INTEGRATED REPORTING DISCLOSURE AND ITS IMPACT ON FIRM VALUE: EVIDENCE IN ASIA

Ika Sebti Nurkumalasari
Nurika Restuningdiah
Eka Ananta Sidharta

ABSTRACT

Integrated reporting is the latest reporting that contains financial and non-financial information of the company. Several studies consider the integrated reporting relationship towards the benefits received by the company. Most researchers examine the benefits of integrated reporting in South Africa which are mandatory disclosure; as a result, there is still a scarcity of evidence about the benefits of integrated reporting for companies in the voluntary reporting environment, especially in Asia. Therefore, the aim of the study is to investigate the effect of integrated reporting on a firm value which is moderated by the complexity of organization and external financing. The sample of this study was a non-financial public company in the Asian region that published integrated reporting as of December 31st, 2015-2017. This study applied the MRA (Moderated Regression Analysis) analysis to test hypotheses. The results showed that the significance of the five equations did not meet the significance level (α); hence, the research hypothesis was not accepted. It indicates that integrated reporting does not affect the value of the company. In addition, the complexity of the organization and external financing are not able to moderate the relationship between integrated reporting and firm value. These results imply that integrated reporting has not become a signal which is needed by stakeholders in the Asian region. The findings contribute to the existing of literature signaling theory that integrated reporting is not the only a signal which is needed by stakeholders in the voluntary reporting environment, especially in the Asian region.

Keywords: Integrated Reporting, Firm Value, Organizational Complexity, External Financing, Signaling Theory.

INTRODUCTION

The trend of the corporate reporting format is starting to develop into an integrated reporting that combines financial reports and non-financial reports in one document. The report evolves to adjust the demands of information which is needed by stakeholders regarding company performance and conditions with financial indicators that have not been sufficient to provide information to investors (Kilic & Kuzey, 2018; Ching & Gerab, 2017) and are less relevant to current conditions where environmental criteria social and governance are important issues (Atkins et al., 2015). Stakeholders such as potential shareholders and creditors not only care about past performance (financial) but also pay attention to future prospects (non-financial) (Needles Jr et al., 2016). In addition, financial and non-financial disclosures in a separate format can reduce information and understanding of corporate stakeholders in decision making (García-Sánchez & Noguera-Gámez, 2017; Utami, 2016).

Simplification of messages in a single report to all stakeholders is expected to increase the transparency of the company (Eccles & Krzus, 2010). In addition, increasing reporting content is the best momentum to share company value creation and risk (Lee & Yeo, 2016). This report is believed to be one of the company's approaches to maintaining good relations with capital providers because the information provided indirectly can reduce information asymmetry and the crisis of trust in the company. Integrated reporting content is believed to be able to tell the good and bad of the company which is expected to attract stakeholders' trust such as creditors and investors to invest their funds. Stakeholders, especially investors, can find out the extent of the company's wealth, performance and success rate through published integrated reporting. So, the more forms of accountability carried out by the company, it is expected to increase investor interest in the value of the company as reflected in the increasing value of shares (Retno & Priantinah, 2012).

Companies with certain characteristics such as companies that have complexity and high external financing needs can utilize integrated reporting as a way to reduce information asymmetry. More complex organizations have higher information processing and cause limited information processing by investors (Cohen & Lou, 2012). This situation causes a significant delay in information changes to asset prices (Lee & Yeo, 2016). For example, stock prices that are not in accordance with expensive information obtained by investors (Bushman et al., 2004). While companies that are looking for external financing tend to incur more expensive costs as a result of information asymmetry between investors and managers (Myers & Majluf, 1984). Therefore, companies need a broad information environment to provide explanations to stakeholders in the creation of corporate value. Integrated reports are appropriate to explain to stakeholders, especially providers of financial capital because they contain relevant information, both financial and non-financial.

Several previous studies have examined the benefits of integrated reporting for providers of financial capital. Research by Lee & Yeo (2016) found that between integrated reporting and firm value has a positive relationship, which means that the benefits of integrated reporting in companies in South Africa have exceeded the cost. In addition, they also predict that companies that publish integrated reporting can improve the complex information environment in the company and can alleviate information asymmetry between company management and outside stakeholders. Extending the research of Lee & Yeo (2016), Barth et al. (2017) conduct similar research by separating firm values into three components, namely liquidity, capital costs, and expected future cash flows in South African companies. The results showed that integrated reporting has a positive relationship with firm value, which is consistent with the findings of Lee & Yeo (2016). In addition, there is a positive relationship between integrated reporting and liquidity and expected future cash flows. The effect on the capital market is that increased information allows investors to make more accurate predictions of cash flows.

Furthermore, the research on the impact of integrated reporting is still an opportunity for further researches considering that there is still relatively little research on the impact of integrated reporting ideas on companies (Rinaldi et al., 2018) and there is still a dearth of evidence (Lee & Yeo, 2016). In addition, assessing the impact of integrated reporting on firm value is still one of the interesting topics for companies and regulators (deVilliers et al., 2017). Another research opportunity is to examine the impact of integrated reporting in a voluntary reporting environment, according to the advice given by previous research (Lee & Yeo, 2016; Zhou et al., 2017). This is based on several previous studies which were mostly carried out in South Africa in countries which require companies registered in the Johannesburg Stock Exchange to publish mandatory disclosure.

In an effort to expand empirical evidence and fill the research gap, the researchers examined the benefits of integrated reporting in a voluntary reporting environment, namely in the Asian region. This selection was motivated by the fact that there was still limited research about the use of integrated reporting in the Asian region. The development of integrated troubles in the Asian region is still slow, however, but its development is well received by countries in the Asian region. This can be seen from the reaction of Singapore which has put resources into realizing its desire to be the center of integrated reporting in Southeast Asia by 2020, the Prime Minister and regulator in Malaysia in 2014 called on businesses to adopt integrated reporting and include integrated reporting in the master plan their capital markets, and the Japanese Government which reformed corporate governance by making integrated reporting to hold long-term investors (Colvert, May 13, 2016). Therefore, in his interview with the CSJ editor (The monthly journal of the Hong Kong Institute of Chartered Secretaries), Jonathan Labrey (Chief Strategy Officer and Head of Asia Pacific, International Integrated Reporting Council) believes that integrated reporting will be the norm in Asia for the next 10 years (Colvert, May 13, 2016).

This situation strongly supports Asian economic conditions, where the Asian market has developed in recent times and attracted significant investor attention (Hsieh, 2014). It is evident from the flow of FDI entering Asia by 68% or more than two-thirds of total FDI financial inflows in developing countries, such as Africa, Latin America and the Caribbean (Nyambuu & Tapiero, 2018: 227). Issuance of integrated reporting in a voluntary reporting environment is a separate question regarding the company's motivation and its impact on stakeholders. Using a sample of non-financial public companies in the Asian region in 2015-2017, researchers examined the effect of integrating reporting on firm value by considering organizational complexity and external financing factors.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Signaling Theory

Disclosure of corporate responsibility indirectly indicates that the company is trying to give signals to external parties. The company provides information that is controlled by management thus it is known to the public as a form of reducing information processing costs. This is consistent with signaling theory which can fundamentally reduce information asymmetry (An et al., 2011; Spence, 2002). Signaling is a reaction to information asymmetry where companies have information while investors do not (Watson et al., 2002). This theory assumes that managers and shareholders do not have access to the same company information. There is certain information that is only known by the manager, while the shareholders do not know the information. Therefore, the company as an insider who has information needs to provide information to outside parties who are then captured as signals. The more information provided as a signal to other parties is expected to reduce information asymmetry between companies and stakeholders (Watson et al., 2002). The same opinion is also conveyed by Baiman & Verrecchia (1996) that signals conveyed to the public can reduce information asymmetry, optimize financing, and increase firm value.

The signals given vary, such as product quality and systematic program selection through the quality of company reports (Spence, 1976). Many researchers use signaling theory to base their research on corporate voluntary reporting (An et al., 2011; Anifowose et al., 2017; Bini et al., 2011; Ching & Gerab, 2017; Watson et al., 2002). Companies provide information outside the liability limit as a signal that stakeholders can observe to mark the company's competitive advantage. In the end the integrated reporting was present as a signal from the company to reduce the information asymmetry. Through integrated reporting, companies integratedly provide management information and company performance whose information can be interpreted as positive or negative signals by stakeholders to influence the decision-making process. More and more quality signals received by stakeholders are expected to reduce information asymmetry and have an impact on increasing the value of the company.

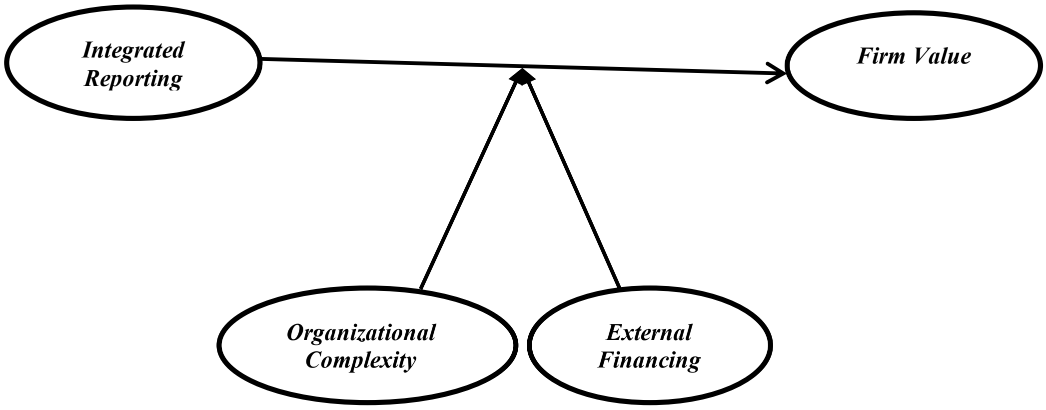

Figure 1. Research Design

The Effect of Integrated Reporting on Firm Value

Integrated reporting is believed to be able to create firm value over time aimed at the organization itself such as financial returns to providers of financial capital and to other people such as stakeholders and the wider community (IIRC, 2013). This report can be aligned with the interests of managers and shareholders so as to achieve comprehensive accountability (Frias-Aceituno et al., 2012b). In addition, it also enables the company to provide information on sustainability strategies to stakeholders in order to find various mechanisms for value creation (Macias & Farfan-Lievano, 2017).

Companies can share their value creation and risk as a good signal by an increasing company reporting content (Lee & Yeo, 2016). The more forms of accountability carried out, it is expected to increase investor interest (Retno & Priantinah, 2012). The same opinion is stated by Lang & Lundholm (2000) that maintaining a level of corporate disclosure can consistently reduce information asymmetry and have an impact on the increase in the price of the stock offer. So, through integrated reporting companies can suppress information asymmetry between management and investors because the company can tell investors about value creation over time.

Research on integrated reporting on firm value has been carried out by several researchers such as Lee & Yeo (2016) and Barth et al. (2017). The two studies were carried out in South Africa, which is a country that requires companies to adopt integrated reporting, giving the same results, namely integrated reporting disclosure capable of influencing firm value. Based on the explanation above, it can be concluded that integrated reporting is related to firm value in a voluntary reporting environment. Thus, the hypothesis is stated as follows.

Ha1 = Integrated reporting has a significant positive effect on firm value.

Organizational Complexity Strengthen the Effect of *Integrated Reporting* on Firm Value

An organization can be said to be complex if it has differences both horizontally, vertically, and spatially (Kusdi, 2009, p.168) and has many parts that are interdependent (Cara et al., 2017). Complex organizational criteria can be seen from the number of units or departments and geographies (Kusdi, 2009, p. 175), a number of industries (Bushman et al, 2004; Cohen & Lou, 2012), firm size and proportion of intangible assets (Lee & Yeo, 2016). Liu et al. (2015) categorized it into three parts, namely structural complexity (number of industries, geographical area, number of departments and subsidiaries, and level of organizational hierarchy (vertical differentiation), relational complexity (number of shareholders and number of company affiliate units), and complexity behavior (cultural complexity).

The situation arising from this degree of difference is that the average company will experience a delay in information changes to asset prices (Lee & Yeo, 2016), more information analysis needs and limited information processing by investors (Cohen & Lou, 2012), and demands greater information on financial performance, management, governance and corporate sustainability records (Garcia-Sanchez et al., 2013). Therefore, weaknesses in information processing due to the complexity of business can be minimized by providing broader and more comprehensive information signals to stakeholders. The quality of integrated reporting disclosure can be an effective approach in providing signals to investors, because traditional reporting is not enough to meet the information needs of shareholders, especially in complex companies (Lee & Yeo, 2016). Integrated reporting is believed to contain information that is more consistent with the needs of investors who provide more accurate non-financial information, better resource allocation decisions, reduction of risk management, and better identification of opportunities (Frias-Aceituno, et al., 2012a).

Several studies have shown that integrated reporting is a report that is beginning to be in demand by complex companies, such as large companies (Frias-Aceituno et al., 2012a; Frias-Aceituno et al., 2012b; Garcia-Sanchez et al., 2013) and companies those who have operating businesses to various countries exceed export destinations (Macias & Farfan-Lievano, 2017). In addition, previous studies by Liu et al (2015) state that the complexity of the environment can be considered as a moderating factor. This was also reinforced by Lee & Yeo (2016) that integrated reporting was able to reduce the cost of information processing in companies with complex operations and informative environmental disclosures. Based on the explanation, it can be concluded that organizational complexity can strengthen the effect of integrated reporting on firm value. Thus, the second hypothesis is stated as follows.

Ha2 = Integrated reporting has a large influence on firm value for companies with higher organizational complexity.

External Financing Strengthen *Integrated Reporting* on Firm Value

External financing is financing originating from outside the company. To get it, companies need to pay higher costs than to get internal financing (Al-Najjar & Al-Najjar, 2017; Myers & Majluf, 1984). This is because there is information asymmetry between companies/managers and stakeholders (Chen, et al., 2010; Myers & Majluf, 1984). Companies with high external financing needs can reduce costs due to information asymmetry by providing better quality company disclosures (Lang & Lundholm, 2000; Lee & Yeo, 2016). The same opinion was stated by Francis et al (2005) that companies that need external financing are more likely to make higher level disclosures.

Corporate disclosure can be a communication tool to signal the good and bad quality of the company which is expected to attract stakeholders' trust in investing their funds. The signals conveyed to the public can reduce information asymmetry, optimize financing, and increase firm value (Baiman & Verrecchia, 1996). Publicizing information as a signal to providers of capital is one of the company's main justifications for maintaining good relations between companies and capital providers and thus obtaining better financing (Frias-Aceituno et al., 2012a). So, companies that express signals well and have external financing needs will find it easier to get capital from various funding providers. According to Lee & Yeo (2016), integrated reporting can be a corporate communication tool to financial capital providers how an organization creates value over time. Through integrated reporting, capital providers can obtain information about the increase or decrease in net capital value that affects firm value and information on financial capital returns (IIRC, 2013).

Previous research by Chen et al. (2010) provide the results of the quality of disclosure of corporate governance practices more influential on the value of the company in companies with high external financing needs. While other studies provide evidence that integrated reporting can reduce the cost of capital (García-Sánchez & Noguera-Gámez, 2017) and increase firm value (Lee & Yeo, 2016) especially in companies with high external financing. Based on the explanation above, it can be concluded that external financing can strengthen the effect of integrated reporting on firm value. Thus, the third hypothesis is stated as follows.

Ha3 = Integrated reporting has a large influence on firm value for companies that require greater external financing.

RESEARCH METHODOLOGY

Sample

The sampling technique used in this study was purposive sampling based on the criteria of non-financial public companies in the Asian region that issued integrated reporting in 2015-2017. To equalize the cut of the researcher uses the report as of December 31. Exceptions to financial sector companies because of the different characteristics of the industry, including large financial instruments (Kustiani, 2016), thus it can cause a very striking difference in some of the variables studied. Regarding the limited acquisition of research sample data of companies that publish integrated reporting in the Asian region, the researchers used the GRI database to obtain company data that revealed integrated reporting. Then, the researchers browsed the websites of each company to obtain integrated reporting.

The number of research samples in the Asian region was obtained by 14 non-financial public companies that issued integrated reporting for the period 31 December 2015-2017 thus the number of observations during the year of observation was 42 observations. The research sample included companies in various industries such as agriculture, mining, chemistry, construction, electricity and electronics, food, information technology, manufacturing, retail, and service.

Variable Measurement

The dependent variable in this study is the firm value. The measurement of firm value variables used the Tobins' q formula, where the most common measure is used for researching firm value (Sheikh, 2018). The greater the value of Tobin’s q indicates that the company has better investment opportunities and growth potential. While the independent variables in this study are integrated reporting. The integrated reporting measurement index was determined based on eight content elements determined by The International Integrated Reporting Council (IIRC, 2013). Scoring was done by analyzing the presence or absence of each item by giving a score of 1 if the company reveals integrated reporting elements and 0 otherwise. Therefore a company can receive scores ranging from 0 to 50 depending on the number of items disclosed. The company's integrated reporting value used as research data was obtained from the proportion of disclosure of integrated reporting elements to the maximum score that could be disclosed.

There are two moderator variables in this study, namely organizational complexity and external financing. First, organizational complexity (COMPL) was measured using the proxy number of subsidiaries. According to Liu et al (2015) that the number of subsidiaries embodies corporate horizontal differentiation, where the greater the number the more complex the organization. The second moderator variable is external financing (EKST). The measurement of this variable is known by the ratio of long-term debt to total assets, according to Chen (2010).

This study controlled the variable leverage, profitability, and size of the company. The researchers controlled leverage since it has a significant influence on firm value (Ross, 1977). The proxy used to measure leverage was Debt to Total Assets Ratio (DAR). Then control profitability because it is the most frequently used predictive (Frias-Aceituno, et al., 2012a) and as a net cash flow that can predict firm value (Fama & French, 1998). The proxy used to measure profitability was Return on Assets (ROA). Whereas, according to Crisostomo et al (2011), company size becomes an important control variable because size can influence the company's capacity to actively provide social activities and be more responsible for the demands of different stakeholders. The proxy used to measure the size of the company was LN Assets.

Research Model

This study used MRA (Moderated Regression Analysis) as a technique to identify the presence or absence of moderator variables. Moderated Regression Analysis is an analytical approach that maintains sample integrity and provides a basis for controlling the influence of moderator variables (Sharma, 1981). To use MRA with a predictor variable (X), it is calculated by comparing three regression equations to determine the type of moderator variable. Because this study used two moderator variables, there are
five regression equations. The five equations are as follows.

$$TOBINQ=\alpha+\beta_1 IR+ \beta_2 ROA+ \beta_3 DAR+ \beta_4 SIZE+\varepsilon \quad (1)$$
$$TOBINQ=\alpha+\beta_1 IR+ \beta_2 COMPL+ \beta_3 ROA+ \beta_4 DAR+ \beta_5 SIZE+\varepsilon \quad (2)$$
$$TOBINQ=\alpha+\beta_1 IR+ \beta_2 COMPL+ \beta_3\ IR * COMPL +\beta_4 ROA+ \beta_5 DAR+ \beta_6 SIZE+\varepsilon \quad (3)$$
$$TOBINQ=\alpha+\beta_1 IR+ \beta_2 EKST+ \beta_3 ROA+ \beta_4 DAR+ \beta_5 SIZE+\varepsilon \quad (4)$$
$$TOBINQ=\alpha+\beta_1 IR+ \beta_2 EKST+ \beta_3\ IR * EKST+ \beta_4 ROA+ \beta_5 DAR+ \beta_6 SIZE+\varepsilon \quad (5)$$

Description =

TOBINQ	: Equity market value plus debt value divided by the total book value of assets
IR	: The number of <IR> element disclosure items divided by the maximum number of disclosures of the <IR> element (50 items)
COMPL	: Number of subsidiaries
EKST	: Long-term debt divided by total assets
ROA	: After-tax net income divided by total assets
DAR	: Total debt divided by total assets
SIZE	: Natural log of assets

Sharma (1981) explained that the decision-making criteria of the MRA regression model can be seen based on the results of the three equations. If equations (2) and (3) or equations (5) and (6) are not significantly different (ie $\beta 3 = 0$; $\beta 2 \neq 0$), the COMPL and EXST variables are not moderator variables, but only independent predictor variables. If equations (1) and (2) are not different but must be different from equation (3) or equations (1) and (4) are not different but must be different from equation (5) (i.e. $\beta 2 = 0$; $\beta 3 \neq 0$) then the variable COMPL and EXST can be pure moderator variables (pure moderator). Finally, if equations (1), (2), and (3) or equations (1), (4), and (5) differ from each other (i.e. $\beta 2 \neq \beta 3 \neq 0$), the COMPL and EXST variables can be variables all moderators (quasi moderator).

RESULTS AND DISCUSSION

Table 1 shows the results of the descriptive statistics of all variables used in this study. The average sample company has a firm value of 1.39 with the highest value of 3.98 while the lowest value is 0.72. Then the average integrated reporting disclosure is 0.74, which means that the company has revealed elemental content of 37 disclosure items from 50 items during 2015-2017. This indicates that the disclosure of integrated reporting in the Asian region is high. Based on table 1, the results show that the average company has a complexity of 91.48 from the maximum value of 911 and the average external financing of the company is 0.23 from the maximum value of 0.35. These results indicate that most companies have relatively low organizational complexity and high external financing.

Table 1
Statistics Descriptive of Research Variable

Variable	Minimum	Maximum	Mean	Standard. Deviation
TOBINQ	0,72	3,98	1,39	0,87
IR	0,44	0,92	0,74	0,11
COMPL	7	911	91,48	212,81
EKST	0,08	0,35	0,23	0,07
ROA	-0,06	0,21	0,03	0,05
DAR	0,19	0,76	0,55	0,13
SIZE	12,97	14,79	14,04	0,62

To avoid the biased measurement values from the regression analysis equation, the classic assumption test was first performed to meet the requirements for the use of regression analysis which includes autocorrelation tests, normality tests, and heteroscedasticity tests. Based on the results of the Durbin Watson autocorrelation test, there was autocorrelation in this regression model. Therefore, to treat it, the researchers alter the dependent variable and the independent variable to a natural logarithmic form according to Ghozali (2013, p.167), subsequently we reexamined all classical assumptions and tested the hypotheses. The results prove that they meet the classical assumptions and could be tested for moderation regression.

Table 2
The Results of Moderated Regression Analysis (MRA)

	Equation (1)	**Equation (2)**	**Equation (3)**	**Equation (4)**	**Equation (5)**
(Constant)	11,483***	15,961***	17,741***	11,628***	12,849***
IR	0,514	0,274	-2,218	0,549	4,906***
COMPL	-	0,118*	0,409*	-	-
IR*COMPL	-	-	0,927	-	-
EKST	-	-	-	0,049	0,977**
IR*EKST	-	-	-	-	3,474**
ROA	0,285***	0,268***	0,311***	0,284***	0,256***
DAR	-0,504**	-0,675***	-0,655***	-0,522**	-0,535**
SIZE	-3,964***	-5,911***	-6,818***	-3,992***	-4,052***
Adj. R^2	0,572	0,610	0,623	0,557	0,636

Note: *, **, and *** shows a statistics significant on each level 10%, 5%, and 1%.

The results of testing the hypotheses of the MRA analysis (Moderated Regression Analysis) are available in table 2. Based on the results of the MRA analysis equation 1 obtained the results of integrated reporting on the value of the company that the significance value of the IR variable does not meet the significance level (α> 10%, 5%, 1 %) thus H0 is not rejected. This means that integrated reporting does not affect firm value. This means that the high and low scores of integrated reporting in a company do not affect the value of the company for stakeholders. Therefore, this study does not support the validity of a signaling theory that states that integrated reporting can be used by companies as a signal or an appropriate medium to reduce information asymmetry between companies and stakeholders, especially investors. The results of the study indicate that integrated reporting has not been able to serve as the required signal or not all signals are given by the company can be captured properly by investors. Thus, the signal in the form of integrated reporting has not felt the benefits in increasing the value of the company.

It is known that one of the objectives of integrated reporting is to serve as a source of corporate communication in the creation of corporate value in the short, medium and long term. This goal does not seem to be in accordance with the characteristics of short-term stakeholders, where capital gains are the main goal and share sale and purchase transactions occur almost every day. It is strengthened by Utami (2016) who state that integrated reporting disclosure is not necessarily a better reporting in communicating company performance to short-term stakeholders. Integrated reporting provides medium and long-term company-oriented information that is not needed by short-term investors.

Difficult measurement of non-financial information and the weak understanding of investors about the relevance of non-financial information and financial performance can be a factor that non-financial reporting is still not acceptable to users such as investors and analysts. For example the relationship of data about carbon emissions or ESG factors in influencing firm value. Investors and analysts still find it difficult to assess the relevance of non-financial information and financial information in integrated reporting, accordingly they consider integrated reporting have no significant impact on the valuation of investment and capital markets (Abhayawansa et al., 2018; Adhariani & de Villiers, 2018; Hsiao & Kelly, 2018). The limitations ability of stakeholders to understand integrated reporting can be a factor that integrated reporting is less useful in increasing firm value.

In addition, integrated reporting content presented by the company can be a cause of lack of informative integrated reporting for users. Such a long, long-winded narrative, and limited to mere management rhetoric, make a disclosure of information saturating. For investors and analysts, reading and capturing the creation of corporate value on integrated reporting is an activity that will take a long time. Even the reporting of integrated reporting is presented only as the legitimacy of the company to attract the attention of stakeholders and not a neutral source of information. This was reinforced by Singh et al (2012) that integrated reporting produced a long and excessive narrative report, accordingly it was not really read by some users. In addition, integrated reporting information is only limited to company rhetoric stories that form a positive image (Oktaviani, 2017) and are symbolic thus they are not used as the main source of decision making (Adhariani & de Villiers, 2018).

The results of this study contrast with the results of a study conducted by Lee & Yeo (2016) and Barth et al (2017) which show that integrated reporting has a positive relationship with the firm value in South Africa. Disclosure of integrated reporting in the Asian region has not been able to serve as an appropriate signal to reduce information asymmetry between stakeholders and companies and has not affected the increase in firm value. Companies that have a highly integrated reporting disclosure score do not necessarily have a high corporate value while companies that have a low integrated reporting disclosure score do not necessarily have low corporate value.

The results of the second hypothesis testing were obtained from the results of the comparison of equation 1, equation 2, and equation 3 in table 2. Of the three equations, the IR variable and the IR * COMPLS interaction variable do not meet the significance level (α> 10%, 5%, 1%) and the significance value of the COMPL variable only meets the level of 10% thus H0 is not rejected. Therefore, it can be concluded that the COMPL variable cannot be a moderator variable (ie $\beta 3 = 0$; $\beta 2 \neq 0$). Based on the results of testing the second hypothesis it can be seen that organizational complexity variables cannot moderate the effect of integrated reporting on firm value. This means that the high and low complexity of the organization in a company does not strengthen or weaken the integrated reporting relationship with firm value. Therefore, this study does not support the validity of the signaling theory. This study did not succeed in supporting the signaling theory which states that integrated reporting quality can be the best media for the company in describing the complex conditions of company management. Integrated reporting element content such as a description of the strategy and resource allocation, as well as a description of business models starting from input processes, business activities, outputs, and results that have not become important additional information for investors in the company's valuation process, especially for companies with high complexity.

Based on the results of the study, it is known that some companies have not revealed the content of the elements related to the strategy & resource allocation, outlook, and basic of preparation and presentation. Meanwhile, on the content of these elements, stakeholders are able to find out the objectives of the organization's strategy, how to achieve organizational goals and the challenges and uncertainties that might occur in the future. Regarding the content of the basic elements of preparation and presentation, companies lack information about the process of determining materiality, limitations, and material measurement methods in the integrated reporting report. On the other hand, materiality and guaranteed integrated reporting can be added value to the benefits of integrated reporting for stakeholders. Integrated reporting guarantees it is still a weakness in the reporting of integrated reporting in the Asian region which is still voluntary and subjective, namely, there is no regulation that requires companies to publish integrated reporting. Thus, there are no institutions or regulations to guarantee the disclosure of integrated reporting.

According to Jonathan Labrey, Chief Strategy Officer and Head of the Asia Pacific International Integrated Reporting Council, there is no official accreditation system by an institution in recognition of integrated reporting in the Asian region (Colvert, May 13, 2016). In addition, most companies adopt voluntary integrated reporting due to the absence of a globally acceptable framework (Bhasin, 2017). This condition can cause companies to express items subjectively and not according to the framework, namely expressing positive items and ignoring negative information. Accreditation can guarantee companies report integrated reporting in accordance with existing provisions or frameworks.

The incompleteness of the integrated reporting information reported by the company implies that the company's signals are of poor quality. Signals received by stakeholders have not been able to meet the information needs related to the complexity of the company thus they cannot reduce information asymmetry between stakeholders and the company. This has an impact on the estimates of investors or analysts in assessing the performance of a company.

This opinion is reinforced by Cohen & Lou (2012) that investors who have limited capacity and resources will find it difficult to convert information into asset prices in companies that have high complexity. So companies that have high or low organizational complexity do not affect the relationship integrated reporting and firm value. The results of this study contrast with the results of a study conducted by Lee & Yeo (2016) which shows that organizational complexity can strengthen integrated reporting relationships with firm value. Disclosure of integrated reporting in the Asian region has not been able to become the right signal to reduce information asymmetry between stakeholders and companies, especially in companies that have high organizational complexity.

Based on table 2, it can also be obtained the results of testing the third hypothesis, the comparison of equation 1, equation 4, and equation 5. From the three equations, it is known only in equation 5 IR, EKST, and IR * EKST interactions meet the significance level (1% and 5%) while equations 1 and 4 do not meet the level of significance at all thus H0 is not rejected. Therefore, it can be concluded that the EKST variable cannot be a moderator variable (ie $\beta3 = 0$; $\beta2 \neq 0$). Based on the results of testing the third hypothesis, it can be seen that external financing variables cannot moderate the effect of integrated reporting on firm value. This means that the high and low external financing in a company does not strengthen or weaken the integrated reporting relationship with firm value. Therefore, this study does not support the validity of the signaling theory. This study did not succeed in supporting signaling theory which shows that integrated reporting can be one of the company's approaches, especially those that require large external financing to maintain good relations with capital providers because the information provided indirectly reduces information asymmetry and the crisis of trust in the company.

Based on the results of these studies, it indicates that the disclosure of integrated reporting is not a signal needed by capital providers. This happens because some investors have different investment valuation methods. For investors who depend on fundamental analysis, integrated reporting is very useful as a source of investment valuation. But, for investors who depend on technical analysis, historical data plays a role as a basis for decision making. For some other investors, they prefer to use quantitative data and information sources of third person. Therefore, not all investors view integrated reporting as a source of valuation of their investments.

According to Hsiao & Kelly (2018), investors in Taiwan rely on sources of personal information and financial information such as economic data, quantitative financial information, competitive advantage, ownership structure, and management credibility. Integrated reporting disclosures are only used as additional reports and do not play as an important role in making investment decisions. Even analysts do not include integrated reporting in their analysis reports (Hsiao & Kelly, 2018). This is consistent with Campbell & Slack (2011) and Krasodomska & Cho (2017) who state that environmental disclosure and corporate social responsibility are irrelevant and very limited for financial analysis.

Based on the opinions above, it can be concluded that corporate disclosures, especially non-financial disclosures are not an appropriate signal for investors and analysts. Investors and analysts have not found the superiority of information from integrated reporting issued by the company as a value-added investment analysis report. Indirectly, there is an information gap where companies provide information that is different from what is needed by investors. Integrated reporting disclosures have not been able to bridge the gap between information provided by companies and information needed by providers of financial capital to make investment decisions (Stubbs et al., 2014). Therefore, the improvement in the quality of integrated reporting disclosure will not have an impact on investment decisions and increase the value of the company in companies with high and low external financing.

The results of this study contradict the results of previous studies which stated that external financing was able to moderate the integrated reporting relationship with the cost of capital (García-Sánchez & Noguera-Gámez, 2017) and firm value (Lee & Yeo, 2016). Disclosure of integrated reporting in the Asian region has not been able to become a signal in reducing the information gap between capital providers and companies, especially in companies that have high external financing. Accordingly, companies that have high external financing with low integrated reporting disclosures are unable to increase firm value.

CONCLUSION

Integrated reporting is a company report that combines both financial and non-financial information in one document. This report aims to explain to all stakeholders about how an organization creates value over time. So integrated reporting can be one of the company's signals to stakeholders, especially financial capital providers, to reduce information asymmetry between management and investors / creditors. The reduction in information asymmetry is expected to increase the value of the company, especially for companies that have high organizational complexity and financing. Research in the Asian region is a great opportunity because several previous studies were conducted in the South African region which is a country that requires all companies that go public to disclose integrated reporting.

Based on the data analysis and discussion previously described, it can be concluded that integrated reporting does not affect the value of the company in non-financial public companies in the Asian region in 2015-2017. In addition, organizational complexity and external financing cannot be a moderator variable. The results of this study do not support the applicability of the signaling theory and are contrary to previous research conducted in the South African region. These findings indicate that integrated reporting is not a signal needed by investors and analysts as a basis for making investment decisions. Disclosure of voluntary integrated reporting in the Asian region and the characteristics of market players (investors and analysts) in the Asian region who still rely on financial indicators, third party information, and technical analysis show that Asian stakeholders still cannot receive and utilize integrated reporting properly.

This study has research limitations that need to be considered by readers in perceiving the results obtained. The limitation is that companies that are sampled in this study are classified as small and not all countries in the Asian region have company representatives that issue integrated reporting that meets the criteria as a sample of this study. Despite the recognized limitations, the results of this study have a potential contribution to the development of integrated reporting, especially for companies, investors, and regulators in the Asian region.

Based on the results and limitations of this study, then, the suggestions for further researchers can conduct further research using content analysis techniques to determine items that are more reliable and reliable content of integrated reporting elements. In addition, in-depth interviews with investors and analysts in Asian countries are needed to get information directly related to the benefits of integrated reporting in their decision making.

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Ika Sebti Nurkumalasari
Master Student of Accounting
State University of Malang, Jl. Semarang No.5 Malang, 65145, Indonesia
E-mail: sebti.ika@gmail.com

Nurika Restuningdiah
Magister of Accounting
State University of Malang, Jl. Semarang No.5 Malang, 65145, Indonesia
E-mail: nurika.restuningdiah.fe@um.ac.id

Eka Ananta Sidharta
Magister of Accounting
State University of Malang, Jl. Semarang No.5 Malang, 65145, Indonesia
E-mail: eka.anantas@gmail.com