

EFFECTIVENESS OF DISCLOSURE IN INFORMATION ASYMMETRY IN COMPANIES LQ 45

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Abstract

This study aims to determine the Disclosure of Enterprise Risk Management (ERM) and The Disclosure of Intellectual Capital (IC) that can affect the level of information asymmetry in LQ45 companies in 2019. This study uses multiple linear regression analysis method with data collection on ERM and IC disclosure using content analysis method. The results of this study indicate that ERM disclosure is significantly negatively related to the level of information asymmetry. Meanwhile, IC disclosure has an insignificant negative relationship with information asymmetry. The limitation of this study is that there are other variables that are no less important in determining information asymmetry besides ERM and IC. In addition, the sampling in this study was only limited to 33 samples, due to the limited time that the researcher had. Suggestions from this study are, it is hoped that further researchers can disclose IC and ERM using other methods such as focus groups, panel discussions, and peer reviews so that the results obtained are more objective in using the data.

Keywords: *Asymmetry Information, Enterprise Risk Management, Intellectual Capital, LQ45*

1. INTRODUCTION

Agency theory or agency theory is one of the theories that underlie research on the extent of voluntary information disclosure. The concept of agency theory, according to Heavey, (2021), is a relationship or contract between the principal and the agent, where the principal is the party that employs the agent to perform tasks in the interest of the principal, while the agent is the party carrying out the interests of the principal. Currently, agency theory is often used to describe the company's condition from owner to manager. Fachrudin, (2011) state that if there is an equally strong economic interest drive from both parties in the relationship, it is possible that the manager cannot always make decisions that follow the wishes of the capital owner. This conflict of interest is then referred to as agency conflict. Altawalbeh, (2020) argued that one way to reduce agency costs is to increase disclosure in the annual report.

One of the factors that can be used as a reference in minimizing the level of information asymmetry is the disclosure of Enterprise Risk Management (ERM). ERM is a disclosure of managed risks or the company's efforts to control risk to overcome increased agency costs (Ardianto & Rivandi, 2018). ERM is also explained as a way for companies to carry out risk control related to the future of spikes in agency costs in the form of bounding costs (Altanashat et al., 2019). Following are some studies that explain that ERM affects information asymmetry. Research conducted Ardianto & Rivandi, (2018) found that ERM has a significant effect on company information asymmetry. Then Lata, (2020), disclosure of ERM beyond what is required by management can reduce information asymmetry between management and stakeholders. Reinforced by Nasr et al., (2019) that the application of enterprise risk management (ERM) in a company will help control management activities and minimize information asymmetry so that companies can control risks that can harm the company. In contrast to the two opinions above, research from Addara, (2017) dan Adrian & Shin, (2010) states that ERM has no effect on information asymmetry. This is because there are similarities between IC and ERM in terms of human resource development. So further research is needed regarding the effect of ERM on AI.

Besides ERM, another factor that significantly influences information asymmetry is Intellectual Capital (IC) disclosure. IC is an intangible asset, intellectual capital, that functions to increase competitive ability and can improve company performance and create corporate value Ali et al., (2021). Even though IC is classified as an intangible asset, ownership of IC can encourage increased company performance to achieve a competitive advantage (Ardianto & Rivandi, 2018). The agency costs will be less when the company's performance is superior. Solikhah et al., (2020) state that information about Intellectual Capital is one of the information investors need. This is because information about Intellectual Capital causes investors to assess better a company's ability to create wealth in the future. Such disclosure helps stakeholders to reduce their perception of risks associated with the entity and can reduce the company's cost of capital. Choiriah & Gunawan, (2018) and Brusca et al., (2019) in their research stated that The more IC disclosures reported by companies, the more significant the market perception and information asymmetry of company performance would be. Other research from Haris, (2018) states, Information about IC has a significant role, especially in information asymmetry, because it can describe a company from the side of information asymmetry in a non-financial way. Research from Hapsoro & Fadhilla, (2017) and Salvi et al., (2020) asserts that IC has no impact on information asymmetry, in contrary to the two perspectives presented above. This is due to the fact that human resource development is comparable in IC and ERM. So, more study is required to determine how IC affects AI.

Based on the above data, the significance of the correlation between ERM and IC on information asymmetry cannot be separated from the measuring instrument used. Several measurement tools are commonly used as proxies to assess the level of information asymmetry, namely Forecast Dispersion and Trading Volume Activity (Firli & Rahadian,

2020; Li & Nwaeze, 2018; Pangesti et al., 2020). However, using these two tools seems only to be able to measure information asymmetry implicitly, so it seems complicated for companies to measure the level of information asymmetry. Besides that, using the two measuring tools above requires much time to determine a company's level of information asymmetry (Hattori, 2019). For this reason, a measuring instrument is needed to measure information asymmetry explicitly and has a shorter time span. One measuring tool that can overcome this problem is the Bid-Ask Spread (Sujana, 2018).

Based on research conducted by Rahayu & Saefullah, (2021), the use of bid-ask spreads is proven to measure information asymmetry explicitly. Besides that, he added that bid-ask spreads could also increase the efficiency of the information asymmetry obtained Rodrigues et al. (2017). Fontes et al., (2018) also the bid-ask spreads measurement tool can explicitly determine information asymmetry, and the results can be known more quickly. In addition to being able to determine information asymmetry explicitly and efficiently, bid-ask spreads can also illustrate adverse selection problems that arise from stock transactions due to investors with more information, and this is also related to the provision of information to the capital market (Fauzi, 2018). So in this study, researchers used bid-ask spreads to measure information asymmetry.

This study uses the 2020 LQ 45 index as an object for research because the incorporated companies have high liquidity (Widya Saputra & Eny Kusumawati, 2021). In addition, LQ 45 2021 can also be used as a reference for many investors in making investment decisions (Astuti et al., 2021). This is because the 2021 LQ 45 data is still in the range of the last four years, so the condition of the Indonesian economy, which is still quite good, is not affected by other factors or circumstances. The name LQ itself means LiQuid, and the number 45 means the 45 shares in it. The purpose of the LQ 45 index is to complement the Jakarta Composite Index (IHSG). It is also a provider of objective and reliable tools for financial analysis, investment managers and investors in monitoring the price movements of actively traded stocks (Fernandes & Panjaitan, 2019).

Based on the findings of the problems and the solutions offered, the researcher is interested in examining the effectiveness of disclosure in information asymmetry in companies LQ 45.

2. LITERATURE REVIEW

ERM Disclosure of Information Asymmetry

Disclosure of ERM is risk control information disclosed by the company to maintain the company's survival in addition to the company's efforts to carry out transparency to build investor confidence. Fauzi, (2018) considers risk disclosure has a significant negative relationship with bid-ask spreads. Research also proves that ERM disclosure positively affects firm value, such as research Darmastuti et al., (2020), which proves a negative relationship between ERM application information and information asymmetry. Pramesti &

Budiasih, (2017) found that risk disclosure can reduce the level of information asymmetry and also states that information regarding risk reviews helps external investors estimate future cash flows. There is a negative relationship between ERM and information asymmetry.

Based on the link between ERM disclosure and information asymmetry and evidenced by the previous studies described above, the first alternative hypothesis that can be formulated is:

Hypothesis 1: Disclosure of enterprise risk management (ERM) has a negative effect on information asymmetry.

Disclosure of IC and Information Asymmetry

Disclosure of intellectual capital disclosed in the company's annual report can attract investors to invest in the company due to the availability of better information. Intellectual capital disclosure is one way to reduce agency problems, namely information asymmetry. Disclosure of IC is also one of the relevant information to reduce information asymmetry between issuers and various participants in the capital market. Based on research conducted by Fahmi et al., (2019), disclosure of more IC information provides a potentially necessary means of completing the small amount of information available, thus reducing the problem of information asymmetry.

According to Brusca et al. (2019), disclosure of intellectual capital is needed by investors because it reflects the company's capabilities in the future. He also said that IC has a negative effect on corporate asymmetry. Basically, with the disclosure of IC, non-financial activities carried out by the company will be provided to the public and result in reduced information asymmetry because previously, those who did not know about these activities now know about them (Solikhah et al., 2020).

Based on the link between IC disclosure and information asymmetry and evidenced by the previous studies described above, the second alternative hypothesis can be formulated as follows:

Hypothesis 2: Disclosure of intellectual capital (IC) has a negative effect on information asymmetry.

The relationship between one variable and another can be seen in Figure 1.

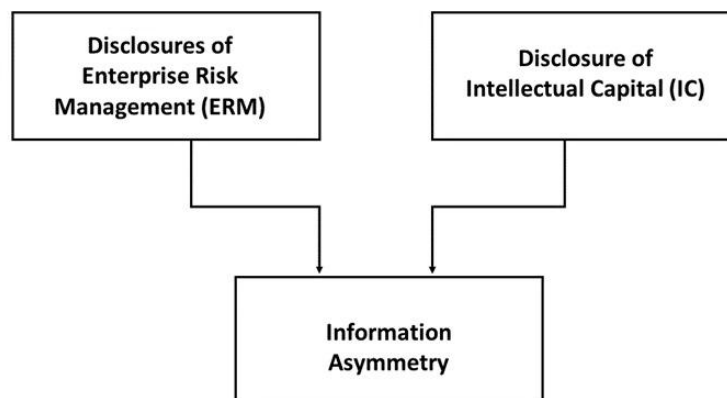


Figure 1. Thinking framework

3. METHOD

This type of correlational research is designed to examine the causal relationship between variables, namely how much influence enterprise risk management (ERM) disclosures and intellectual capital (IC) disclosures have on information asymmetry. Meanwhile, to analyze the influence between variables using multiple linear regression analysis techniques. The population in this study are LQ 45 companies registered on the IDX and published their annual reports for the 2020-2021 period on time. The specific criteria in this study are companies that are consistently in the LQ 45 index for 2020-2021. Therefore, 40 companies consistently exist at LQ 45 as a sample. Research data was collected by documentation and observation methods from data obtained from the idx.co.id website. In addition, the data analysis includes descriptive statistics, classical assumption tests, and research hypothesis tests.

4. RESULT AND DISCUSSION

Descriptive Analysis Results

The descriptive analysis in this study serves as a description of the data obtained from the research results. Descriptive statistical analysis contains the maximum, minimum, mean, and standard deviation values. The statistical results of the description can be seen in Table 1.

Tabel 1 Descriptive Analysis Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ERM	33	19.44	51.85	32.0426	8.65177
IC	33	9.52	39.29	23.1962	7.97553
AI	33	0.47	4.44	2.0152	0.98144
Valid N (listwise)	33				

Based on Table 1, it is known that ERM disclosure has a minimum value of 19.44 and a maximum of 51.85. The mean value obtained through descriptive statistics is 31.39, the

median is 28.7 with a standard deviation of 8.72, and the number of registered companies reaches 33. Of all the data, 108 ERM items must be disclosed; however, until 2018, only 34 items could be fulfilled with an average yield of 30%. This result looks very low because there are still around 74 items that still need to be disclosed. The lowest disclosure was made by Indofood CBP Sukses Makmur Tbk, with a disclosure percentage of 19.44%. Meanwhile, the company that made the highest disclosure, namely Jasa Marga Tbk, with full disclosure of 51.85%.ta obtained from the scattering curve is suitable for use.

Next is the IC disclosure variable. This variable has a value between 9.52 to 39.28. The result for the standard deviation of IC disclosure lies in the value of 7.98. This result is still relatively low because the average company can only disclose a maximum of 19 indicator items out of a total of 84 indicator items. The total number of companies that disclose IC is the same as ERM, namely 33. However, only 5 companies have achieved an IC disclosure value of above 30%, and the rest still need to. The 5 companies include State Bank Tabungan Tbk, Bank Mandiri Tbk, Bumi Serpong Damai Tbk, PP (Persero) Tbk, and Wijaya Karya Tbk. The lowest IC disclosure was made by Indofood Sukses Makmur Tbk, with a value of 9.52%. The company with the highest IC disclosure level is Bumi Serpong Damai Tbk, with a disclosure of 39.28% consisting of 33 disclosure items and 51 undisclosed IC items.

Then the information asymmetry variable with a minimum value of 0.47% and a maximum of 4.44%. Perusahaan Gas Negara Tbk obtained the highest level of asymmetry, with a gain of 26.6. Meanwhile, companies with a minimum value or the lowest level of asymmetry are Sri Rejeki Isman Tbk companies with an acquisition rate of only 0.47. The mean value of the asymmetry variable was 2.01 with a standard deviation of 0.98 out of a total of 33 sample companies.

ERM Disclosure Results

ERM disclosure of the percentage of sample company disclosures in terms of the total score of all items that should be disclosed, Table 4.2 explains the amount of Erm disclosure for each dimension. The highest ERM disclosure dimension lies in events, namely 8.61%. They were followed by a Risk Assessment of 7.49 and a Risk Response of 7.15%. In the event identification dimension, some items described are general risks companies face, ranging from finance to company reputation. The event dimension can only get a score of 307 out of 825. Next is the risk assessment dimension. The items described in this dimension are the impact of risks from the operationalization of the company. The total score obtained for this dimension is 267 out of 825. Then, a score of 255 out of 858 is obtained from the risk response dimension. The items disclosed in the risk response dimension are the company's strategy in managing or following up on the risks.

From these three dimensions, interpretations are obtained through events, risk assessment, and response, which are the company's way of determining, assessing, and

overcoming a risk. Thus, these three dimensions usually activate the company's response to risk management. In terms of management urgency, these three dimensions determine how companies can manage corporate risk patterns.

Tabel 2 Description of Each Dimension of ERM Disclosure

ERM Disclosure Dimensions	Total Score Should	Total Score of All Items	Maximum Disclosure Percentage	Actual Disclosure Percentage
A. Internal Environment	429	177	12,03%	4,97%
B. Objective Setting	198	70	5,56%	1,96%
C. Event	825	307	23,14%	8,61%
D. Risk Assessment	825	267	23,14%	7,49%
E. Risk Response	858	255	24,07%	7,15%
F. Control Activities	231	29	6,48%	0,81%
G. Information and Communication	99	37	2,78%	1,03%
H. Monitoring	99	30	2,78%	0,84%
Total	3564	1142	100%	32,88%

IC Disclosure Results

A description of each IC disclosure and the percentage of sample disclosures can be seen in Table 4.3. Human resources and strategy obtain the highest percentage of IC disclosure dimensions, with values above 6%. The human resource dimension describes various sub-items regarding gender, education level, and age, as well as training facilities provided by the company to develop the potential of its workers. The value obtained by human resources was 9.81% of the total score of 272 out of 957. This dimension is also usually referred to as a center for developing productive workers and can make companies better in terms of the quality of their workers. In addition, human resources also function as a determinant of the company's direction in terms of determining solutions to various problems that arise within the company. Companies with high human resources can easily overcome internal problems that arise due to the lack of cohesiveness of the company's workers. So, few companies want to improve the quality of their workers to compete in disclosing HR profiles.

Furthermore, strategy is the dimension that occupies the highest peak after human resources. This dimension describes various items, such as the impact that the company will receive in the future on its coping strategies. The percentage obtained from the strategy dimension is 7.91%, disclosing 219 items out of 495. This high score cannot be separated from various companies competing to reveal their success strategies in improving company performance, primarily related to the company's marketing aspects. Based on the dimensions explained above, human resources and strategy are dimensions that can maintain a

company's superiority, especially in competing with its competitors. Most companies disclose their intellectual property through human resources and strategy dimensions.

Tabel 3 Description of Each IC Disclosure Dimension

IC Disclosure Dimensions	Total Score Should	Total Score of All Items	Maximum Disclosure	Disclosure Percentage
A. Human Resource	957	272	34,52%	9,81%
B. Information Technology	198	27	7,14%	0,97%
C. Research & Development	297	26	10,71%	0,93%
D. Process	264	19	19,52	0,68%
E. Strategy	495	219	17,85%	7,9%
F. Customer	561	80	20,23%	2,88%
Total	2772	643	100%	23,19%

Information Asymmetry (AI) Descriptive Statistical Results

One of the determining factors for a company to be trusted by various groups is a low level of information asymmetry. Information asymmetry is the degree of knowledge management possesses that is higher than the owner and other related groups. Information asymmetry in this study uses projected bid-ask spreads whose descriptive statistical results can be seen in Table 4.1. Information asymmetry has a minimum value of 0.47 and a maximum of 4.44. The average value obtained is 0.98, with a standard deviation of 1.05. The sample population in this study amounted to 33 LQ45 companies. Gas Negara Tbk Company obtained information asymmetry with the highest value at 4.44%. Meanwhile, the company with the lowest level of asymmetry, Sri Rejeki Isman Tbk, was 0.47%.

Normality Test Results

The data normality test aims to test whether, in the regression model, the residual values are normally distributed (Sugiyono, 2018). Data can be normally distributed if the plotting and residuals are spread along the diagonal line and in the direction of the diagonal line, or if the histogram graph shows a normal distribution pattern. This study uses the One Sample Kolmogrov-Smirnov Test with a significance level (alpha) of 5%. If the significance level is above 5%, it is normally distributed. The normality test results can be seen in Figure 2.

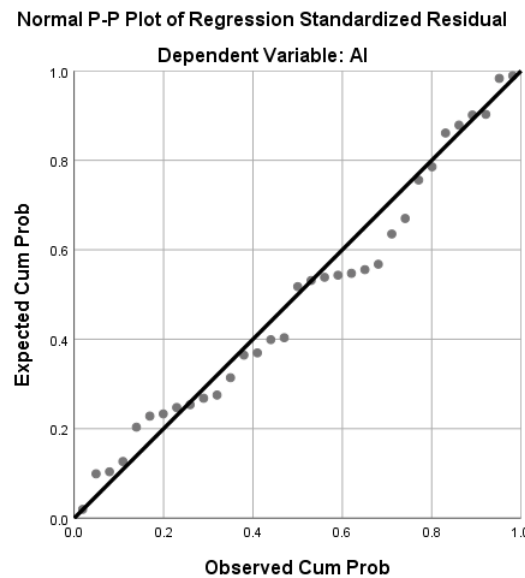


Figure 2 Normality Test Results with P-Plots

Based on the graph, it is known that the data obtained is usually distributed. Some data bits are not evenly distributed, so they seem to have come out of the linearization path. The data were then analyzed using the One-sample Kolmogorov-Smirnov method to increase confidence in whether the data were normally distributed. The results of the normality test using the Kolmogorov-Smirnov one-sample method can be seen in Table 4.

Table 4 Normality Test Results with Kolmogorov-Smirnov

Effect	Asymp. Sig.	Monte Carlo Sig.	Information
LK+SV -> KG	0,100	0,05	Normal

In Table 4, it is explained that the results of normality calculations using the Kolmogorov-Sminov method show the significant value of Asmp. Sig. (2-tailed) higher than 0.05. Indicates that the data is usually distributed. These results are by research conducted by (Hakib, 2019) that the data is said to be normally distributed if the Asmp. Sig. (2-tailed) shows a value higher than 0.05.

Multicollinearity Test Results

The multicollinearity test aims to test for a correlation between independent variables (Sugiyono, 2018). A good regression model should not correlate with the independent variables. If the independent variables are correlated, then these variables are not orthogonal. Orthogonal variables are independent variables equal to zero. To detect the presence or absence of multicollinearity in the regression model by looking at the variance inflation factor (VIF) value. If the VIF value is greater than 10, multicollinearity occurs Sucipto & Chasanah, (2019) tolerance functions as a differentiator between one independent and another.

Table 5 Multicollinearity Test Results

Variable	Collinearity Statistics	
	Tolerance	Variance Inflation Factor (VIF)
ERM	0.711	1.406
IC	0.711	1.406

Based on Table 5, the tolerance value obtained is more than 0.1, and the VIF obtained does not reach 10, so the data does not have multicollinearity. The results obtained are supported by the statement, data with a tolerance area higher than 0.1 and a VIF value lower than 10 can be said that the data does not have multicollinearity or get good linear regression results.

Heteroscedasticity Test Results

The heteroscedasticity test is used to test whether, in the regression model, there is an inequality of variance from the residual from one observation to another. How to detect heteroscedasticity is. See if there is a specific pattern, such as the dots forming a particular regular pattern (wavy, widened, then narrowed). On the other hand, homoscedasticity occurs if there is no clear pattern and the points spread above and below the number 0 on the Y axis. Data that do not experience such symptoms can be considered suitable for research use. Furthermore, Figure 4.2 obtained does not show symptoms of heteroscedasticity by showing that the data do not overlap one another and the data obtained is precise that does not form a specific pattern along the Y axis. Therefore, the data obtained from the scattering curve is suitable for use.

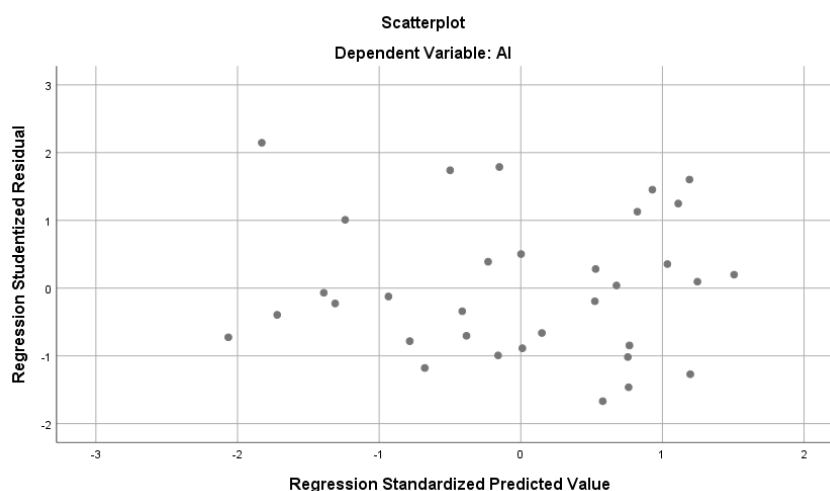


Figure 3 Heteroscedasticity Test Results

Results of Multiple Linear Regression Analysis

Multiple linear regression analysis is a method that aims to determine the relationship between the two independent variables, namely ERM disclosure and IC disclosure on the

dependent variable or information asymmetry. The relationship between the two is measured through several coefficients obtained. The results of linear regression analysis can be seen in Table 6.

Tabel 6 Results of Multiple Linear Regression Analysis

Variabel	Koefisien Regresi (β)	Koefisien (R^2)	Determinasi	Koefisien Korelasi (R)
Konstanta	3.978			
ERM	-.071	0,287		0,331
IC	-.014			

Based on Table 6, it is known that multiple linear regression analysis is obtained through the regression equation in the form of:

$$Y = 3,978 - 0,287 \text{ ERM} - 0,331 \text{ IC} + 71,3\%$$

From the equation above, it can be interpreted as follows:

1. When the ERM and IC disclosure values are 0 (constant), the AI or Y values obtained are 3.978.
2. When the ERM obtained increases by 1%, the AI value obtained decreases by 0.71 with a percentage of 7.1%. However, when ERM decreases by 1%, the AI obtained will increase by 0.71 with a percentage of 7.1%. Assume that IC is constant or does not change.
3. Furthermore, when the IC increases by 1%, the AI obtained will decrease by 0.014 with a percentage of 1.4%. However, when there is a decrease in the IC obtained by 1%, the AI obtained increases by 0.014 with a percentage of 1.4%. Assume that the ERM value is constant or does not change.
4. From Table 6, the coefficient of determination R^2 is 0.287, with a percentage of 28.7%. This figure means that the effect caused by the independent variables of ERM and IC disclosures on AI is 0.287 or 28.7%. Furthermore, these results are used as a reference for calculating the remaining variables that influence research by 100-28.7% to 71.3%.

Significance Test Results t

The t-significance test provided information about a significant relationship between the independent variables of ERM and IC disclosures on the dependent variable AI used. In order to measure the significance level, a significance level value of less than 5% is required. Furthermore, to measure whether or not there is an influence between these variables, a condition is also needed in the form of a count value that must be greater than the table. However, the values obtained show no effect between the ERM disclosure variables on AI and IC on AI. The results of the t-significance test can be seen in Table 7.

Tabel 7 Significance Test Results t

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.978	.584		6.815	.000
ERM	-.071	.020	-.628	-3.549	.001
IC	-.014	.022	-.113	.639	.529
a. Dependent Variable: AI			T _{tabel} = 2.042		

1. ERM Disclosure of Information Asymmetry

Based on Table 7, the results are a tcount of -3.549 with a significance of 0.001. The results of the t-test showed a negative sign indicating that ERM disclosure has a negative effect of 3.549 with a significance level of less than 0.05. These results indicate that H1 is accepted because the $t_{count} > t_{table}$ with a significance level of < 0.05 . When these results are interpreted, ERM disclosures negatively and significantly affect AI in companies listed on LQ45 2020-2021.

2. Disclosure of IC Against Information Asymmetry

The results of 7 are also obtained in the form of a t value of IC of 0.636. This result is smaller than the t table. So, it can be interpreted that IC does not affect AI. Besides that, the significance value obtained was 0.329. This result is far greater than the value that should be obtained, namely 0.05. It can also be interpreted that IC has no insignificant effect on AI. Based on the above results, it was found that IC did not have a negative and significant effect because the $t_{count} < t_{table}$ and the significance level obtained was > 0.05 or H2 was rejected. The conclusion reached in IC disclosure does not have a non-significant effect on AI in companies listed on LQ45 2020-2021.

Simultaneous F Test Results (ANOVA)

The F test provides information about the influence of the independent variables of ERM and IC disclosures on the AI dependent variable simultaneously. Besides that, the F test also determines the correctness of the multiple linear regression analysis used. The model's accuracy, in this case, was also tested using the F test. The model is feasible when the significance value of F is less than 0.05, and the Fcount obtained is higher than Ftable. The results of the F test are shown in the ANOVA Table or Table 8.

Tabel 8 ANOVA Test Results

Connection	Tcount	Ttable	Sig.	Information
ERM + IC → AI	7.432	1.652	0.002	Accepted and Influential

Based on the results of the F test shown in Table 4.8, the Fcount value is 7.434. This result is greater than the Ftable, which is equal to 3.310. These results are consistent with research conducted by (Indrianti et al., 2018); variables X1 and X2 have an effect simultaneously when the Fcount values obtained are higher than Ftable. Besides that, the

significance level obtained was 0.002. This result is much smaller than 0.05, meaning that the independent variables of ERM disclosure and IC significantly affect the AI dependent variable. Based on the results above, the disclosure of Erm and IC has a simultaneous and significant effect on the AI or linear regression model. It can be concluded that the selected regression model is appropriate or well-suited.

Effect of Enterprise Risk Management (ERM) Disclosure on Information Asymmetry

Based on the data analysis that has been carried out, the results of ERM disclosure have a significant negative effect on AI in companies listed on LQ45. -ask spreads or AI value of 1.51%. Meanwhile, Indofood CBP Sukses Makmur Tbk obtained the lowest disclosure value, with a disclosure percentage of only 18.51%. The company got a high AI percentage of 3.6%. This amount is among the highest for companies with high average annual bid-ask spreads.

From the data above, the results show that the higher the ERM item disclosed or published by a company, the lower the level of information asymmetry that occurs in a company. These results also show that if a company discloses ERM voluntarily, it will have a responsive impact on people who want to invest in the company. Because in general, people believe that companies that carry out ERM disclosure can predict a company's future and going concerns (Altanashat et al., 2019).

Furthermore, the dimensions obtained the highest scores from ERM disclosure, namely Event Identification, Risk Assessment, and Risk Response, with percentage levels of 8.61%, 7.49% and 7.15%. From these three dimensions, the company understands how the company determines, assesses and overcomes risk. Thus, these three dimensions usually activate the company's response to risk management. In terms of management urgency, these three dimensions determine how companies can manage corporate risk patterns. This dimension is also helpful for stakeholders in deciding to make an investment or divestment. Besides that, the company can also overcome the transparency of the risks faced by investors or other parties interested in it.

Disclosure of risk management can be used as a reference in finding a company's risk profile so that it can overcome the level of problems obtained in the form of a solution model used by investors. In addition, risk transparency can minimize the miss information that investors get because the information obtained is more accurate and effective (Gallagher et al., 2020). Furthermore, regarding the dimensions of ERM disclosure, which has the lowest percentage score, namely Control Activities of 0.81%. The company that disclosed the highest control activities was obtained by PP (Persero) Tbk, with a percentage level of 33% (6 out of 7 completed items). This result is quite far away because the majority of companies that complete almost all items are only one company. This dimension describes the activities set out of a structured policy to overcome the increased risk due to errors made by management when giving wrong instructions (Ivanov & Dolgui, 2019). Control activities

are usually implemented across multiple lines, independent of the entity, stages of business processes and the corporate environment.

Suitable control activities can be carried out through the segregation of duties so that you can easily control the activities being carried out. This dimension is preventive or detective, so the scope is more comprehensive. The scope is in the form of activities that have been automated or manual, such as activities that require authority, verification, reconciliation, and company performance reviews (Mwangi & Muturi, 2018). Activities that require authority are activities that have guaranteed legality so that they can more easily identify a risk. Risks whose identity is known can be anticipated. The most frequently used preventive activities are verification and reconciliation.

According to Patel et al., (2019), control activities with a preventive nature tend to develop and document policies and procedures, also tend to implement control activities through business units or Functional leaders, and carry out assessments and Ad Hoc. From this statement, it can be concluded that control activities have a complete variety of development; however, on the one hand, as a developer, it is not permissible to make it a standard reference. Several reasons may occur in a company that it does not disclose control activities in detail, namely the existence of acts of misuse of records to the theft of assets by employees. Most companies listed on LQ45 do not disclose this dimension because it is susceptible and private.

However, this disclosure is highly anticipated by investors because it can reduce information asymmetry. Nestle et al., (2019) explain that when you want to reduce the level of information asymmetry (of a company, companies need to disclose or communicate personal information. Even though this dimension cannot provide reasonable certainty, it can still be used as a reference for overcoming or identifying various risks faced, primarily related to controlling activities. This dimension is also an essential part of the item to disclose because it can help investors and stakeholders determine an investment decision.

Another reason why companies are reluctant to disclose the dimensions of control activities is because there is a concession in the ERM disclosure provisions regarding the minimum requirements for items that must be disclosed. This is, of course, also the cause of non-financial companies being less scrupulous about ERM disclosure tools and more comfortable presenting information that is general and for public consumption. However, on the one hand, when a company is indifferent to ERM disclosure, it must be prepared to endure the increase in information asymmetry that occurs, which causes various risks to arise.

The results of disclosure from these various dimensions follow the research that has been conducted Agatha & Juniarti, (2017), which shows that risk disclosure has a negative effect on bid-ask spreads. Based on the research results obtained, requests related to risk reporting are more interesting, especially in ERM disclosure. This is expected to be a reference for

investors and stakeholders in making decisions. Implementing this risk disclosure is important because the analysis of ERM can be a reference for them in investing in the future.

Investors assume that companies that disclose ERM are companies that have good credibility. Besides that, the more companies that disclose items from ERM, the higher the perception of investors who think the company is committed to managing risk (Nasr et al., 2019). On the other hand, company stakeholders will get far more information to reduce information asymmetry. The higher transparency of the company towards investors or the public can increase the trust and value of the company in the eyes of investors.

Other studies also suggest that risk disclosure can be used as an instrument in minimizing corporate information asymmetry behavior, especially in avoiding opportunistic behavior of a manager (Bergh et al., 2019). The implementation of good risk management from a company can be seen from the behavioral patterns of managers when transforming information on the risks they face into the thoughts of each stakeholder. With good information transfer, of course, stakeholders can anticipate the behavior of managers when committing fraud that is not in accordance with the ideology of stakeholders. Thus, when a manager discloses ERM in a transparent manner, stakeholders must have the same information as the manager. These results can be confirmed that managers or companies that make ERM disclosures are able to minimize the occurrence of information asymmetry because stakeholders have important risk-related information used for investing.

Overall, companies with high levels of ERM disclosure are usually used as references by investors in making investments. In addition, high ERM disclosures cause investors to understand that transactions that occur annually by companies are fair values, causing bid-ask spreads to be small (Hapsoro & Fadhillah, 2017; Michaels & Grüning, 2017). From the results of this study it was also found that there are still many companies that have not disclosed ERM, so there is a need for a regulator to bridge the company in disclosing ERM. With a significant increase in ERM disclosure, of course it can minimize the risk of stakeholders making a bad assessment of the market. Furthermore, with this disclosure, stakeholders have references related to factors that can reduce information asymmetry, especially for investors and reduce the cost of capital.

The Effect of Disclosure of Intellectual Capital (IC) on Information Asymmetry (AI)

Furthermore, regarding the effect of disclosure of Intellectual Capital (IC) on Information Asymmetry (AI). From the results of the research analysis that has been done, it is found that IC disclosure does not significantly influence Information Asymmetry. Bumi Serpong Damai Tbk obtained the highest percentage level. With a disclosure presentation of 39.28% with relatively small information asymmetry, the Bumi Serpong Company also disclosed a high ERM. Until now, research on IC disclosure against AI is still rare. The results align with this study, namely from Solikhah et al., (2020), who also obtained similar results that IC disclosure did not have a significant effect on AI.

Other empirical evidence that discusses the disclosure of IC is from (Brusca et al., 2019; Solikhah et al., 2020). However, it does not relate to information asymmetry but relates to the disclosure of IC in the prospectuses of companies conducting IPOs with a level of underpricing. According to Wong et al., (2017) underpricing is the cost of the issuer's main capital and one of the three initial public offering anomalies. Broadly speaking, information asymmetry has been widely used as a model for determining the basis of underpricing (Maji & Goswami, 2018). Therefore, this study can be used as a reference in justifying the discussion regarding IC disclosure of information asymmetry. Based on the research conducted Michaels & Grüning, (2017), IC disclosure significantly affects the level of underpricing. It was further said that the IC disclosure results obtained were higher than the data obtained from the results of data analysis. The high IC disclosure results significantly affect underpricing and can reduce data obtained randomly.

Several factors cause IC to be insignificant to AI. The first reason is the small disclosure factor made by companies listed on LQ45, causing no positive significance to information asymmetry. The second reason is that variables other than IC disclosures have a more significant influence. Variables that significantly influence information asymmetry are Good Corporate Governance (GCG), Conservatism Accounting (CA), Real Earnings Management (REM) and Corporate Social Responsibility (CSR) (Sugiyanto & Candra, 2019). The third reason is that the IC level obtained is so small that it is unable to bridge the discussion regarding the effect of IC disclosure on information asymmetry. The results obtained regarding IC disclosure compared with research obtained by Maji & Goswami (2018) can be seen in Table 9.

Tabel 9 Comparison of IC Disclosures

Dimensi Pengungkapan IC	Data Sampel	Data Penelitian Maji & Goswami, (2018)
A. Human Resource	28%	45%
B. Information Technology	14%	54%
C. Research & Development	9%	40%
D. Process	7%	65%
E. Strategy	44%	52%
F. Customer	14%	23%
Rata-rata	19%	47%

Based on the data in Table 9, the average value for disclosing intellectual capital from each dimension worked out is 19%. Meanwhile, from the source, the IC obtained reached an average value of 47%. This difference is too great, because the companies listed on LQ45 mostly do not disclose IC, so there is a quite significant gap between the data obtained and the source. The reason for many companies not disclosing IC is because companies in LQ45 consider that information related to IC is not a consumption for various parties. IC is usually only known by a few groups, so disclosure is still limited in Indonesia. On the other hand,

there are no binding regulations regarding companies that must disclose IC so that companies are still free not to provide reports related to IC.

Supposedly, companies should start moving from some skewed assumptions regarding IC disclosure because it will have an impact on investors who will invest their money. Investors think IC is an important factor in investing. Disclosure of intellectual capital, such as IC basically, can increase the relevance of the company's financial statements, can be used to assess the level of company trust in employees and stakeholders, can prevent unfavorable rumors and gossip, and can provide evidence about the true value of the company (Parshakov & Shakina, 2020). According to Salvi et al., (2020), with IC disclosure, investors can obtain additional information when they want to invest. Investors also assume that companies that make IC disclosures have high corporate accountability values, are known to be smart in minimizing agency costs, and investors also understand the relationship between company officials and their marketing managers.

Furthermore, other things are different regarding disclosure of IC in Indonesia. In countries such as Italy and India, the dimensions that are most frequently disclosed or have the highest percentage are the Strategy, Research & Development, and Process dimensions. In contrast to what was done in Indonesia, the highest IC disclosures were obtained by Human Resources, Information Technology, Strategy and Customers. As for the dimensions of Research & Development and Process, they are the lowest dimensions disclosed by LQ45 companies with values only reaching 9% and 7%. In this study, the value of the strategy dimension reached 44%, far higher than Research & Development and process. This result is interpreted that the company only focuses on the strategy dimension so that the disclosure of the Research & Development dimension is neglected. But basically this is not quite right, companies need a Research & Development dimension so that they can easily develop a product, future job prospects and better policies. When research & development is ignored, the company seems reluctant to move forward. The research & development function in a company is very crucial, especially because it relates to the sustainability of the company. When a company discloses the research & development dimension, it can trigger stakeholders to be able to develop the latest innovations for the company (Salvi et al., 2020).

Research & development is very closely related to science, especially companies in the technology and science sectors. There are several things that need to be outlined related to research & development in the technology and science sectors. The first is the problem of uniqueness. Many companies in this sector are trying to develop new drugs or novel clinical methods in a more efficient and unique way. The uniqueness of each company can certainly provoke stakeholders' curiosity in disclosing intellectual capital in the technology and science sectors they own. This certainly adds value that should be able to reduce information asymmetry.

Companies should disclose this so that stakeholders or investors can easily find out and make choices in terms of investment. Of course, this is also an important part of its relation

to information asymmetry. The higher the company discloses prices or research and technology dimensions, the higher the opportunity to reduce information asymmetry. Then the issue of accountability and setting reports from research and development is done in a different way. In general, recognized financial investments are reported through their market value periodically, so that stakeholders can easily find out developments in the value of the company's assets (Roszkowska, 2021). However, research and development has a different method, namely through financial reports which results in no information regarding market values and productivity being reported for stakeholders (Brusca et al., 2019).

As for research and development, it has a substantial contribution to the information asymmetry of a manager and stakeholders so that research and development tends to be interested in insider trading. Ali et al., (2021) stated that the insider gains of companies with research and development have a higher influence than insider gains without research and development. Basically Insiders, have more knowledge than investors regarding budget changes. The lack of effect of IC disclosure on information asymmetry is also due to the small disclosures made by companies, and the limitations of existing research because some IC disclosure data items are not clearly reflected in writing but require the subjectivity of researchers, with so much disclosure data it makes the data that researchers collect there are limitations and less maximum.

5. CONCLUSION

Based on the results of data analysis and discussion, it can be concluded from this study that ERM disclosure has a significant negative effect on information asymmetry with a value of -3,549 which indicates that $t_{count} > t_{table}$ with a significance of 0.001 which is less than 0.05. These results also prove that the higher the item disclosed from ERM, the level of information asymmetry obtained by stakeholders can be minimized. Disclosure of IC does not have a significant effect on information asymmetry. These results indicate that there are other variables such as GCG, CA, REM and CSR that have a significant effect on information asymmetry. On the other hand, there is no effect on information asymmetry because the IC disclosure results obtained are too small.

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