Earnings Quality of Companies Listed on The Indonesian Stock Exchange

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Abstract—Earnings is one of the indicators used in assessing company performance and investment decisions making process. Entities that have high profit does not necessarily have high-quality earnings. This study analyzes the earnings quality of companies listed on the Indonesia Stock Exchange from 2017 to 2021. The sample in this study was 272 companies which were determined using the purposive sampling method. This study uses secondary data, namely financial statements and closing stock price information consisting of 3 days before, the day of publication of financial statements, and 3-days after publication. The study sample analyzed with the Earnings Response Coefficient (ERC). Tests are carried out every year from 2017 to 2021 using the regression test. The test results show that there is no increase in the quality of earnings for companies listed on the Indonesia Stock Exchange. The test results also show that earnings quality decreased from 2017 to 2021. Thus, stakeholders can use other financial indicators or combine profit indicators with different hands in the investment decisions making process and in evaluating company performance.

Keyword: Earning Quality; Earnings Response Coefficient; Indonesian Stock Exchange

I. INTRODUCTION

In the current era of globalization, investing in a company can be done easily. Investors can invest in various countries using digital media. This condition has led to an increasing need for financial information published by the company's internal parties. Financial information is used as one of the data for decision-making. Additionally, company management is also required to present high-quality financial information. High-quality financial information can provide confidence to users that the information is valid and reflects the company's economic reality so that stakeholders do not make wrong decisions.

High-quality financial reports not only help users but also assist company management in reporting the company's performance. It is in line with Brealey et al. (2017) that the information in financial statements reflects the management's performance and can be used to evaluate the management's performance or achievements in managing the company. It encourages internal parties to improve the company's performance. Harahap (2018) explains that company performance improves by achieving efficiency in operational activities, business expansion, restructuring, and improving the quality of the company's human resources. These efforts ultimately lead to an increase in company profits. Subramayam (2014:419) explains that company performance is reflected in the profits reported by company management. Sutopo (2007) states that profits are among the information used in investment decision-making. Investors can make the right investment decisions by using high-quality earnings information. Suwardjono (2006:463)
explains that earnings are high quality if the reported profits approximate economic profits. Additionally, Schipper & Vincent (2003) explain that high-quality earnings are profits that can be used to predict or project future earnings.

Profit is one of the performance indicators for internal parties of a company. The higher the reported profit, the greater the value of management performance. This value has an impact on the compensation received. This condition leads internal parties of the company to strive to increase the reported profit. One of the chosen efforts is using an accounting system that supports this objective. However, if the accounting system is biased, the quality of accounting profit becomes low (Dechow, Sloan, & Sweeney, 1995). Thus, high profit does not always indicate high quality, so an analysis of profit quality is needed to assist stakeholders in the decision-making process.

Amani (2023) explains that State-Owned Enterprises' profits increased. Manufacture companies, mining companies, and LQ45 companies have also recorded significant profit growth (Kementrian Perindustrian, 2023). Therefore, financial statement users need to further examine the quality of profits before using them in decision-making. This is because the profit reported by company management is not always high in quality due to biases in the accounting system (Dechow et al., 1995). The measurements that can be used to analyze the quality of a company's earnings are estimating discretionary accruals or using the Earning Response Coefficient (Sutopo, 2007).

Agency theory explains the contractual relationship between the owners and the management of a company. This theory states that owners hire management to run the company to achieve the company's goals and increase the owners' wealth Jensen & Meckling (1976). Thus, management is given the authority to make appropriate decisions and actions for the company's operations. When connected with positive theory, which explains that individuals have personal interests and will strive to maximize their own utility, there is a risk that managers will make decisions to maximize their own interests and neglect the interests of the company's owners.

The contractual relationship between management and the company's owners creates the need to assess the company's performance. This performance assessment is done by evaluating the management's efforts in managing the resources owned by the company's owners. Subsequently, this performance will be linked to the incentives obtained by the employee. The better the company's performance, the higher the incentive received by management. Therefore, management will strive to report performance improvements. Performance can be assessed as improved if there is an increase in the reported accounting profit in the company's income statement.

Supomo & Amanah (2019) explains that high-quality financial information is needed in investment decision-making. One of the financial information used is profit. In order to be used in the decision-making process, the profit reported by the company's internal parties must be of good quality. Quality profit is indicated by the relationship between a company's accounting earnings and economic earnings (Schipper & Vincent, 2003), its ability to predict the entity's future performance, and its proximity to cash flows from operating activities (Supomo & Amanah, 2019). Additionally, Dechow et al. (1995) explains that accounting profit is considered high quality when it is prepared using an unbiased accounting system. This bias is caused by the manipulation of economic transactions, the selection of unsuitable accounting methods, and inaccurate accounting estimates.

In the context of profit quality, issues arise when company owners focus on increasing the return on their investment, while management receives compensation based on the company's performance. Therefore, company management strives to report profit increases to achieve their personal interests. Consequently, their earnings will have low quality. Low-quality earnings lead to misleading decision-making based on such information. Furthermore, the accounting profit does not accurately reflect the company's actual performance (Astika, 2011).

When connected with the significant increase in profit growth of various companies in several sectors in Indonesia from year to year, this information reflects an improvement in performance. However, financial statement users cannot make accurate decisions by relying solely on this profit information. Analysis of the profit reported by internal parties must be conducted to determine its quality. The higher the quality of earnings, the lower the revision of future company performance projections and the lower the errors in decision-making (Mikhail, Walther, & Willis, 2003). Hamzah et al. (2021) in their...
II. CONCEPT AND HYPOTHESIS

Earnings quality is related to the relationship between accounting profit and a company's economic profit. If accounting profit is getting closer to economic earnings, higher the earnings quality is reported by company management. It causes decisions based on this information to be more precise and projections of future company performance to be more accurate. In addition, performance appraisal based on high-quality earnings is also increasing.

There is a relationship between company owner and management (Jensen & Meckling, 1976). However, this relationship causes a conflict of interest. This conflict can cause reduced earnings quality if the company's management reports high profits to achieve personal interests and does not reflect the company's actual performance (Dira & Astika, 2014). If it is associated with a significant increase in the profit growth of various companies in several sectors in Indonesia from year to year, this information reflects an increase in performance. However, the users of financial statements have not been able to make the right decisions if they only use the profit information. Analysis of earnings reported by internal parties must be carried out to determine the quality of earnings. The higher the quality of earnings, the lower the revision of company performance projections in the future, and the lower the error in decision-making (Mikhail et al., 2003).

Dechow & Schrand (2004) explain that there is a decrease in the quality of earnings from year to year, which is reflected in the difference between accounting profit and operating cash flow. These conditions led to the adoption of International Financial Reporting Standards (IFRS) that are expected to improve earnings quality. It is stated in a study conducted by Bangun (2014) that showed the differences in the quality of earnings before and after IFRS adoption. More specifically, a study conducted by Dalimunthe & Purwanto (2015) and Siregar (2016) explains an increase in the quality of earnings and the earnings' ability to predict future cash flows after IFRS adoption. The study is also in line with Ismail et al. (2013). Meanwhile, a study conducted by Nugraheni (2020) found that the earnings quality of companies in countries that partially adopted IFRS was higher than organizations in countries that fully adopted IFRS. Based on the results of these studies, the study hypothesis is as follows.

H1: The earnings quality of companies listed on the Indonesia Stock Exchange has increased from 2017 to 2021.

III. METHOD

Based on the background and theory, the conceptual framework is described as shown in Figure 1.

The data used in this study is quantitative in the form of financial statements of companies listed on the Indonesia Stock Exchange for the 2016-2021 period obtained by accessing www.idx.co.id or the website of each company, as well as other relevant literature related to this study. The population in this study was 848 companies listed on the Indonesia Stock Exchange. While the sample of this study was 272 companies selected based on purposive sampling. Sugiyono (2013:392) defines a purposive sampling technique as a sampling technique with certain considerations. The criteria for this study sample include:
Companies that have conducted an Initial Public Offering (IPO) no later than 2017.

Companies that are not included in the financial industry.

Companies have never been delisted from 2017 to 2021.

The company releases financial reports regularly.

Financial reports are presented in the rupiah currency.

Financial reports provide complete information to assess the quality of company earnings.

The following table presents the selection of samples using purposive sampling.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>848</td>
</tr>
<tr>
<td>Companies conducting IPO after</td>
<td>-334</td>
</tr>
<tr>
<td>2017</td>
<td>-94</td>
</tr>
<tr>
<td>Companies included in the financial industry</td>
<td>-71</td>
</tr>
<tr>
<td>Companies that present financial statements in foreign currency</td>
<td>-66</td>
</tr>
<tr>
<td>Companies that do not publish financial reports regularly</td>
<td>-11</td>
</tr>
<tr>
<td>Companies with incomplete stock price data</td>
<td></td>
</tr>
<tr>
<td>Research samples</td>
<td>272</td>
</tr>
<tr>
<td>Samples multiplied by 5 years</td>
<td>1.360</td>
</tr>
</tbody>
</table>

In this study, the variable studied was earnings quality as measured by the Earnings Response Coefficient (ERC). Nugraheni (2020) explains that ERC is a regression coefficient that comes from abnormal returns and unexpected earnings.

Accumulated Abnormal Return (ARTN)

Jogiyanto (2015:647) explains that abnormal returns occur if the actual return is greater than the expected return. Such abnormal returns can occur around the announcement of an event. This study uses the accumulation of abnormal returns (ARTN) with an observation period of seven days, namely: three days before the date of publication, the day of publication, and 3 days after the day of publication. The ARTN formula is:

\[
\text{ARTN}_{i,t} = \text{SRTN}_{i,t} \quad \text{(1)}
\]

\[
\text{RTN}_{i,t} = \text{R}_{i,t} - \text{RM}_{i,t} \quad \text{(2)}
\]

\[
\text{R}_{i,t} = \left( \frac{\text{P}_{i,t} - \text{P}_{i,t-1}}{\text{P}_{i,t-1}} \right) \quad \text{(3)}
\]

\[
\text{RM}_{i,t} = \frac{\text{IHS}_{t} - \text{IHS}_{t-1}}{\text{IHS}_{t-1}}. \quad \text{(4)}
\]

Information:

\[
\text{ARTN}_{i,t} = \text{Accumulated abnormal returns for the company i in period t}
\]

\[
\text{RTN}_{i,t} = \text{Abnormal return of company i in period t}
\]

\[
\text{R}_{i,t} = \text{Return of company i in period t}
\]

\[
\text{RM}_{i,t} = \text{Market return period t}
\]

\[
\text{P}_{i,t} = \text{Closing price of the stock on day t}
\]

\[
\text{P}_{i,t-1} = \text{Closing price of the stock on day t-1}
\]

\[
\text{IHS}_{t} = \text{IHSG on day t}
\]

\[
\text{IHS}_{t-1} = \text{IHSG on day t-1}
\]

**Expected Earnings (LK)**

Nugraheni (2020) explains that surprise profit is the difference between realized profit and expected profit. The formula for unexpected profit is:

\[
\text{LK}_{i,t} = \frac{\text{E}_{i,t} - \text{E}_{i,t-1}}{\text{E}_{i,t-1}} \quad \text{(5)}
\]

Information:

\[
\text{LK}_{i,t} = \text{Unexpected profit of company i in year t}
\]

\[
\text{E}_{i,t} = \text{accounting profit of company i in year t}
\]

\[
\text{E}_{i,t-1} = \text{accounting profit of company i in year t-1}
\]

**Leverage**

This study also uses a control variable, namely leverage. Leverage can be calculated using the ratio of debt to assets which reflects the number of assets financed using debt. The ratio formula is as follows.

\[
\text{LEV}_{i,t} = \left( \frac{\text{Total Liabilities},t}{\text{Total Assets},t} \right) \times 100\% \quad \text{(6)}
\]

These variables were analyzed using the classical assumption test and regression test. The classic assumption test consists of a normality test, autocorrelation test, multicollinearity test, and heteroscedasticity test. Furthermore, hypothesis testing is carried out using a regression test with the following model.

\[
\text{ARTN}_{i,t} = a_0 + b_1\text{LK}_{i,t} + b_2\text{LEV}_{i,t} + e_{i,t} \quad \text{(7)}
\]

Information:

\[
\text{ARTN}_{i,t} = \text{Accumulated}
\]
abnormal returns for the company $i$ in period $t$

$$L_{K,t} = \text{Surprise profit of company } i \text{ in year } t$$

$$LEV_{i,t} = \text{Leverage of company } i \text{ in year } t$$

$b_1 = \text{Earning response coefficient}$

$b_2 = \text{Regression}$

$e_{i,t} = \text{Component error in the regression model.}$

IV. RESULT AND DISCUSSION

Data analysis in this study used the SPSS application. The first stage of data analysis is the descriptive statistical test. Table 2 shows that from 2017 to 2021, companies listed on the Indonesia Stock Exchange were able to obtain an average accumulated abnormal return of 0.058; 0.082; 0.018; -0.071; 0.073. Then, these companies were also able to obtain an average surprise profit of 16,517 in 2017, 2,193 in 2018, -1,401 in 2019, 4,096 in 2020, and -13,822 in 2021. Regarding leverage, companies listed on the Indonesia Stock Exchange have average leverage from 2017 to 2021 of 54,408; 58,290; 82,099; 84,584; 86,388.

Table 2. Summary of Descriptive Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Accumulated Abnormal Returns</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>0.058</td>
<td>0.699</td>
</tr>
<tr>
<td>2018</td>
<td>0.082</td>
<td>0.717</td>
</tr>
<tr>
<td>2019</td>
<td>0.018</td>
<td>0.487</td>
</tr>
<tr>
<td>2020</td>
<td>-0.071</td>
<td>0.164</td>
</tr>
<tr>
<td>2021</td>
<td>0.073</td>
<td>0.536</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Unexpected Earnings</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>16,517</td>
<td>190,490</td>
</tr>
<tr>
<td>2018</td>
<td>2,193</td>
<td>38,019</td>
</tr>
<tr>
<td>2019</td>
<td>-1,401</td>
<td>16,804</td>
</tr>
<tr>
<td>2020</td>
<td>4,096</td>
<td>91,921</td>
</tr>
<tr>
<td>2021</td>
<td>-13,822</td>
<td>158,361</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Leverage</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>54,408</td>
<td>79,734</td>
</tr>
<tr>
<td>2018</td>
<td>58,290</td>
<td>126,154</td>
</tr>
<tr>
<td>2019</td>
<td>82,099</td>
<td>549,575</td>
</tr>
<tr>
<td>2020</td>
<td>84,584</td>
<td>465,459</td>
</tr>
<tr>
<td>2021</td>
<td>86,388</td>
<td>410,988</td>
</tr>
</tbody>
</table>

The second stage of data analysis is to test the classical assumptions, namely:

Normality test

Based on the normality test conducted, it is concluded that the data was not distributed normally. Then, data treatment is performed by cutting the data using casewise diagnostics and transforming the data using SQRT and Lg10. Data transformation using SQRT was carried out on data 2017, 2019, and 2020, while Lg10 was used on data 2018 and 2021. The normality test results on the aborted data showed that the data is distributed normally.

Autocorrelation test

The autocorrelation test was carried out by comparing the lag_res and alpha significance values of 0.05. Based on this analysis, it can be concluded that there is no autocorrelation in the regression model of this study because the significance value is greater than alpha 0.05.

Heteroscedasticity test

The heteroscedasticity test was carried out by comparing the significant value and $\alpha$ of 0.050. The results of the analysis show that there is no heteroscedasticity in the regression model of this study. This conclusion is obtained because the significance value of surprise earnings and leverage is greater than alpha 0.050.

Multicollinearity test

The multicollinearity test uses a tolerance value of more than 10% and a variance inflation factor (VIF) value of less than 10. The results of the data analysis show that there are no symptoms of multicollinearity in the regression model of this study. It is because the tolerance value is more than 10% and the VIF value is less than 10.

Furthermore, data analysis was performed with regression to test the hypothesis in this study. The data analysis was carried out with the SPSS application. The following table presents a summary of the regression analysis in this study.
Furthermore, refer to Table 3, the significance value simultaneously in 2017 was 0.101, in 2018 was 0.230, in 2019 was 0.982, in 2020 it was 0.490, and in 2021 it was 0.184. The significance value is greater than the alpha of 0.05. Thus, it can concluded that there is no increase in earnings quality from 2017 to 2021 which is analyzed using ERC and leverage as control variables. Furthermore, partially, the significance value of the ERC from 2017 to 2021 is 0.048; 0.604; 0.898; 0.968; 0.257. This value indicates that there is no increase in the quality of earnings in 2018 to 2021 which is calculated using the regression of the accumulation of abnormal returns and surprise earnings. Meanwhile, the significance value of the leverage variable from 2017 to 2021 is greater than the alpha value of 0.05. This value means that the leverage variable is not significant.

Based on Table 3, the earnings quality regression model for 2017 to 2021 is as follows.

Table 3. Regression Analysis Summary

<table>
<thead>
<tr>
<th>Year</th>
<th>Constant</th>
<th>B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>-0.920</td>
<td>0.068</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>-1.089</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>0.208</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>0.428</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>-1.889</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Unexpected Earnings B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>0.244</td>
<td>0.048</td>
</tr>
<tr>
<td>2018</td>
<td>-0.042</td>
<td>0.604</td>
</tr>
<tr>
<td>2019</td>
<td>-0.003</td>
<td>0.898</td>
</tr>
<tr>
<td>2020</td>
<td>0.000</td>
<td>0.968</td>
</tr>
<tr>
<td>2021</td>
<td>0.068</td>
<td>0.257</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Leverage B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>-0.283</td>
<td>0.336</td>
</tr>
<tr>
<td>2018</td>
<td>-0.334</td>
<td>0.119</td>
</tr>
<tr>
<td>2019</td>
<td>0.000</td>
<td>0.894</td>
</tr>
<tr>
<td>2020</td>
<td>-0.016</td>
<td>0.241</td>
</tr>
<tr>
<td>2021</td>
<td>0.220</td>
<td>0.185</td>
</tr>
</tbody>
</table>

Based on Table 3, the earnings quality regression model for 2017 to 2021 is as follows.

2017
ARTN = -0.920 + 0.244LK - 0.283Lev

2018
ARTN = -1.089 - 0.042LK - 0.334Lev

2019
ARTN = 0.208 - 0.003LK + 0.000Lev

2020
ARTN = 0.428 + 0.000LK - 0.016Lev

2021
ARTN = -1.889 + 0.068LK + 0.220Lev

The Earning Response Coefficient (ERC) value for 2017 was 0.244, 2018 was -0.042, 2019 was -0.003, 2020 was 0.000, and 2021 was 0.068. Based on these values, it can concluded that ERC has decreased from year to year. Even though there was an increase from 2019 to 2021, the improvement was not significant and did not reach the 2017 ERC value. Furthermore, refer to Table 3, the significance value simultaneously in 2017 was 0.101, in 2018 was 0.230, in 2019 was 0.982, in 2020 it was 0.490, and in 2021 it was 0.184. The significance value is greater than the alpha of 0.05. Thus, it can concluded that there is no increase in earnings quality from 2017 to 2021 which is analyzed using ERC and leverage as control variables. Furthermore, partially, the significance value of the ERC from 2017 to 2021 is 0.048; 0.604; 0.898; 0.968; 0.257. This value indicates that there is no increase in the quality of earnings in 2018 to 2021 which is calculated using the regression of the accumulation of abnormal returns and surprise earnings. Meanwhile, the significance value of the leverage variable from 2017 to 2021 is greater than the alpha value of 0.05. This value means that the leverage variable is not significant.

Earnings quality in this study was calculated using the earnings response coefficient (ERC). ERC is calculated using performance components and financial reporting. Data analysis shows that there has been no increase in the quality of earnings of companies listed on the Indonesia Stock Exchange from 2017 to 2021. Meanwhile, the control variable, namely leverage, is not significant. Based on the data analysis conducted, it also shows that the quality of earnings tends to decrease from year to year. The study result is in line with the study conducted by Dechow & Schrand (2004) and Murwaningsari (2008) that there is a decrease in the quality of earnings from year to year. The decline in the quality of earnings for companies listed on the Indonesia Stock Exchange from 2017 to 2021 reflects that the strength of the response to earnings information published by companies is weakening from year to year. Based on the study by Paramita & Hidayanti (2013), high earnings quality occurs when earnings information in financial statements has a high response power.
that actual differences in earnings information and company performance are getting bigger. In addition, interested parties also cannot use current profit information to project future company profits. Thus, interested parties must use financial indicators other than profit in decision-making. Alternatively, interested parties must combine profit and other information in making decisions.

V. CONCLUSION

Grounded by the results obtained and described above, it can be concluded that there is no increase in the quality of earnings from 2017 to 2021. This study also shows that earnings quality tends to decrease from year to year. Based on ERC values from 2017 to 2021, it indicates that current earnings information does not reflect actual company performance and cannot be used to project company performance in the future. Based on study results, suggestions are given to companies to present profit information in accordance with the company's economic reality. It is necessary to improve the quality of earnings so it can be used in the decision-making process and projecting company profits in the future. Then, suggestions are given to further study to increase the year of observation, increase the observation period in calculating the accumulation of abnormal returns, and add control variables in the study. This study has limitations. The limitation is this study only provides information on earnings quality for five years. In addition, the observation period in calculating abnormal returns is only seven days, namely three days before the financial statements publication, the day of the announcement, and three days after publication. This study also does not use companies that present financial statements in foreign currency as a sample.

REFERENCE


