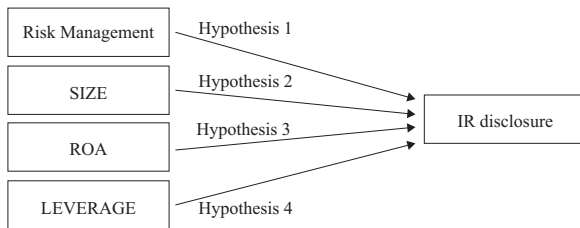
H3: Profitability has a positive effect on the level of adoption of integrated reporting.

According to the agency theory, larger debt of a company makes creditors need broader information to reduce information asymmetry. According to the capital needs theory, companies will voluntarily disclose information when they need capital. This indicates a positive correlation between voluntary sustainability disclosures and corporate debt levels (Gallego-Álvarez & Quina-Custodio, 2016). Higher monitoring costs exist in firms with higher financial leverage (Jensen & Meckling, 1976). Wider disclosure can make creditors believe that the company is able to pay their debts so that the risk of bankruptcy decreases.

H4: Leverage has a positive effect on the level of adoption of integrated reporting.

## Research Framework

The research framework used in this study is shown in Figure 1 below.



**Figure 1** Research framework

## Methodology

This research is quantitative research with a hypothesis-testing study design. Secondary data sourced from annual reports and sustainability reports were used. The population of this study was firms listed on the IDX in 2019. The sample was then selected based on several criteria, including being in the non-financial industry, publishing annual reports and/or sustainability reports, and having the data needed. Non-financial firms were selected for this sample because financial firms have unique characteristics and specific disclosures required by the Financial Services Authority of the Republic of Indonesia. The final sample comprised 143 firms. Table 1 below shows the sample selection criteria while Table 2 shows the industries of the companies in the sample.

The data that were collected and tabulated were then analyzed by descriptive statistical analysis and multivariate analysis in the form of multiple regression analysis with STATA software. Before the regression analysis, the data normality test and classical assumption test were carried out to fulfill the BLUES (Best Linear Unbiased Estimators) characteristic of the regression estimation.

The research variables used in this study are Integrated Reporting Disclosure (IR) as the dependent variable. IR disclosure is calculated by the percentage of information

disclosed in the annual report compared to the IIRC framework. This variable is measured by using content analysis of the sample firms' annual reports and sustainability reports. The criteria used are IR disclosure items according to the IIRC framework, which consists of 38 items with a total score of 74 (Cooray et al., 2020). Disclosed items will be rated 1 if disclosed and 0 otherwise. The following formula calculates the percentage of disclosure (Equation (1)).

$$IR = \frac{\text{number of items disclosed}}{\text{total number of items disclosed according to IIRC}} \times 100\% \quad (1)$$

IR = Percentage of disclosures of integrated reporting information in firms' annual report

The organizational overview and external environment element consist of 7 items with a total score of 16. This element should answer the question: what does the organization do and what are the circumstances under which it operates? The governance element consists of 7 items with a total score of 12. This element answers the question: how does the organization's governance structure support its ability to create value in the short, medium and long term? Meanwhile, the business model element, risk and opportunities, strategy and resource allocation, performance, outlook, and basis of preparation and presentation consist of 5, 3, 4, 6, 3, 3 items with scores of 10, 8, 6, 13, 4, 5.

**Table 2** Industry Samples

No	Industry	Number of sample firms
1	Food and beverages	21
2	Textile, garment	16
3	Metal and allied products	14
4	Automotive and components	12
5	Chemicals	10
6	Plastics & packaging	10
7	Pharmaceuticals	9
8	Ceramics, glass, porcelain	7
9	Pulp & paper	7
10	Cement	6
11	Cosmetics and household	6
12	Cable	5
13	Houseware	5
14	Animal feed	4
15	Tobacco manufacturers	4
16	Wood industries	2
17	Footwear	2
18	Machinery and heavy equipment	1
19	Electronics	2
Total		143

**Table 1** Sample Selection Criteria

Criteria	Number of samples
Nonfinancial firms listed in IDX	159
Firms did not publish annual report	(16)
Number of samples	143

The business model answers the question: what is the organization's business model? The risk and opportunities element consists of disclosure to answer the questions: what are the specific risks and opportunities that affect the organization's ability to create value over the short, medium and long term, and how is the organization dealing with them? Strategy and resource allocation discusses strategies and how they are carried out. Performance elements answer the questions: to what extent has the organization achieved its strategic objectives for the period and what are its outcomes in terms of effects on the capitals? The outlook element shows challenges and opportunities of the company and potential implications for business model. The basis of preparation and presentation answers the questions: how does the organization determine what matters to include in the integrated report and how are such matters quantified or evaluated? (The IIRC, 2013)

The independent variables used in this study are risk management committee, size, profitability, and leverage. Risk management committee is measured by 1 if there is a separate risk management committee and 0 otherwise (Jia et al., 2019). Size is measured by the natural logarithm of total assets. Profitability is measured by return on asset (ROA), while leverage is measured by debt to total asset ratio (Dilling & Caykollu, 2019). Below is the research model (Equation (2)).

$$IR_{i,t} = \alpha + \beta_1 RM_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \beta_4 LEV_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where,

IR : Percentage of disclosures of integrated reporting information in firms' annual report

RM : risk management committee, 1 if there is a separate risk management committee and 0 otherwise

SIZE : firms' size (natural logarithm of total assets)

ROA : profitability (by return on assets)

LEV : leverage (debt to total asset ratio)

$\varepsilon$  : error term

Content analysis of the IR disclosure was conducted by two persons to increase the objectivity of the measurements. Each person conducts the content analysis based on developed criteria. The result of the two persons' scores is then compared to see whether any difference occurred. When there was a difference between one person and the other person's score, the authors then discussed it together to determine the proper score.

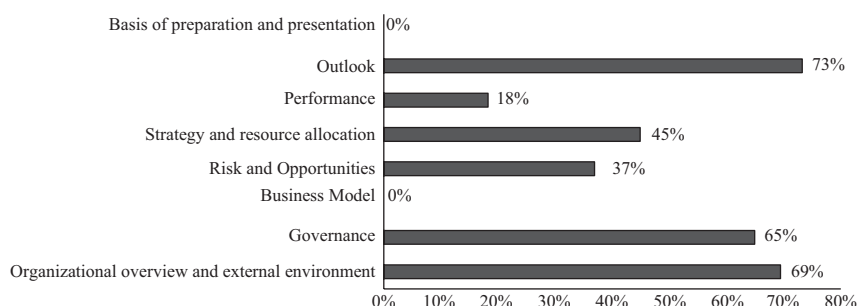
## Results

Table 3 below shows the descriptive statistics.

The average value of IR 0.4033 means that firms in Indonesia scored an average of 40.33 percent for their disclosure of information in their annual reports compared to the information required by the IIRC framework. This means that, on average, the companies sampled scored 30 out of a maximum score of 74 for their IR disclosures according to the IIRC framework. The diagram in figure 2 shows the level of disclosure per component. Outlook, organizational overview, and external information are the most extensively disclosed kinds of information in the annual reports. On the other hand, the business model and basis of preparation are the least disclosed information.

**Table 3** Descriptive Statistics

Variable	Mean	SD	Min	Max
IR	0.4033	0.0634	0.2567	0.5405
SIZE	28.5235	1.5436	25.4955	33.4945
ROA	0.0469	0.1002	-0.4000	0.6072
LEV	0.1916	0.3327	0.0001	3.5753
Variable	% no. of sample with RM = 1		% no. of sample with RM = 0	
RM (dummy variable)	11.88%		88.12%	



**Figure 2** Disclosure component

The business model and basis of preparation are not disclosed at all by the companies sampled because those kinds of information are not required in annual reports. Business model disclosures include key elements of the business model, diagrammatic presentation of the business model, etc. The basis of the preparation of the disclosures is also not presented in the sampled annual reports because disclosures related to it are not required in those reports. The basis of preparation disclosure includes a summary of the materiality determination process, reporting boundaries and their determination, and a summary of significant frameworks and methods to evaluate material matters.

Disclosures related to organizational overview and external environment and the outlook disclosure are the most extensively disclosed items in annual reports. This happens because that information, related to vision, mission, value, ownership, significant quantitative and external environment information, are the common kinds of information disclosed by sample firms.

Compared to the IIRC framework, the firms with the highest disclosure scores were PT Sierad Produce, Tbk, PT Semen Indonesia (Persero), Tbk, and PT Sri Rejeki Ismar, Tbk (54% measured against the IIRC framework). Compared to the IIRC framework, firms with the lowest disclosure scores were PT Ever Shine Tex, Tbk, PT Inti Agri Resources, Tbk., and PT Tri Banyan Tirta, Tbk (25% measured against the IIRC framework).

Only 11.88 percent of the firms have separate risk management committees. On average, firms with ROA amounted to 4 percent, with the lowest firm losing 40 percent and the most profitable firm having a profit of 60 percent. The average leverage was 19 percent. The natural logarithm of the total asset on average was 28 percent, the average total assets in IDR (rupiah) was 11,074 trillion.

The classic assumption test result shows that the data are normal, free from multicollinearity, heteroscedasticity, and autocorrelation problems. The significance value of normality test is 0.312 (more than 0.05), so the data are normal. The VIF value of the data is less than 10 and the tolerance value is more than 0.01.

Table 4 below shows the Pearson correlation matrix of the variables. From the table, we can conclude that there is no significant correlation among independent variables (each coefficient of correlation is less than 0.8). There is no autocorrelation problem with the data.

The adjusted R square value of 0.237 means that risk management committee, ROA, SIZE, and leverage can explain the variation of IR disclosure being as much as 23.7 percent, while other variable's cause remains (76.3%). F testing shows that the  $p$  value = .0000. This means that the model is significant. Table 5 below indicates the regression result of the model.

## Discussion

Hypothesis testing shows that all the independent variables affect the dependent variable. The first three hypotheses are accepted but one is rejected. Risk management committee, size, and ROA positively affect the level of adoption IR in firms' annual reports. However, leverage negatively affects IR. Firms with separated risk management committees have higher IR disclosure. The result confirms the hypothesis and supports the agency theory. Companies must disclose vital information to reduce agency costs and information asymmetry (Huang & Zhang, 2011; Suttipun & Bomlai, 2019). The risk management system can be used to assess the fairness of methodology and assumptions in presenting information (Richardson et al., 2013). With a comprehensive risk management system, the information disclosed will be of higher quality to minimize the agency cost. The existence of a risk management committee increases disclosure, including in IR. The implementation of an effective risk management system enables maximum oversight by the board of commissioners. Companies with separate risk management committees try to provide broad and valuable information for decision-makers, especially relevant information related to company risks and anticipation. A separate risk management committee can increase the transparency of risk-related information (Tao & Hutchinson, 2013).

The Government of Indonesia only mandates public firms to implement risk management that at least includes active monitoring from boards of directors and boards of commissioners and adequacy of policy, procedures, and risk limit determination. The extra effort made by firms to have separate risk management committees can indicate

**Table 4** Pearson Correlation Matrix

	IR	RM	SIZE	ROA	LEV
IR	1.0000				
RM	0.3066	1.0000			
SIZE	0.3381	0.2532	1.0000		
ROA	0.2530	-0.0795	0.1594	1.0000	
LEV	-0.1221	0.0419	-0.0434	-0.0017	1.0000

**Table 5** Hypothesis Testing Result

Variables	Predicted sign	Coef.	$p$	Decision
RM	+	0.0534	.0005***	Accepted
SIZE	+	0.0093	.002***	Accepted
ROA	+	0.1514	.001***	Accepted
LEV	+	-0.0233	.051*	Rejected

Note: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

that risk the management system is implemented better. Companies with separate risk management committees provide more information voluntarily including information through IR.

Size significantly affects IR disclosure. This result confirms previous studies by Botosan and Plumlee (2000), Sierra-García et al. (2013), Sharif and Rashid (2014), and Fri'as-Aceituno et al., (2014). Larger firms have a higher level of IR disclosure. This result is in accordance with the agency theory, which states that large companies disclose more information because of their sensitivity to political costs (Botosan & Plumlee, 2000; Sierra-García et al., 2013). The agency theory also states that voluntary disclosure is an effective tool to reduce the agency costs caused by the potential conflicts of interest among stakeholders, which are higher in larger companies (Fri'as-Aceituno et al., 2014) and this is also confirmed by the results of this study.

Profitability significantly affects IR disclosure. Firms with high profitability (ROA) will disclose more information to distinguish themselves from more minor profitable organizations. This result supports the signalling theory and previous research by Lopes and Coelho (2018), Sharif and Rashid (2014), Fri'as-Aceituno et al. (2014).

Hypothesis testing shows that firms with high leverage have lower IR disclosure. This result is not in accordance with the agency theory, which states that creditors require more extensive information due to firms' increasing debt so that the information asymmetry problem will decrease. This result also did not support a previous study by Gallego-Álvarez and Quina-Custodio (2016). This may be because creditors are concerned only with financial information that is mandated to be disclosed by regulation.

## Conclusion

This study found that firms in Indonesia scored an average of 40.33 percent for the disclosure of information through integrated reporting (IR) in their annual reports and sustainability reports. This means that on average companies sampled scored 30 items of a maximum score of 74 for their IR disclosures according to IIRC framework. The study also finds that risk management committee, size, ROA, and leverage significantly affect the level of IR disclosure in firms' annual reports. This research has implications for IR implementation strategies in Indonesia. These findings imply that good risk management support is needed to implement IR in Indonesia, where it is still voluntary. The government

should require good risk management implementation to support IR disclosure. This result can show whether the management of companies in Indonesia is forward-looking by applying the IR elements in their annual reports. The limitation of this study is its examination of only one reporting period and the examination of only risk management committee and other firms' characteristics (size, ROA, leverage). Further analysis could examine multi-year observation periods and other factors that may become determinants of IR disclosure, such as corporate governance mechanisms.

## Conflict of Interest

The authors declare that there is no conflict of interest.

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