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# THE CONTRIBUTION OF GREEN ACCOUNTING, CORPORATE SOCIAL RESPONSIBILITY, AND GREEN INTELLECTUAL CAPITAL TO EARNINGS QUALITY

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#### **Abstract**

This study aims to examine and analyze the contribution of green accounting, corporate social responsibility, and green intellectual capital to earnings quality in palm oil companies operating in Indonesia and Malaysia, by utilizing total assets and sales growth as control variables. This study is an associative quantitative study using secondary data. The data analysis method used in this research is panel data regression. The population in this study is all palm oil companies listed on the Indonesia Stock Exchange and Malaysia Stock Exchange within 2021-2023. The sample in this study was determined by applying a purposive sampling method, resulting in 23 research populations, which were then processed into 69 samples. The results show that green accounting, corporate social responsibility, and green intellectual capital simultaneously influence earnings quality. While green accounting has a positive effect on earnings quality, corporate social responsibility and green intellectual capital have no effect on earnings quality.

Keywords: Palm Oil Industry, Green Accounting, CSR, Green Intellectual Capital, Earnings Quality

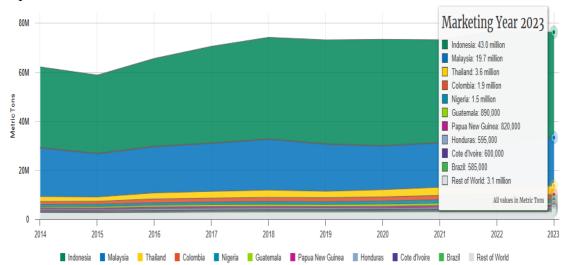
#### 1. Introduction

Tight business competition demands companies to demonstrate their ability to enhance and sustain their intrinsic corporate value. Financial statements convey important information to facilitate economic decision-making, especially for corporations seeking to utilize them. Earnings in financial statements serve as indicators of the company's operational performance. For investors, understanding earnings quality is essential in making sound investment decisions (Reyhan et al., 2014). Investors do not expect low-quality earnings information, as it signals poor resource allocation (Kartolo and Sugiyanto, 2019). Users of financial statements place high value on earnings information, motivating companies to improve earnings quality continuously. Investors seek income information to assess company profitability and cash flow information to mitigate information risk.

The palm oil industry is a vital sector for the economy of many countries. Global palm oil production increased from approximately 49 million tons in 2010 to around 75 million tons in 2021. Over the past 10 years, production increased by about 27 million tons, or 2.7 million tons annually (Sipayung, 2023). Beyond its economic contribution, palm oil plantations promote social and environmental development and create job opportunities, especially for communities in and around rural plantation areas (Putra, 2023). Indonesia is the world's largest palm oil producer, followed by Malaysia. Most palm oil plantations are located in remote rural areas where alternative employment is scarce, thereby promoting rural development and reducing poverty. According to data from the USDA Foreign Agricultural Service (Widodo, 2024), Indonesia is the world's leading producer

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and exporter of palm oil, contributing significantly to global palm oil supply, supported by favorable geographical conditions and extensive plantations managed by both large corporations and smallholder farmers.



Source: United States Departement of Agriculture Foreign (USDA)

Figure 1. Palm Oil Production Trend

However, alongside these significant economic benefits, the palm oil industry also gives rise to serious environmental issues. Companies in the mining and plantation sectors are considered major contributors to deforestation due to land expansion (Purawan and Wirakusuma, 2020). Other environmental impacts from the palm oil industry include habitat destruction, soil and water pollution, carbon emissions, and social conflicts with local communities. The Indonesian palm oil industry is discriminated against by 28 countries in the European Union, which claim that palm oil production contributes to increased deforestation in Indonesia and to global warming (BBC, 2019).

The concept of sustainability performance emphasizes the importance of sustainable corporate management by considering the economic, environmental, and social impacts of operations (Holiawati, Murwaningsari and Mayangsari, 2020). The implementation of green accounting, corporate social responsibility (CSR), and green intellectual capital is expected to offer a win-win solution in which the private sector, in collaboration with the government, takes responsibility for environmental and social consequences of business operations. Green accounting involves collecting, analyzing, estimating, and reporting both environmental and financial data to reduce costs and environmental impacts (Cohen and Robbins, 2011 in Aniela, 2012). CSR refers to activities that support corporate sustainability and impact financial performance. Companies with robust CSR practices increase investor confidence (Simaremare and Gaol, 2018). Green intellectual capital is a strategic approach to minimizing environmental damage caused by business operations. By emphasizing environmental awareness, companies anticipate that every business activity requires environmental support (Chandra and Augustina, 2019).

On the other hand, corporate management remains focused on profitability as the core business objective. Subramanyam (2014) states that earnings quality is achieved when financial statements accurately reflect the company's business activities. The three sustainability components-green accounting, CSR, and green intellectual capital-are believed to simultaneously influence firm value and profitability. However, they can also be used as tools for opportunistic managerial discretion when managers manipulate financial or non-financial reporting for personal or group benefit, often misaligned with

stakeholder interests. This study investigates the contributions of green accounting, corporate social responsibility, and green intellectual capital to earnings quality in Indonesian and Malaysian palm oil companies from 2021 to 2023.

This research extends prior work titled "The Effect of Corporate Social Responsibility and Green Accounting on Earnings Quality with Type of Industry as a Moderating Variable" (Febriyanti, Rosini and Nofryanti, 2024). This study adds green intellectual capital as a new independent variable and introduces a novel earnings quality proxy using discretionary accruals.

#### 2. Theoretical Background

## 2.1. Stakeholder Theory

Stakeholder theory (Freeman, 1984), as the grand theory of this study, emphasizes the importance of managing relationships with various stakeholder groups to achieve long-term success. This theory posits that companies must address the concerns of all stakeholders, including those focused on environmental and social issues, to create sustainable value.

#### 2.2 Signaling Theory

Signaling theory, as the middle-range theory (Spence, 1973), explains that high-quality earnings reporting can serve as a positive signal to stakeholders about a company's performance. In the context of this study, disclosures related to green practices and social responsibility are also examined as potential signals to the market.

## 2.3 Resource-Based View (RBV) Theory

The Resource-Based Theory (Wernerfelt, 1984) is used as the applied theory in this research. From this perspective, green intellectual capital is considered a unique and difficult-to-imitate strategic resource that can be used by companies to increase efficiency, reduce environmental impact, and respond to consumer demands for sustainability, thereby creating a competitive advantage.

## 2.4 Earnings Quality

Earnings quality is defined as the extent to which reported earnings reflect economic reality and accurately measure a company's financial performance (Alipour et al., 2019). It represents the reliability and usefulness of earnings information for decision-making.

#### 2.5 Green Accounting

Through the application of green accounting, environmental sustainability is expected to be maintained. Green accounting includes the collection of costs, production, inventory, waste costs, and performance metrics for the purpose of planning, development, evaluation, and control over business decisions (Hernawati A., 2018). It is a tool for integrating environmental costs into financial analysis.

# 2.6 Corporate Social Responsibility (CSR)

Elkington (1998) formulated CSR in terms of the triple bottom line: profit, planet, and people. A good company not only pursues economic profit but also cares for environmental preservation and social welfare. CSR encompasses the voluntary actions a company takes to operate in an economically, socially, and environmentally sustainable manner.

# 2.7 Green Intellectual Capital

Green intellectual capital, as proposed by Chen (2008), integrates environmental concerns into the concept of intellectual capital to address prior shortcomings in environmental issues. It represents the sum of all knowledge, capabilities, and relationships related to environmental management and innovation.

## 2.8 The Effect of Green Accounting on Earnings Quality

Research by Eksandy and Milasari (2019) concluded that environmental performance disclosures did not affect earnings quality since such disclosures are still voluntary, and investors consider the information insufficient to predict future earnings. In contrast, Febriyanti et al. (2024) found that green accounting negatively affected earnings quality because green accounting costs are significant and reduce earnings. The mixed findings warrant further investigation. Thus, the first hypothesis H1: Green Accounting affects Earnings Quality.

## 2.9 The Effect of Corporate Social Responsibility (CSR) on Earnings Quality

Research by Priscilia and Feliana revealed that CSR activities do not influence earnings quality, as they are purely acts of corporate social responsibility (Lestari and Feliana, 2021). Meanwhile, Abhirama and Ghozali (2021) concluded that CSR disclosure negatively affects earnings quality as it is used to conceal company errors and deficiencies. This contradiction necessitates additional research. Therefore, the second hypothesis H2: Corporate Social Responsibility affects Earnings Quality.

# 2.10 The Effect of Green Intellectual Capital on Earnings Quality

Research by Renaldo and Augustine (2022) found that green intellectual capital positively influences financial performance, though not significantly. Other studies have shown that green intellectual capital does not affect financial performance when proxied by ROA (Bangun, Astuti, and Satria, 2024). The direct link between green intellectual capital and earnings quality remains underexplored. Hence, the third hypothesis H3: Green Intellectual Capital affects Earnings Quality.

#### 3. Methods

# 3.1 Research Desain

This research falls under the category of quantitative associative-causal research, a method that tests a theory by examining the relationship between variables (Creswell, 2009). The goal is to test hypotheses and explain the relationships between independent and dependent variables. The population in this study consists of palm oil companies listed on the Indonesia Stock Exchange and the Malaysia Stock Exchange during the 2021–2023 period. The research sample was determined using a purposive sampling technique.

# 3.2 Dependent Varibale

The dependent variable in this study is earnings quality, which is proxied using discretionary accruals (DAC). The computational steps for measuring DAC follow the Dechow model, as outlined below:

#### 1) Calculating Total Accruals:

 $TACit = Ni_{it} - CF_{it}$ 

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Where:

TAC: Total Accruals

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NI : Net Income

CF : Cash Flow from Operating Activities

i : Company t : Period

# 2) Calculating Discretionary Accruals:

 $DAC_{it} = TAC_{it}/Sales_{it} - TAC_{(it-1)}/Sales_{(it-1)}$ 

Where:

DAC : Discretionary Accruals

TAC : Total Accruals
Sales : Total Revenue
i : Company
t : Current period
t-1 : Previous period

## 3.3 Independent Variables

# 3.3.1 Green Accounting

The measurement refers to the method used by Nguyen (2020) and Febriyanti (2024), adapted in this study to include 40 disclosure items across 9 categories.

Table 1. Mandatory Environmental Disclosure Items

| No | Sector                              | Number of Disclosure |
|----|-------------------------------------|----------------------|
| 1  | Material                            | 2                    |
| 2  | Energy                              | 5                    |
| 3  | Water                               | 3                    |
| 4  | Biodiversity                        | 4                    |
| 5  | Emission                            | 7                    |
| 6  | Wastewater and Waste                | 5                    |
| 7  | Compliance                          | 11                   |
| 8  | Suplier's Review of The Environment | 2                    |
| 9  | Environmental Complaints Mechanism  | 1                    |

Source: Nguyen dkk (2017)

 Table 2. Method for Assessing Disclosure Levels of Environmental Information

| No | Level of Information Disclosure  | Score |
|----|--|-------|
| 1  | Publication information is in quantitative and qualitative form                  | 4     |
| 2  | Only qualitative, non-quantitative disclosure                                    | 3     |
| 3  | Quantitative information in both objects and values, no qualitative information  | 2     |
| 4  | Quantitative information about values, no objects and no qualitative information | 1     |
| 5  | There is no transparency of information  | 1     |

Source: Nguyen dkk (2017)

## 3.3.2 Corporate Social Responsibility

CSR was measured using content analysis adapted from Nofryanti (2020). Eight themes are used: environment, energy, human resources, communities, products, sustainability, external relations, and other information. The scoring is as follows:

Score 1: One sentence or a few sentences

Score 2: Several paragraphs

Score 3: Half A4 page

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Score 4: One A4 page

Score 5: More than one A4 page

The scores for each theme are summed and then divided by the maximum possible score for each theme to calculate the average score obtained for each theme. According to Wati (2019) the measurement of CSR disclosure is formulated as follows:

$$CSRIj = \frac{\sum Xij}{NJ}$$

# 3.3.3 Green Intellectual Capital

Adopted from Chen and Hung (2014), GIC is measured using a dummy variable approach with 3 dimensions: 5 indicators for green human capital, 8 for green structural capital, and 5 for green relational capital. Disclosed items receive a score of 1, undisclosed items a score of 0. The formula is:

$$GIC = \frac{n}{k}$$

Where:

n : number of items disclosed by the company

k: total number of GIC items required

#### 3.4 Control Variables:

#### 3.4.1 Total Assets

Total Assets (TA) represents all assets owned by the firm, including current assets (cash, receivables, inventory) and fixed assets (land, buildings, machinery). Data source from annual financial reports (Tanjaya & Nazir, 2021).

#### 3.4.2 Sales Growth

Sales Growth (SG): The percentage change in sales revenue from one period to the next (Bozzolan et al., 2015).

$$SG = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$$

## 3.5 Comparative Analysis

Cross-country comparisons (Indonesia vs Malaysia) were conducted using disclosure scores across the three independent variables. Performance evaluation employed:

- 1) Content analysis based on SDG and GRI-G4 indicators (for GAC and CSR).
- 2) Dummy scoring (for GIC).
- 3) Subjective scale tables adapted from Prasetyo et al. (2025) and Mata et al. (2025).

#### 4. Results and Discussion

#### 4.1 Data Panel Model Selection

This study employed panel data regression analysis. Based on model selection tests, the Fixed Effect Model (FEM) was identified as the most appropriate.

Table 3. Conclusion of Best Regression Model

| Table 0. Constant of Bost Regression Model |                |                        |   |                 |  |  |  |  |
|--|----------------|------------------------|---|-----------------|--|--|--|--|
| Test Type                                  | Test Statistic | Prob. Cross<br>Section | Decision                                  | Chosen<br>Model |  |  |  |  |
| Chow Test                                  | Chi-square =   | 0.0000                 | $p < 0.05 \rightarrow Fail to reject H_0$ | FEM             |  |  |  |  |
|  | 86.881682      |                        |   |                 |  |  |  |  |
| Hausman                                    | Chi-square =   | 0.0177                 | $p < 0.05 \rightarrow Fail to reject H_0$ | FEM             |  |  |  |  |
| Test                                       | 13.690043      |                        |   |                 |  |  |  |  |

Source: Secondary data processed, 2025

Classical assumption tests were conducted, including normality, multicollinearity, heteroscedasticity, and autocorrelation.

Table 4. Classical Assumption Tests Summary

| No | Test Type          | Method<br>Used         | Test<br>Statistic /<br>Value   | Probability /<br>Criteria      | Conclusion                            |
|----|--------------------|------------------------|--|--------------------------------|---------------------------------------|
| 1  | Normality Test     | Jarque-Bera            | JB = n/a,<br>Prob =<br>0.257180                                      | P-value > 0.05                 | Normally distributed                  |
| 2  | Multicollinearity  | Pearson<br>Correlation | Correlation < 0.85   | PC criteria<br>met             | No<br>multicollineari<br>ty detected  |
| 3  | Heteroskedasticity | Glejser Test           | P-value > 0.05 (all independent variables)                           | P-value > 0.05                 | No<br>Heteroskedasti<br>city detected |
| 4  | Autocorrelation    | Breusch-<br>Godfrey    | Obs*R-<br>squared =<br>4.332432,<br>Prob. Chi-<br>Square =<br>0.1146 | Prob. Chi-<br>Square ><br>0.05 | No<br>autocorrelation<br>detected     |

Source: Secondary data processed, 2025

The results using EViews version 12 indicate:

- 1) P-value of Jarque-Bera 0.257180 > 0.05 means residuals are normally distributed.
- 2) Correlation coefficient is < 0.85 means that the independent variables in the model stand alone, do not provide redundant information to each other as well.
- 3) P-value accross is > 0.05 means that the variance of the residual (error) is constant across all observations. Model is valid for interpretation and prediction.
- 4) Prob. Chi Square is > 0.05 indicates that there is no autocorrelation detected, or residuals (errors) from the model are not correlated with each other between times or between observations.

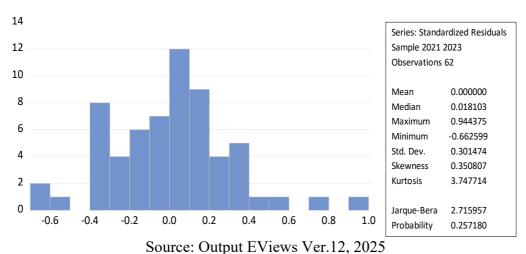


Figure 2. Normality Test Result

## 4.2 Discussion

**Table 5**. Panel Data Regression Analysis

| Variable        | Coefficient | Std. Error | t-Statistic | Prob.  |  |
|-----------------|-------------|------------|-------------|--------|--|
| C               | -5.732214   | 2.106175   | -2.721623   | 0.0101 |  |
| GAC             | 0.336383    | 0.148209   | 2.269660    | 0.0295 |  |
| CSR             | -0.155665   | 0.102285   | -1.521876   | 0.1370 |  |
| GIC             | 0.051640    | 0.139154   | 0.371097    | 0.7128 |  |
| TA              | 7.279938    | 2.345781   | 3.103418    | 0.0038 |  |
| SG              | 0.039977    | 0.077594   | 0.515212    | 0.6096 |  |
| Adjusted R-sq   | 0.597580    |            |             |        |  |
| Prob(F-statisti | 0.000026    |            |             |        |  |

Source: Output EViews Ver.12, 2025

**Regression Equation:** 

$$DAC = -5.73221 + 0.33638*GAC - 0.15566*CSR + 0.05163*GIC + 7.27993*TA + 0.03997*SG$$

Based on equality panel data regression can be concluded:

- 1) Coefficient regression for the constant (C) is -5.73221 shows that in the absence of green accounting, corporate social responsibility and green intellectual capital, earnings quality decreases by 5.73221 points.
- 2) Coefficient regression on the green accounting (GAC) has a positif value (0.33638). It means that an increase of one unit in GAC improves earnings quality by 0.33638 points with assumption that other variables are constant.
- 3) Coefficient regression on the corporate social responsibility (CSR) has a negative value (-0.15566). It means that an increase of one unit in CSR will decline earnings quality by 0.15566 points with assumptions other variables are constant.
- 4) Coefficient regression on the green intellectual capital (GIC) has a positive value (0.05163). It means that an increase of one unit in GIC will increase earnings quality by 0.05163 points with assumptions that other variables are constant.

The regression results in Table 5 demonstrate that the Prob (F-Statistic) value of 0.000026 is well below the threshold of 0.05. This indicates, collectively, the independent variables exert a significant influence on earnings quality (Ghozali, 2011). Nevertheless, when examined individually, not all variables contribute significantly. The detailed findings are discussed as follows:

Green accounting (GAC) is shown to have a significant positive effect on earnings quality. This is evidenced by the t-statistics exceeding the critical t-value (2.269660 > 1.67202), coupled with a probability value of 0.0295, which is lower than 0.05. Thus, the first hypothesis (H1), proposing that green accounting positively influences earnings quality, is supported. These results align with prior research which concluded the GAC and sustainability report influential positive to financial report quality (Nurfaidah et al., 2024).

The analysis reveals that corporate social responsibility (CSR) does not significantly affect earnings quality. This conclusion is drawn from the t-statistics being lower than the critical value (-1.521876 < 1.6720) and a probability value of 0.1370, which exceeds the 0.05 threshold. Consequently, the second first hypothesis (H2), proposing that corporate social responsibility positively influences earnings quality, is not supported. This result is supported by prior research which disclosed CSR did not influential to earnings quality (Lestari & Feliana, 2021).

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The results also indicate that green intellectual capital (GIC) has no significant effect on earnings quality. The t-statistics (0.371097) falls below the critical t-value (1.67202), and the probability value (0.7128) is far greater than 0.05. Accordingly, the third hypothesis (H3) is rejected. This outcome supports the findings of Bangun et al. (2024), which concluded that GIC does not significantly enhance firms' financial performance.

Overall, these results suggest that while green accounting plays a meaningful role in shaping earnings quality, the same cannot be said for CSR and GIC within the context of this study.

The adjusted R Square value of 0.597580 indicating that 59% of earnings quality variation can be explained by the independent variables. whereas the rest 41% is explained by other variables such as good corporate governance, earnings management, accounting method, audit quality, cash flow volatility, operational performance, firm size and age, and leverage which are not entered in the research model.

## 4.2.1 The influence of Green Accounting on Earnings Quality

The findings confirm that green accounting positively and significantly influences earnings quality. Firms practicing green accounting demonstrate improved earnings consistency, transparency, and reduced earnings management. By integrating environmental costs and compliance into reporting, firms reduce legal risks and externalities, enhancing long-term earnings stability. This supports stakeholder theory, as transparent disclosure fosters trust among stakeholders and strengthens business sustainability.

## 4.2.2 The Influence of Corporate Social Responsibility on Earnings Quality

While signaling theory suggests CSR should function as a positive signal of transparency and accountability, this study finds CSR disclosures have no significant effect on earnings quality. In practice, CSR activities may be perceived as routine obligations or even as strategic tools to obscure deficiencies. This aligns with prior studies showing CSR is sometimes ineffective in signaling true performance (Lestari & Feliana, 2021; Abhirama & Ghozali, 2021). This is probably caused by CSR activities the company carried out are only viewed as a formality, not capable enough to anticipate social matters. Even in some companies, CSR activities are used to cover errors and deficiencies to output an impressive company's performance report.

#### 4.2.3 The Influence of Green Intellectual Capital on Earnings Quality

Study shows that even though green intellectual capital (GIC) has directly influence positively to earnings quality but it does not significant in statistics way. This might be attributed to the high costs of implementing GIC, with benefits materializing only in the long term. While GIC represents a valuable intangible asset for innovation, energy efficiency, and reputation-building, its impact may not be observable in short-term financial measures such as discretionary accruals. This is possibly caused by GIC is closer to relation with long-term activity strategic like innovations, friendly environment, efficiency energy, green HR training, and reputation, while earnings quality is drafted to a short-term accountancy.

## 4.2.4 Different Disclosure between Indonesian and Malaysian Palm Oil Industries

Analysis of portion of sustainability disclosure between Indonesian and Malaysian palm oil industry is reflected through the following table:

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**Table 6**. Disclosure of Green Accounting and Corporate Social Responsibility

| Dongungkanan            | Sub Materi                             | Th 2021   |          | Th 2022   |          | Th 2023   |          |
|-------------------------|--|-----------|----------|-----------|----------|-----------|----------|
| Pengungkapan            |  | Indonesia | Malaysia | Indonesia | Malaysia | Indonesia | Malaysia |
|                         | Material                               | 2,33      | 2,75     | 2,56      | 1,57     | 2,69      | 2,00     |
|                         | Energy                                 | 3,60      | 3,75     | 3,75      | 3,71     | 3,88      | 3,57     |
|                         | Water                                  | 3,73      | 4,00     | 3,88      | 4,00     | 4,00      | 4,00     |
|                         | Biodiversity                           | 3,53      | 3,75     | 3,50      | 3,71     | 3,50      | 3,57     |
|                         | Emission                               | 3,67      | 4,00     | 3,81      | 3,71     | 3,50      | 3,71     |
| Green Accounting        | Wastewater and<br>Waste                | 3,67      | 3,88     | 4,00      | 3,71     | 3,94      | 3,86     |
|                         | Compliance                             | 3,67      | 3,63     | 3,75      | 3,71     | 3,88      | 4,00     |
|                         | Suplier's Review of<br>The Environment | 2,53      | 2,63     | 2,69      | 2,86     | 2,56      | 2,71     |
|                         | Complaints<br>Mechanism                | 3,00      | 2,50     | 3,31      | 2,71     | 3,19      | 2,71     |
| Rata-Rata P             | engungkapan:                           | 3,30      | 3,43     | 3,47      | 3,30     | 3,46      | 3,35     |
|                         | Environmen                             | 4,93      | 5,00     | 4,93      | 5,00     | 5,00      | 5,00     |
|                         | Energy                                 | 3,43      | 3,33     | 3,79      | 4,71     | 4,13      | 4,86     |
|                         | Product                                | 3,93      | 4,17     | 3,07      | 3,14     | 3,13      | 2,57     |
| Corporate Social        | Human Resource                         | 4,93      | 4,83     | 5,00      | 5,00     | 5,00      | 5,00     |
| Responsibility          | Communities                            | 4,57      | 4,50     | 4,21      | 4,71     | 4,56      | 4,86     |
|                         | Sustainability                         | 5,00      | 5,00     | 4,50      | 4,71     | 4,50      | 4,43     |
|                         | External Relation                      | 3,86      | 4,17     | 3,79      | 4,29     | 4,31      | 4,71     |
|                         | Other Info                             | 3,93      | 4,00     | 2,71      | 4,14     | 4,19      | 4,71     |
| Rata-Rata Pengungkapan: |  | 4,32      | 4,38     | 4,00      | 4,46     | 4,35      | 4,52     |

Source: Processed data Researchers

**Table 7**. Disclosure of Green Intellectual Capital

| Dangungkanan     | Sub Materi              | Th 2021   |          | Th 2022   |          | Th 2023   |          |
|------------------|-------------------------|-----------|----------|-----------|----------|-----------|----------|
| Pengungkapan     |                         | Indonesia | Malaysia | Indonesia | Malaysia | Indonesia | Malaysia |
| Green Intell     | ectual Capital          |           |          |           |          |           |          |
|                  | GHC 1                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
| Caran Harran     | GHC 2                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
| Green Human      | GHC 3                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
| Capital          | GHC 4                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
|                  | GHC 5                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
|                  | GSC 1                   | 1,00      | 1,00     | 0,94      | 1,00     | 0,94      | 1,00     |
|                  | GSC 2                   | -         | -        | _         | -        | -         | -        |
|                  | GSC 3                   | 0,93      | 0,14     | 0,56      | 0,71     | 0,63      | 0,57     |
| Green Structural | GSC 4                   | 1,00      | 1,00     | 0,94      | 1,00     | 1,00      | 1,00     |
| Capital          | GSC 5                   | 1,00      | 1,00     | 0,88      | 1,00     | 0,94      | 1,00     |
|                  | GSC 6                   | 1,00      | 1,00     | 0,88      | 1,00     | 0,94      | 1,00     |
|                  | GSC 7                   | 1,00      | 1,00     | 0,94      | 1,00     | 0,94      | 1,00     |
|                  | GSC 8                   | 0,07      | -        | 0,25      | -        | 0,06      | -        |
|                  | GRC 1                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
| G P 1 .: 1       | GRC 2                   | 0,27      | 0,14     | 0,69      | 0,43     | 0,56      | 0,43     |
| Green Relational | GRC 3                   | 0,73      | 1,00     | 0,88      | 1,00     | 0,75      | 0,86     |
| Capital          | GRC 4                   | 0,53      | 0,14     | 0,69      | 1,00     | 0,50      | 0,71     |
|                  | GRC 5                   | 1,00      | 1,00     | 1,00      | 1,00     | 1,00      | 1,00     |
| Rata-Rata P      | Rata-Rata Pengungkapan: |           |          | 0,81      | 0,84     | 0,79      | 0,81     |

Source: Processed data Researchers

Table 6 shows that in the aspect of green accounting, Indonesian palm oil firms exhibit higher disclosure levels compared to Malaysia, largely driven by international scrutiny and trade discrimination from the European Union, which associates palm oil with deforestation and climate change (BBC, 2019). On the other side, in the aspect of corporate social responsibility, Malaysian companies show stronger CSR disclosure than their Indonesian counterparts. This may reflect the prominence of social-environmental

issues in Malaysia, particularly concerns regarding forced labor (BBC, 2020) and human rights violations (Bayu, 2016).

Table 7 shows that green intellectual capital disclosure levels in both countries are relatively balanced, with dominant items related to innovation, human capital development, eco-friendly technology adoption, and sustainable supply chain management.

#### 5. Conclusion

Based on the panel data regression analysis using the Fixed Effect Model (FEM), it can be concluded that, simultaneously, the independent variables - green accounting, corporate social responsibility, and green intellectual capital - have a significant effect on the earnings quality of palm oil companies listed on the Indonesia Stock Exchange (IDX) and the Malaysia Stock Exchange during the 2021–2023 period. However, when examined individually (partial effect), only green accounting was found to have a significant positive effect on earnings quality. This implies that the higher the disclosure of green accounting practices, the better the earnings quality. Green accounting provides positive signals to investors and stakeholders, enhances transparency, and strengthens the company's reputation, particularly in the environmentally sensitive palm oil industry.

CSR and GIC, on the other hand, show no significant effects on earnings quality. This suggests that CSR is often perceived as a formality or public relations strategy rather than a determinant of financial performance, while GIC requires long-term investments whose benefits may not be reflected in short-term accounting measures such as discretionary accruals.

Future research is recommended to include additional variables such as corporate governance, earnings management, accounting methods, audit quality, cash flow volatility, operational performance, firm characteristics (size and age), and leverage, which may further explain variations in earnings quality.

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