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# Determinant of Integrated Reporting and Green Innovation on Earnings Quality

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***ABSTRACT***

This research is to examine (1) The effect of integrated reporting and green innovation on earnings quality. (2) The frequency of board meetings moderates the positive influence of integrated reporting and green innovation on earnings quality. The results of this research state that there is a significant positive influence of integrated reporting on earnings quality, where green innovation does not have a significant influence on earnings quality. And the frequency of board meetings strengthens the positive influence of integrated reporting on earnings quality. The contribution of the research is to the development of integrated reporting and green innovation studies in companies listed on the Indonesian Stock Exchange.

**Keywords**: Integrated Reporting, Green Innovation, Board Meetings, Earnings Quality.

## I. INTRODUCTION

### I.1 Research Background

In 2013, the International Integrated Reporting Council (IIRC) developed a new form of reporting, namely Integrated Reporting or <IR>, as a solution to answer the need to measure and communicate corporate value creation. Based on its reporting framework (IR framework), integrated reporting is a concise form of communication about how strategy, governance, prospects, and performance in the external environment can create value now and in the future. As the voluntary implementation of integrated reporting increases, the global issue on the agenda related to integrated reporting is the assessment of the implications of integrated reporting for the future, especially in relation to information. Integrated reporting has implications for improving the quality of information and the scope of corporate reporting (Hoque, 2017).

Research by (Cortesi & Vena, 2019) supports this statement in its finding that integrated reporting improves the quality of earnings per share reported by companies. Previous research by (Karajeh, 2019) on the effect of voluntary disclosure on the quality of accounting information has been studied globally, and specifically research that found a positive effect of voluntary disclosure on earnings quality, contradicts the research by (Sudarma & Ratnadi, 2015) which stated the opposite.

The earnings information presented by companies is important for external parties such as investors and creditors, but it is risky because the reporting party, namely management, has different interests. Based on agency theory, the interests of managers differ from those of shareholders. This difference in interests causes management decisions to be less than optimal (Yimenu & Surur, 2019). If managers are heavily influenced by discretion in controlling earnings, the information presented will be of poor quality. Low earnings quality will reduce management's ability to convey information to the market, leading to a decrease in stock prices. This condition will cause information users to make wrong decisions due to information asymmetry.

According to (Obeng et al., 2020), there is limited research available on the impact of voluntary disclosure practices on accounting information quality and/or earnings quality but found empirical evidence that integrated reporting improves earnings quality. However, research on the impact of integrated reporting on earnings management practices has prompted several previous studies (Pavlopoulos et al., 2017). However, while financial

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reporting information has been shown to improve earnings management and reduce earnings management practices, (Hamid, 2017) found that integrated reporting does not significantly impact earnings management

Based on (Hart & Dowell, 2011), green innovation is a form of environmental innovation that focuses on waste reduction, pollution prevention, and the implementation of environmental management systems that aim to help reduce the impact of operational processes on the environment (Hart, S. L & Dowell, 2013). Green innovation is a way used by companies to achieve strategic goals by using new technologies, systems, practices, and manufacturing processes to minimize environmental damage. Research on green innovation by (Rachmawati, 2023b) which is a development of studies conducted by (Chang & Chen, 2013) and (Song & Yu, 2018) by adding the dimensions of Green Supply Chain, Green Marketing, and Green Organizational Culture, will be one of the points of novelty that will be used in this research.

The frequency of top management team meetings and firm performance are tested in this study using the variable of top management team meetings—in this case, Indonesian companies' public disclosure of commissioner board meetings—as a moderating variable. This kind of analysis has two advantages. First, this study may reveal new ways in which the board of commissioners is attempting to fulfill its role as a supervisor of management in generating value for shareholders. Second, this study can also assess the degree to which top management meetings—in this case, the Board of Commissioners—have a favorable impact on management's policies aimed at raising the caliber of business performance.

Research conducted by (Istianingsih, 2021) states that in carrying out good corporate governance supervision mechanisms, the role of Board Meetings has a positive influence on earnings quality, so this research is expected to have a positive effect on the influence of integrated reporting and green innovation on corporate earnings quality. Different results were found in research by (Lestari & Zubaidi, 2021) where board meetings have no positive effect on earnings quality. (Roy & Shijin, 2019) states that corporate earnings quality is also determined by the profitability factor, and therefore this study also uses Return on Asset and Return on Equity as control variables.

Based on the phenomenon, the inconsistency of research results, and the active role of the Board of Commissioners in maintaining company performance has a very central position, especially in carrying out the control function over management's financial policies, especially in terms of obtaining profits or business profits in accordance with generally accepted accounting principles. Therefore, this research wants to test **"The influence of integrated reporting and green innovation on earnings quality with board meetings as a moderator."**

### I.2 Research Objectives

The objectives of this research are to analyze empirical evidence as follows:

1. The influence of integrated reporting and green innovation on earnings quality*;*
2. *Board Meetings moderate the influence of integrated reporting and green innovation on earnings quality*.

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 Grand Theory

#### 2.1.1 *Agency Theory*

Agency theory implies the existence of information asymmetry that occurs between managers as agents and shareholders as principals. The possibility of the market giving a stronger response to good or bad news about the condition of one company compared to another can be said to be the strength of that response. From this explanation, it can be understood that the value of accounting information, especially that related to profit/loss, is very useful for investors, which leads to more accurate preparation of financial statements. Research by (Beaver, 2002) menyatakan bahwa, dalam *agency theory*, terdapat motivasi oportunistik dalam hal manajemen akrual dimana motivasi oportunistik manajemen secara umum dapat dilihat pada agresifnya kebijakan akuntansi yang berpengaruh pada *earnings quality*, yaitu membuat laba lebih tinggi daripada sebenarnya (overstated) sehingga laba menjadi bias atau kabur.

(Vafeas & Vlittis, 2024) state that agency theory is directly correlated with board meetings, as companies with positive financial performance tend to be influenced by a high frequency of board meetings, indicating the central role of top management in controlling all operational lines of the company.

#### 2.1.2 *Stakeholder Theory*

Freeman, (1984) defines stakeholders as groups or individuals who can influence or be influenced by an organization's goal achievement process. Clarkson, (2008) further defines stakeholders as individuals or groups with claims, ownership, rights, and interests in the company's past, present, and future activities. According to

this theory, every stakeholder has the right to know about company activities that may affect their decision-making. This is because stakeholders are believed to not only have the power to influence but also be influenced by the company. (Saputra, 2020). Therefore, stakeholder support is crucial for a company's existence and is one of the ways businesses can achieve their objectives. According to (Ganda, 2018), company's ability depends on the strategic participation of stakeholders in decision-making, making synergy between management and shareholders essential for determining the company's strategic direction. In this research, stakeholder theory is relevant to the integrated reporting implemented by companies.

**2.1.3 *Legitimation Theory***

Legitimacy theory holds that organizations, as part of society, must adhere to society's social rules. A company or organization will only survive if society recognizes that it operates based on a value system comparable to its own. According to this theory, companies must ensure their actions and products are socially acceptable, (Saputra, 2020). (Rachmawati, 2023a) states oganizations must always demonstrate that their actions align with social values, which is often done through disclosures in corporate reports like annual and sustainability reports. In this study, the variables of green innovation and integrated reporting are linked to legitimacy theory suggests that companies can use disclosure as a legitimizing tool to change public perception or expectations about their performance, by highlighting environmental achievements to divert attention from poor environmental performance.

**2.2 Hypothesis Development**

**2.2.1 The Impact of Integrated Reporting on Earnings Quality**

The IR framework (IIRC, 2013) defines integrated reporting as a procedure founded on integrated thinking. It integrates approaches that characterize an organization's impact on the environment, business, and society with data about its strategy, performance, governance, and future prospects. Aspects of value generation during the course of an organization's existence are also communicated through integrated reporting (Obeng et al., 2020; Cortesi & Vena, 2019). The following hypothesis was developed because integrated reporting significantly improves earnings quality:

***H1: Integrated Reporting has a positive effect on Earnings Quality.***

**2.2.2 The Impact of Green Innovation on Earnings Quality**

As mentioned in the research by (Díaz-García et al., 2015) there are various terms or notations used in the literature to describe innovation that means minimizing negative impacts on the environment: "green," "eco-friendly," "environmental," and "sustainable". Therefore, the purpose of allowing green innovation in an organization is to ensure the reduction of negative impacts on the environment, thereby providing great opportunities for the organization to achieve its environmental goals and benefits. Based on (Chang & Chen, 2013) there are 3 (three) main categories of green innovation or eco-innovation, namely: eco-friendly product innovation, eco-friendly process innovation, and managerial innovation which comes from research by (Damanpour et al., 2009)

Furthermore, there has been much discussion on the relationship between environmental innovation and a company's financial performance. Environmental sustainability and business performance are typically seen as trade-offs by economists. It is anticipated that management's focus will be diverted by company spending on environmental innovation. According to research by (Ahmadi et al., 2023), business earnings quality is positively impacted by the green economy. In a study by (Andries & Stephan, 2019), the same conclusion was reached: environmental innovation improved business performance. In light of the justification and findings of earlier studies, the research's hypothesis is:

***H2: Green Innovation has a positive effect on Earnings Quality.***

**2.2.3 The Moderating Effect of Board Meetings on the Influence of Integrated Reporting and Green Innovation on Earnings Quality**

The Board of Commissioners has the responsibility of broad supervision and advice, especially on policies to be taken by management. As representatives of shareholders, the monitoring function requires the Board of Commissioners to supervise management to prevent detrimental behavior and ensure that company activities are consistent with its targets and goals, and the Board's advice includes helping management make good resource allocation decisions. Research by (Armstrong et al., 2010) and (Duchin et al., 2010) states that in order to carry out their supervisory and advisory responsibilities effectively, the Board of Commissioners requires company-specific information to help them understand how and why a business decision is made and implemented with the hope of providing positive results on company performance. In line with (Vafeas &

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Vlittis, 2024), which states that there is a significant positive influence between the supervision mechanism using the proxy of board meeting frequency on earnings quality.
The explanation presented earlier is also expected to moderate/strengthen the influence of integrated reporting and green innovation on earnings quality; so the hypotheses to be used are:

***H3: Board Meetings strengthen the positive influence of Integrated Reporting on Earnings Quality;***
***H4: Board Meetings strengthen the positive influence of Green Innovation on Earnings Quality.***

According to the explanation outlined in the literature review and hypothesis development points, the conceptual framework of the research built is as follows:

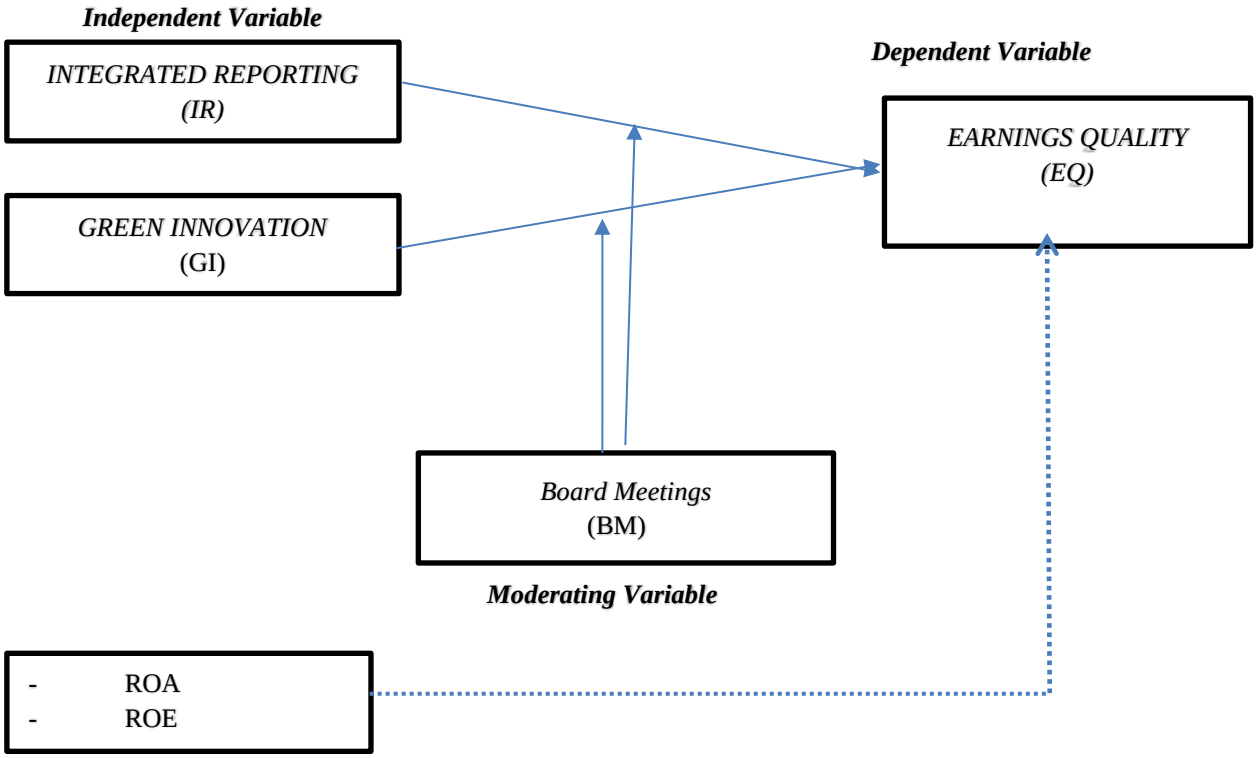



Figure 1: Model Framework

## III. METHODOLOGY

### 3.1 Sources of Data

This research has a quantitative design and hypothesis testing. Hypothesis testing is carried out by testing the influence of integrated reporting and green innovation on earnings quality, with board meeting frequency as a moderator. The research observation period is for 2 (two) years 2021-2022.

### 3.2 Variable Definition and Measurement

***Integrated Reporting* (X1)**

Based on (IIRC, 2013) is a single report that combines important elements of information that are now reported separately (financial, management opinions, governance and remuneration, and sustainability) comprehensively and, more importantly, can show the relationship between all these elements and explain how these elements can influence the organization's ability to create and maintain value in the short, medium, and long term. The core concept of integrated reporting is to provide a single report that fully integrates a company's financial and non-financial information such as environmental, governance, and social issues.
(Deloitte, 2014) states that in preparing an integrated report, the expectations and desires of stakeholders can be part of the formation of the scope, boundaries, and application of the integrated report. Therefore, several international guidelines such as the Global Reporting Initiative (GRI), the Institute of Social and Ethical Accountability, and the International Integrated Reporting Council place stakeholder engagement as a key factor in shaping the integrated reporting structure

This research uses Integrated Reporting which is measured using the IIRC (2013) approach. Based on (Adegboyegun et al., 2020) and (Rachmawati, 2023b) , researcher uses 9 (nine) elements and gives the same weight of 1 point for each element, so the maximum score for a company's integrated report is 15 (100%) according to the following formula and illustration:

$$IR = \frac{\text{Total items disclosed in each element}}{\text{The total number of items in each element}} \times 100\%$$

***Green Innovation* (X2)**

Green innovation, first proposed by (Chen et al., 2006), encompasses environmentally friendly products or processes, such as energy saving, pollution prevention, waste recycling, environmentally friendly product design, or operational environmental management. Furthermore, green innovation means creating new environmentally friendly products or processes that can improve a company's environmental performance or meet environmental requirements. Therefore, research shows that green innovation is currently a vital tool that companies can use to increase their market share and long-term survival (Liu, 2023). More environmentally friendly services, attracting customers, strengthening market position, and gaining competitive advantage are all beneficial outcomes of green innovation.

This research uses 3 (three) additional dimensions according to the study conducted by (Rachmawati, 2023b) by modifying the green innovation study from (Song & Yu, 2018) namely: Green Supply Chain, Green Marketing, and Green Organizational. The measurement of the Green Innovation variable will use the following calculation index:

$$GI = \frac{\text{Total items disclosed in each element}}{\text{The total number of items in each element}} \times 100\%$$

***Board Meeting* (Z)**

It is acknowledged that board meetings are a crucial part of efficient corporate governance. Agency theory states that a company's success may be impacted by the frequency of board meetings. Meeting more frequently promotes discussion, performance disclosure, and idea sharing in order to address agency issues. According to studies by (Nguyen et al., 2021) and (Correia & Lucena, 2019), board meetings improve corporate performance and efficiency by resolving any uncertainties and establishing agreed attitudes, expectations, and values. Regular meetings can help standardize knowledge and give a chance to talk about the advantages and disadvantages that impact business revenue.

This research uses the Supervision Mechanism variable with the indicator being the Board of Commissioners Meetings' Frequency. The Board of Commissioners has an important role in providing advice, supervision, and monitoring the discipline of management to ensure that company managers run the company in accordance with the mandate of shareholders. This condition supports (Lipton & Lorsch, 1992) which states that the Board of Commissioners has a significant impact in implementing good corporate governance. Additionally, the frequency of board of commissioners meetings is a key metric for assessing the effectiveness and level of corporate monitoring and discipline (Vafeas, 1999). A minimum of four (four) board meetings must be held in a single reporting year in compliance with POJK Number 33/POJK.04/2014 concerning Directors and Board of Commissioners of Issuers or Public Companies.

This research will measure the frequency of Board of Commissioners Meetings using a "natural logarithm" calculation of the weighted result of the Board of Commissioners Meetings that have been held in 1 (one) year. The weighting is calculated using the following scale calculation:

**Board Meetings Frequency = Ln (Weight of Board Meeting Assessment for 1 year)**

| **Board Meetings Frequency** | **Score** |
|---|---|
| > (more than) 4 times a year | 3 |
| = 4 times a year | 2 |
| < (less than) 4 times a year | 1 |

***Earnings Quality* (Y)**

The dependability and legitimacy of a company's stated earnings are referred to as earnings quality. Investors believe that information for evaluating issuer shares can be found in earnings releases (Martani & Khairurizka, 2009). Earnings that can represent sustainable future earnings—which are based on accrual and cash components and accurately represent the company's financial performance—are considered high-quality earnings. Furthermore, according to studies by (Cheng, 2014) and (López-Gutiérrez et al., 2015), profits are

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considered good quality if they can demonstrate financial performance that positively affects the business's day-to-day operations.

According to (Alarussi & Alhaderi, 2018), high-quality financial reports provide the foundation for high-quality financial information. In accounting, the capacity of reported earnings (income) to predict the company's future income is known as earnings quality. Earnings Quality is the study's dependent variable. As indicated by the following formula, the earnings quality ratio, also known as the earnings quality ratio, is computed by dividing the net cash received from operational operations by the net income of the company.

$$\text{Earnings Quality} = \frac{\text{Cash flow from Operating Activities}}{\text{Net Income}}$$

**Control Variable**

(Roy & Shijin, 2019) states that the quality of corporate earnings is also determined by the profitability factor, and therefore this research uses Return on Assets and Return on Equity as control variables.

**3.3 Data Analysis Techniques**

This study's data and information gathering method employs quantitative analysis for the earnings quality, roa, and roe variables and content analysis for the integrated reporting and green innovation variables. The secondary data used in this study is panel data, namely data from cyclical and non-cyclical companies that were listed between 2021 and 2022.

**3.3.1 Regression Model Suitability Test**

The three most commonly used regression models for estimating regression models are the General Effects Model, the Fixed Effects Model, and the Random Effects Model. They are used for panel data regression. To find the optimal estimation model, model fit tests can first be performed. These include the Chow, Hausman, and Lagrange tests.

**3.3.2 Panel Regression Analysis**

This research will use multiple linear regression statistics for panel data using the Eviews 12 application. This technique is used to test the hypotheses mentioned in the previous chapter. Regression will be used as an analytical tool. The panel data that used is cross-sectional data from 182 sample companies, and time-series data for 2 (two) years, namely 2021-2022. The total amount of data after both are combined in panel form is 366 analysis data.

According to (Gujarati & Porter, 2015), the difference in variable units and magnitudes causes the regression equation to be created with a logarithmic model to reduce the symptoms of heteroskedasticity and to determine the sensitivity between variables. Logarithmic transformation reduces heteroskedasticity, because the transformation that exposes the scale for variable measurement reduces the difference between the two values from ten times to a two-fold difference. In this study, the board meeting frequency variable, which is ordinal, is transformed using a logarithmic model, namely the Natural Logarithm (Ln), with the aim of equalizing the calculation units of other variables so that they are easy to analyze without changing the correlation or relationship between variables. Thus, the panel regression equation in this research is:

$$\mathbf{EQ = \alpha + \beta 1IR + \beta 2GI + \beta 4Ln(BM)*IR + \beta 5Ln(BM)*GI + \beta 5ROA + \beta 5ROE + e}$$

where:

EQ = Earnings Quality (Y); IR = *Integrated Reporting* (X1); GI = *Green Innovation* (X2); BM = *Board Meetings (Z)*; BM*IR = Moderating *Board Meeting - Integrated Reporting*; BM*GI = Moderating *Board Meeting - Green Innovation*; ROA = *Return on Asset* (Control 1); ROE = *Return on Equity* (Control 2)
E = error/residual; Ln = Natural logarithm

## IV. DISCUSSION

### 4.1 Description of Research Objects

The research sample was taken by purposive method, which is the selection of a sample using certain criterias, namely considering companies that routinely release Annual Reports and Sustainability Reports consecutively in 2021-2022 and excluding sample companies that experienced a loss in 2021 or 2022. After calibrating the determination of the sample criteria to be used, a final sample with a total of 366 observation objects was obtained, which will then be processed in time-series using 2021-2022 data:

**Table 1**
**Basis for Determining the Final Sample**

| No. | Information | Years | |
|---|---|---|---|
| | | 2022 | 2021 |
| 1 | Cyclical and Non-Cyclical Companies listed as of January 2024 | 282 | 282 |
| 2 | Cyclical and Non-Cyclical Companies listed in 2023 and 2024 | -32 | -32 |
| 3 | Companies that did not have complete financial reports during the research period due to delisting, suspension, and just starting an IPO in 2022 | -40 | -40 |
| 4 | Companies that did not publish sustainability reports and annual reports consistently during the research years (2021-2022) | -28 | -28 |
| Number of companies observed 2021-2022 | | 182 | 182 |

### 4.2 Statistics Results

According to the data processing results, the following descriptive statistical data was obtained:

**Table 2**
**Descriptive Statistics**

| | IR | GI | BM |
|---|---|---|---|
| Mean | 0.7699 | 0.7410 | 2.127451 |
| Median | 0.8667 | 0.8421 | 2 |
| Maximum | 1 | 1 | 3 |
| Minimum | 0.1333 | 0.2105 | 2 |
| Std. Dev. | 0.228659 | 0.19807 | 0.334298 |
| Skewness | -1.0143 | -1.36029 | 2.234328 |
| Kurtosis | 2.678891 | 4.109517 | 5.992221 |
| | | | |
| Observations | 364 | 364 | 364 |

From the statistical table above, information is obtained related to the content analysis results of Cyclical and Non-Cyclical companies for the integrated reporting, green innovation, and board meeting variables. Statistically, the average value for the quality of integrated reporting disclosure is 76.69%, the company's initiative in implementing green innovation is 74.10%, and the assessment weight for meeting frequency is at point 2 (two) or, in other words, based on the regulations set by the Financial Services Authority (OJK)

However, from a total of 366 observation samples for 2021-2022, there are still companies that have a very low disclosure value of only 13.33% and have a green innovation implementation initiative of 21.05%. This condition means that the socialization of the implementation of integrated reporting in both the Cyclical and Non-Cyclical sectors has not been fully implemented. The same thing happened with the implementation of green innovation, where there are still companies that have a very low scale of only 21.05%.

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**4.3 Regression Model Suitability Test Results**

**Table 3**
***Chow Test* (Fixed Effect Model)**

| | | | |
|---|---|---|---|
| Redundant Fixed Effects Tests | | | |
| Equation: Untitled | | | |
| Test cross-section fixed effects | | | |
| Effects Test | Statistic | d.f. | Prob. |
| Cross-section F | 1.130934 | (101,95) | 0.2727 |
| Cross-section Chi-square | 161.0642 | 365 | 0.0001 |

**Tabel 4**
***Haussman Test* (*Random Effect Model*)**

| | | | |
|---|---|---|---|
| Correlated Random Effects - Hausman Test | | | |
| Equation: Untitled | | | |
| Test cross-section random effects | | | |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
| Cross-section random | 10.39334 | 7 | 0.1674 |

**Tabel 5**
***Langrange Multiplier Test* (*Common Effect Model*)**

| | |
|---|---|
| Lagrange Multiplier Tests for Random Effects | |
| Null hypotheses: No effects | |
| Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided | |
| | Test Hypothesis |
| | Cross-section |
| Breusch-Pagan | 0.137106 |
| | 0.000 |

The Random Effect Model is the regression model used in this study, according to the findings of the model suitability tests derived from the Chow, Hausman, and Lagrange Multiplier tests. The Chow Test's Chi-Square probability value of 0.0001 (< 0.05) leads to this result, hence the Hausman Test must be used to continue the test. With a probability value of 0.1674 (> 0.05) in the Hausman Test, it satisfies the requirements for the Random Effect Model. The last test involves examining the Breusch-Pagan value and comparing it with the Common Effect Model value using the Lagrange Multiplier Test. With a Breusch-Pagan score of 0.000 (< 0.05) in the Lagrange test, the Random Effect Model is determined to be the most appropriate model for this study. According to (Gujarati, 2012), the Classical Assumption Test is no longer required if the Random Effect Model is the outcome of choosing the optimal test model.

**4.4 Correlation Test**

**Table 5**
**Correlation Test Result**

| | EQ | GI | IR | BM | MOD_BM_GI | MOD_BM_IR | ROA | ROE |
|---|---|---|---|---|---|---|---|---|
| EQ | 1.0000 | -0.0508 | 0.0235 | -0.0203 | 0.0346 | 0.0029 | -0.0039 | 0.0040 |
| GI | -0.0508 | 1.0000 | -0.3761 | -0.0174 | 0.8572 | -0.0989 | 0.0363 | 0.0346 |
| IR | 0.0235 | -0.3761 | 1.0000 | 0.0589 | -0.3051 | 0.6412 | 0.0373 | 0.0390 |
| BM | -0.0203 | -0.0174 | 0.0589 | 1.0000 | 0.4501 | 0.4526 | -0.0287 | -0.0295 |
| MOD_BM_GI | 0.0346 | 0.8572 | -0.3051 | 0.4501 | 1.0000 | 0.1481 | 0.0179 | 0.0162 |
| MOD_BM_IR | 0.0029 | -0.0989 | 0.6412 | 0.4526 | 0.1481 | 1.0000 | -0.0042 | -0.0037 |
| ROA | -0.0039 | 0.0363 | 0.0373 | -0.0287 | 0.0179 | -0.0042 | 1.0000 | 0.9886 |
| ROE | 0.0040 | 0.0346 | 0.0390 | -0.0295 | 0.0162 | -0.0037 | 0.9886 | 1.0000 |

The result shows that the relationship between the "Earnings Quality" variable and the independent variables mentioned has varying strengths but tends to be weak. For the "Green Innovation" variable, the correlation coefficient with "Earnings Quality" is -0.05076. This value shows a very weak negative correlation, which indicates that an increase in green innovation slightly tends to decrease earnings quality, although the effect can be ignored. Furthermore, "Integrated Reporting" shows a positive correlation that is also very weak with "Earnings Quality," which is 0.02352. This means there is a slight tendency for an increase in integrated reporting to be associated with an increase in earnings quality, but the strength of the relationship is minimal. Overall, these coefficient values, which are close to zero, indicate that there is no significant and strong linear correlation between "Green Innovation" and "Integrated Reporting" with "Earnings Quality" in this sample data.

For control variables, "ROA" (Return on Assets) and "ROE" (Return on Equity), their correlation with "Earnings Quality" is also very weak. "ROA" correlates -0.00390 with "Earnings Quality," showing an almost non-existent negative relationship. Meanwhile, "ROE" shows an equally weak positive correlation of 0.00398 with "Earnings Quality". The correlation coefficients that are close to zero for both of these financial performance indicators indicate that "Earnings Quality" does not have a substantial linear relationship with company profitability as measured by ROA and ROE. The interpretation of this finding is that other factors may be more dominant in determining earnings quality or that the existing relationship may be non-linear or mediated/moderated by other variables not visible in this bivariate correlation analysis. Therefore, a more comprehensive regression test will be needed to explore the mechanism of this relationship more deeply.

**4.5 Hypotheses Results**

**Tabel 6**
**Regression Resulut (*Random Effect Model*)**

| Dependent Variable: EQ | | | | |
|---|---|---|---|---|
| Method: Panel Least Squares | | | | |
| Sample: 2021 2022 | | | | |
| Total panel (balanced) observations: 364 | | | | |
| Variable | Coefficien | Std. Error | t-Statistic | Prob. |
| C | 8.340055 | 4.247156 | 1.96368 | 0.051 |
| IR | -7.08067 | 4.058506 | 1.74465 | 0.0413* |
| GI | -1.43864 | 2.191626 | -0.65643 | 0.5123 |
| MOD_IR | 9.746135 | 5.764248 | 1.69079 | 0.0462* |
| MOD_GI | 1.545388 | 2.964751 | 0.521254 | 0.6028 |
| BM | -9.5621 | 5.967476 | -1.60237 | 0.1107 |
| ROA | -3.94384 | 1.936646 | -2.03643 | 0.0431 |
| ROE | 0.069174 | 0.633748 | 0.109151 | 0.9132 |
| R-squared | | | | 0.084022 |
| Adjusted R-squared | | | | 0.046443 |
| F-statistic | | | | 2.23589 |
| Prob(F-statistic) | | | | 0.026442 |
| *sig 5% | | | | |

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**4.5.1** ***Integrated Reporting has a positive influence on earnings quality***

With a p-value of 0.0413 (significance at the 5% level), the first hypothesis test found that integrated reporting has a significant positive effect on earnings quality. This finding aligns with findings from other studies (Obeng et al., 2020) and (Cortesi & Vena, 2019), which show that integrated reporting significantly impacts earnings quality. The conclusion indicates that companies that use integrated reporting have a positive impact on the earnings quality produced.

The results support the statement from (IIRC, 2013) that the IIRC encourages the creation of integrated reporting to increase transparency and encourage improved relationships with stakeholders. This statement from the IIRC is also in line with stakeholder theory, where companies must consider stakeholder interests, and this can happen for various reasons such as managerial interests or to increase accountability, legitimacy, and transparency of the earnings produced so that the resulting earnings quality becomes positive and stakeholder trust also increases along with the disclosure of integrated financial and sustainability reports.

**4.5.2** ***Green Innovation has no positive influence on earnings quality***

The second hypothesis test reveals that green innovation has no positive impact on earnings quality, with statistic results shows a p-value of 0.5123. This finding is not in line with the research of (Ahmadi et al., 2023). It is suggested that this is because the study involves many non-cyclical sector companies—such as media, travel services, retail businesses, and property sectors—that have not widely implemented green innovation policies in their business lines. As a result, this has no significant impact on earnings quality. On the other hand, this finding is consistent with the study by (Suripto et al., 2022) where the green management variable, measured using sustainable innovation policies, has no significant influence on earnings management. Earnings management was measured by management's policies to improve earnings quality using corporate SOP instruments as a means of preventing managers from violating clauses or regulations.

According to legitimacy theory, one way companies can gain social acceptance is by demonstrating their concern through transparent social responsibility. This includes creating more environmentally friendly business process innovations, and green innovation is part of this effort. It is possible that the implementation of green innovation is still voluntary, and the costs incurred are substantial. Stakeholders might believe that these costs could be better used for company funding and operations, thus increasing company revenue. Furthermore, one of the reasons that green innovation implementation has not yet had a positive implication on earnings quality is the factor of "institutional isomorphism". (DiMaggio & Powell, 2010) divide institutional pressure into three parts: mimetic, coercive, and normative. Mimetic pressure refers to the pressure to imitate rival organizations when there is uncertainty. Coercive pressure is external pressure exerted by regulatory and other bodies. Normative pressure comes from professional communities. These three forces impact company activities and cause the implementation of green innovation to be merely a means of fulfilling stakeholder pressure to gain legitimacy. This pressure can come from the government, shareholders, or customers (Chithambo et al., 2020).

**4.5.3** ***Board Meetings strengthen the positive influence of integrated reporting on earnings quality***

Vafeas & Vlittis' (2024) research found, in testing the third hypothesis, that board of commissioner meetings has a significant positive impact on earnings quality, with a probability value of 0.0462 (significant at the 5% level). This positive and significant result indicates that the board of commissioner oversight proxy for earnings quality can be strengthened by board of commissioner meetings and also aligns with (Hamdan, 2020). A similar study (Harymawan et al., 2020) found that board meetings have a positive influence on a company's financial performance. This study suggests that frequent board meetings enhance the proxy effect of integrated reporting on earnings quality.

In line with agency theory, both agents and principals, represented by the Board of Commissioners, play significant roles in ensuring the company's performance. As an extension of shareholders, the Board of Commissioners carries out its responsibility to oversee management policies. Statistics show that the Board of Commissioners' role, through meetings with management and ensuring the company's financial statements are accurate and compliant with regulations, improves earnings quality.

**4.5.4** ***Board meetings cannot strengthen the positive effect of green innovation on earnings quality***

The results of this study contradict previous research (Mohamad et al., 2020), which found a positive relationship between board function and earnings quality. However, this study aligns with previous research (Hạnh et al., 2018) and (Istianingsih, 2021), which found that board meeting frequency had no significant effect on earnings quality. Using numerical regression statistics, this study found that the board of commissioners has not done enough to encourage environmentally friendly innovation policies aimed at improving corporate earnings quality.

Based on the research results, this condition contradicts legitimacy theory, where the implementation of green innovation, which has positive implications for both society and the environment, does not give a positive implication for the company's financial performance as measured by earnings quality. This is because companies involved in green innovation will bear large costs due to increased expenses for expanding production scale, upgrading machinery, and investing in innovation activities. This will lead to a less favorable company cash flow, increased company burden, and ultimately negative implications for company earnings.

## V. CONCLUSION, LIMITATIONS & SUGGESTIONS

### 5.1 Conclusion

This study has four main conclusions:

1. There is a positive *impact* of integrated reporting on earnings quality;
2. There is no positive *impact* of green innovation on earnings quality*;*
3. *Board meeting frequency strengthens the positive impact of integrated reporting on earnings quality;*
4. *Board meeting frequency cannot strengthen the positive impact of green innovation on earnings quality.*

### 5.2 Implication

#### 5.2.1 For Regulator

Integrated reporting impacts environmentally friendly competitive advantage. To achieve national goals and reduce greenhouse gas emissions, this will support Presidential Regulation of the Republic of Indonesia No. 98 of 2021, which implements the value of the carbon economy. Furthermore, it also supports the mandate of the Financial Services Authority (OJK), which requires all issuers to provide sustainability reports and annual reports starting in 2021. Therefore, business strategies must align with environmentally sound innovation. Furthermore, to improve the function of the Board of Commissioners, the Financial Services Authority (OJK), as the regulator, needs to amend POJK No. 33/POJK.04/2014 concerning the Board of Directors and Board of Commissioners of Issuers or Public Companies.

#### 5.2.2 For Business Practice

Businesses must implement green innovation and integrated reporting to gain an environmentally friendly competitive advantage. Green innovations such as green marketing, green supply chain management, and green organizational culture have a significant impact on green competitive advantage, so businesses should consider them going forward. This encourages businesses to consider economic, social, and environmental aspects when conducting their operations.

### 5.3 Limitations

There are several limitations in this study:

1. The samples of the research only focus on Cyclical and Non-Cyclical sectors, so the research results cannot be generalized;
2. *The time range used in this study is only two years, which affects the number of observation objects studied*.

### 5.4 Suggestions

There are three suggestions that can be used as a consideration to improve subsequent research:

1. To expand the types or business sectors of the companies used as the final sample so that the research results can be generalized;
2. For the next researcher to expand the research time range not only for two years but for the previous

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three to four years;

3. For the next researcher to try to conduct a comparative study of the implementation policies of integrated reporting and green innovation with developed countries such as Singapore or Australia so that they can capture the phenomenon of the development of policies on integrated reporting and green innovation from the perspective of both regulators and corporations as implementers.

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## Appendix

### Integrated Reporting Measurement

| Elements of The IIRC (2013) | | | | |
|---|---|---|---|---|
| **No** | **Elements** | **Basis Of Scoring** | **Maximum Score** | **Total Maximum Score** |
| 1 | External Environment | Vision and Mission | 1 | 2 |
| | | External Environment | 1 | |
| 2 | Governance | Report of Director's Profile | 1 | 3 |
| | | Report of Director's Remuneration | 1 | |
| | | Report of Board and Audit Meetings | 1 | |
| 3 | Business Model | Report of Specific Business Model Ad | 1 | 2 |
| | | Inclusion of Business Model in Report | 1 | |
| 4 | Risks & Opportunities | Report of Risk | 1 | 1 |
| | | Report of Opportunities | 1 | 1 |
| 6 | Strategy and Resources Allocation | Inclusion of strategy and resource allo | 1 | 1 |
| 7 | Performance | Environmental Reporting | 1 | 3 |
| | | CSR Performance Reporting | 1 | |
| | | Financial Performance Reporting | 1 | |
| 8 | Outlook | Report of future forecasts | 1 | 1 |
| 9 | General Reporting Guidance | General Reporting Guidance | 1 | 1 |
| **Total Maksimum skor** | | | | **15** |