Determinants of earnings quality: The role of managerial ownership

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Abstract
This research analyzes and determines the effect of investment opportunity set, earnings persistence, and capital structure on earnings quality by making managerial ownership a moderating variable. This research is classified as a type of quantitative research with panel data obtained from secondary financial report data that has been published through Indonesian Stock Exchange website. Furthermore, the research sample was filtered using purposive sampling technique with several predetermined criteria to obtain 30 manufacturing companies registered at ISSI for 2019-2021 that met the criteria with a 3-year observation span. So, the total sample used was 90. Data analysis in this study used Moderated Regression Analysis. After testing with the Eviews 9 tools, the results show that the IOS variable has a positive and significant effect on earnings quality, earnings persistence has a negative but significant effect, while earnings persistence has no effect on earnings quality. Managerial ownership can only moderate the IOS’ relationship to earnings quality, however earnings persistence and capital structure variables cannot be moderated by managerial ownership in influencing earnings quality.

Keywords: Capital Structure; Earnings Persistence; Earnings Quality; Investment Opportunity Set (IOS); Managerial Ownership.

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INTRODUCTION

The development of companies in Indonesia is currently experiencing a very rapid growth. One of the business sectors that is proliferating is manufacturing companies. This shows that the manufacturing sector has profitable prospects in both the present and the future. This makes the sector a prime target for investors, and they assume that rapidly growing companies will positively impact them (Setyawan, 2021). To find out the development of a company, one can observe it through the company's financial statements, which also describe the company's performance condition (Sanjaya, 2017).

A company's performance can be assessed through information sources contained in financial statements (Herawati, 2019). The information in the financial statements is essential for parties related to the company (Dira & Astika, 2014). One of the most essential elements in financial statements is information about the company's earnings. Company earnings reflects the company's performance in carrying out its operations, so the information related to that is used as an indicator in decision-making (Muthohharoh & Pertiwi, 2021). Therefore, companies are required to produce optimal earnings quality. The ratio used in measuring earnings is the earnings quality (Murniati et al., 2018).

Earnings quality describes the quality of a company's annual report, which is used to consider whether the earnings report is reliable or not (Siregar & Dani, 2019). The quality of reported earnings is helpful in predicting future earnings. It reflects the actual earnings of the company (Sugiarto & Deviesa, 2017). The earnings quality is an allure for potential investors because the higher the quality of earnings from the company, the more investors want to decide to invest in the company (Murniati et al., 2018). The investor's view of a company with a good earnings shows that the company has strong financial performance, leading to high expectations of obtaining a significant return on the investment made. This high quality of earnings also makes it more appropriate for investors to analyze when deciding on investments.

The phenomenon related to earnings quality has occurred in one of the manufacturing companies in Indonesia whose automotive sub-sector impacts declining company earnings growth. Figure 1 shows fluctuating earnings growth in one of the automotive sub-sector manufacturing companies for the 2017-2021 period. Net earnings in 2017 and 2018 amounted to 18.8 trillion IDR and 21.7 trillion IDR. The acquisition stagnated until the following year, namely 21.7 trillion IDR in 2019. Unfortunately, due to the pandemic outbreak, the company's earnings quality decreased to 16.2 trillion IDR, resulting from the necessity to adapt swiftly to
crisis conditions and the contraction of the global environment. The company managed to rise in the following year, which was 2021, by obtaining a earnings of 20,2 trillion IDR.

![Figure 1. Earnings Growth of an Automotive Sub-sector Manufacturing Companies for the 2017-2021 Period](source: www.idx.co.id)

One factor affecting the earnings quality is the Investment Opportunity Set (IOS). An entity with maximum IOS indicates proficiency in managing resources in the form of assets for return. OS can be interpreted as an investment decision made by a company involving the allocation of funds to generate future profits and boost overall company earnings. Previous research conducted by Mulyati et al. (2021) explained that IOS has a positive and significant effect on earnings quality.

In addition to utilizing the Investment Opportunity Set (IOS) to assess earnings quality, there is also a measure that can be used, namely earnings persistence. Earnings acquisition concerning earnings persistence, apart from describing and predicting the company's state in the future, earnings persistence can also be used to assess the company's financial performance. Higher earnings persistence indicates higher quality of earnings (Rizqi et al., 2020). Investor confidence will increase along with the increase in high earnings persistence (Supomo & Amanah, 2019). Studies conducted by Eliana et al. (2021) concludes that earnings persistence has a positive and significant influence on earnings quality.

Another factor influencing earnings quality is the capital structure. This structure indicates a company's ability to finance its operations using a combination of its own capital and loans (Abidin et al., 2022). The share of funds used to meet the company’s needs, derived
from long-term debt both within and outside the company, is called the capital structure (Sugiyanto et al., 2021). Managing capital aspects in the company must be done as efficiently as possible, so that the company can run its overall operations properly. Research conducted by Lusiani & Khafid (2022) proving that there is a significant and positive influence between capital structure on earnings quality.

The quality of a company's profits, whether excellent or impaired, is related to its management decisions. In this case, managerial ownership affects the quality of earnings as the managers with a stake in the form of share ownership will indirectly contribute to the company’s advancement by improving its performance to generate high-quality earnings (Dewi et al., 2020). Thus, managerial ownership can be used as a moderating factor influencing the effect of independent variables on dependent variables in this study. Based on the findings of previous research above, this study aims to determine the factors influencing earnings quality with managerial ownership as moderating variable in manufacturing companies registered in ISSI for the 2019-2021 period.

This research can provide practical contribution for the investors before making investment decisions in companies. Based on the research findings, investors can consider carefully and use them as benchmarks when considering their investment choices while also taking into account factors such as investment selection decisions, earnings persistence, capital structure, and managerial ownership since all of which can have an impact on the quality of company's earnings. Furthermore, manufacturing companies registered with ISSI can enhance their performance to ensure stable returns as well as consistently provide actual and accurate information and reports. This practice makes it easier for users of financial statements to analyze the data. In addition, the company can maximize their earningsability as an indicator of increasing the quality of company earnings.

**LITERATURE REVIEW**

*Agency Theory*

Jensen & Meckling (1976) state that the agency theory is a relationship based on a contract between the principal and the agent as the leading actors. This theory is closely related to the quality of earnings due to the contractual relationship between agents and principals who use earnings as material for evaluating company activities, and are accompanied by users who expect the earnings generated by the company to have reliable quality (Polimpung, 2020). Companies that make long-term investments are highly likely to experience agency conflicts.
These conflicts can hinder companies’ ability to maintain earnings persistence. Managerial ownership can align the interests of agents and principals because managers own shares in the company. Consequently, managers can improve their performance and exercise prudence in decision making (Putra et al., 2019).

**Signalling Theory**

Signal theory is the existence of information between management and interested parties through the information released (Jumaidi & Rijal, 2018). The use of debt in terms of capital structure sends signals to investors regarding the company's future earnings ability (Irawan & Kusuma, 2019). Concerning the signal theory, if the capital structure relies heavily on debt, investors can assess the company’s condition at that time and will decide whether to invest in the company or not (Irawan & Kusuma, 2019). Signal theory also suggests that the company will reasonably disclose information related to the company's condition, one of which is about the quality of company earnings or vice versa (Ashma’ & Rahmawati, 2019).

**Financial Performance**

The quality of a company can be assessed through its financial performance, which is reflected in the financial statements (Sanjaya, 2017). The importance of analyzing company performance in decision making for stakeholders, particularly investors who want to invest in the company through share ownership in the company (Rahmawardani & Muslichah, 2020). Company performance reflects the decisions made by company management in financing, investment, and operational activities (Marlina & Idayati, 2021). The company’s achievement is related to its financial performance, primarily in terms of obtaining maximum earnings and providing prosperity for shareholders.

**Investment Opportunity Set (IOS)**

Investment Opportunity Set (IOS) is an investment opportunity for the company to generate future earnings, thereby enabling the company to grow (Mulyati et al., 2021). These investment opportunities foster the company’s growth and result in future earnings. Companies possessing a high IOS will send positive signals to investors. A high IOS rate indicates promising development prospects, leading investors to perceive that the company can provide prosperity for shareholders.

**Earnings Persistence**

Earnings persistence is the capacity of earnings to sustain current earnings and forecast future earnings (Petra et al., 2020). Earnings persistence that increases stably without fluctuations reflects the company’s ability to maintain the earnings generated from all series
of operations every year (Tuffahati et al., 2020). The company's capability to sustain persistent earnings can attract potential investors to invest by purchasing shares in the company (Surgawati et al., 2019). Investors will assume that the level of earnings persistence reflects the company's ability to maintain earnings stability.

**Capital Structure**

Capital structure is essential for companies because it enables managers to identify the sources of funding within the company (Al-Vionita & Asyik, 2020). This funding is utilized to fund the company's overall operational activities. If the source of funding sourced from internal equity is insufficient to finance the company's operations, the company can seek alternative sources of funding from outside, particularly through debt (Tijow et al., 2018). Management must be selective in selecting efficient funding options, allowing the company to benefit by minimizing the cost of capital (Ariyanti et al. 2021).

**Earnings Quality**

Earnings quality represents the quality of earnings and can be used as an evaluation of both the company's current performance and predictions for subsequent performance (Murniati et al., 2018). Earnings is considered of high quality if it is presented on the balance sheet in the financial statements and is reported fairly without manipulation in its reporting (Nariman & Ekadjaja, 2018). Entities with earnings quality will present detailed and transparent financial statement information to facilitate their users. For a company, the earnings quality serves as a benchmark to assess the quality of its accounting information. The earnings quality is helpful for stakeholders because it is an important point that will be taken into consideration in decision making (Salma & Riska, 2020). The higher the level of earnings quality, the greater the investor interest in investing.

**Managerial Ownership**

In managerial ownership, managers play a dual role in the company, both as partial owners of company shares and as decision-makers (Putri & Irawati, 2019). The greater the share ownership by company managers, the less conflict that occurs (Dewi et al. 2020). Managerial ownership, with managers having a stake in share ownership, will automatically help the manager advance the company. When managerial ownership is high, managers can monitor intensively (Krisna, 2019).

**Investment Opportunity Set (IOS) and Earnings Quality**

A high investment opportunity set comes with high returns, but the risk to be borne is also high (Aningrum & Muslim, 2020). This indicates that the greater the company's
investment opportunities, the better it reflects the company, and as a result, the earnings information issued will be reported in a way that relatively indicates the quality of earnings (Dewi et al., 2020). This is supported by research conducted by Dewi et al. (2020), which affirms that the Investment Opportunity Set (IOS) positively and significantly affects earnings quality.

**H1: Investment Opportunity Set (IOS) has a positive and significant effect on earnings quality.**

**Earnings Persistence and Earnings Quality**

Greater earnings persistence corresponds to higher earnings quality because it indicates the more reliable earnings (Supomo & Amanah, 2019). The company strives to maintain persistent earnings because they serve as a basis for decision-making by its users, as well as for deciding to invest, standardization, and contract-making (Supomo & Amanah, 2019). This is supported by research conducted by Eliana et al. (2021) and Chandra (2020), both of which state that earnings persistence has a positive and significant effect on earnings quality.

**H2: Earnings persistence has a positive and significant effect on earnings quality.**

**Capital Structure and Earnings Quality**

Managers must work efficiently in managing capital to run the company in order to generate earnings for the company (Wahyudianti et al., 2021). When a company obtains capital through debt, it suggests that the more debt they have, the more agile and adaptable they may become (Arisonda, 2018). Research supports this statement, as evidenced by studies conducted by Lusiani & Khafid (2022), which state that capital structure has a positive and significant effect on earnings quality.

**H3: Capital structure has a positive and significant effect on earnings quality.**

**Managerial Ownership in Moderating the Relationship between Investment Opportunity Set (IOS) and Earnings Quality**

Investment opportunities can lead to increased earnings for a company in the future. This suggests that the company has access to valuable information regarding these opportunities (Ashma’ & Rahmawati, 2019). Furthermore, the quality of earnings can be impacted by the level of managerial ownership. When managers have a significant stake in a company, they are motivated to enhance their performance (Muid, 2009). Based on agency theory, when managers have ownership, their interests can align with the investors. As a result,
managerial ownership can moderate the relationship between the investment opportunity set and earnings quality. This is supported by research conducted by Zubaidah & Nasrizal (2019), which explains that moderating effect of managerial ownership.

H4: Managerial ownership moderates the relationship between Investment Opportunity Set (IOS) and earnings quality.

Managerial Ownership in Moderating the Relationship between Earnings Persistence and Earnings Quality

High persistence of earnings indicates a reliable and informative level about the company's earnings (Marlina & Idayati, 2021). Management ownership plays a significant role in shaping the company's policies related to earnings management. They demonstrate a sense of responsibility by including relevant information in the annual report (Siregar & Dani, 2019). With managerial ownership, managers and investors can have an equal position and minimize the need for managers to carry out certain actions (Dewi & Abundanti, 2019). This study explores how managerial ownership can affect the relationship between earnings persistence and earnings quality.

H5: Managerial ownership moderates the relationship between earnings persistence to earnings quality.

Managerial Ownership in Moderating the Relationship between Capital Structure and Earnings Quality

The capital structure refers to the combination of debt and capital that finances a company's operations. It is important for managers to effectively manage capital to avoid exceeding the debt limit (Ariyanti et al., 2021). Managers play a more supervisory role due to their part of the share ownership in the company (Polimpung, 2020). When managers hold a significant ownership stake in a company, it can lead to the highest possible earnings. Additionally, this ownership can help balance the connection between a company's financial structure and the quality of its earnings. This is supported by research conducted by Lusiani & Khafid (2022), which explains that managerial ownership can moderate the influence of capital structure on earnings quality.

H6: Managerial ownership moderates the relationship between capital structure and earnings quality.
METHODS

Research Design

This research is a type of quantitative research, while the type of data used in this study is in the form of secondary data. The data source is www.idx.co.id, and the data used is the company's financial statements. The samples in this study is a manufacturing company listed on the Indonesian Sharia Stock Index for the 2019-2021 period. This study used a non-participant observation method, conducting research without going to the field. In regression analysis, the test panel data carried out are descriptive statistics, model tests, and statistical tests, which include F-tests, t-tests, coefficient of determination tests, and moderate regression analysis (MRA) tests. Figure 1 shows the conceptual framework of the study. Based on Figure 1, the equation model in this study is as follows.

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_1 X_1 Z + \beta_2 X_2 Z + \beta_3 X_3 Z + \varepsilon \]  

Equation (1) is a regression model aiming to understand the factors affecting earnings quality (Y). In this equation, Y is the dependent variable representing earnings quality, A is the constant term, \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 \) are regression coefficients, and \( X_1, X_2, X_3, Z \) are independent variables. \( X_1 \) is Investment Opportunity Set (IOS), \( X_2 \) is earnings persistence, \( X_3 \) is capital structure, and \( Z \) is managerial ownership. \( \varepsilon \) represents the error term.
Sampling Technique

The population in this study includes all manufacturing companies listed on the Indonesian Sharia Stock Index for the 2019-2021 period. This study employed purposive sampling techniques, with the following criteria. First, companies that release financial statements in rupiah. Second, companies that have successively had managerial ownership during the period 2019-2021. Third, companies that consecutively earned net earnings after tax for the 2019-2021 period. The sample obtained in the study consisted of 30 companies that had met the research criteria, with a total sample of 90 over three years.

Operationalization and Measurement of Variables

In the next section is the elaboration of each variable used in the research model. Detailed information on the operationalization of research variables can be seen in Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>Concept Definition</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Investment Opportunity Set (IOS) (X1)</td>
<td>IOS is calculated by comparing stock price with earnings per share.</td>
<td>Price Earning Quality = ( \frac{\text{Stock Price}}{\text{Earnings per Share}} )</td>
</tr>
<tr>
<td>2.</td>
<td>Earnings persistence (X2)</td>
<td>Earnings persistence is proxied by an inter-regression coefficient, namely the earnings value before tax to be compared with total assets.</td>
<td>Earnings Persistence = ( \frac{\text{Earnings Before Tax}}{\text{Average Total Assets}} )</td>
</tr>
<tr>
<td>3.</td>
<td>Capital structure (X3)</td>
<td>Capital structure is the ratio of total debt to total capital.</td>
<td>Debt to Equity Ratio = ( \frac{\text{Total Liability}}{\text{Total Equity}} )</td>
</tr>
<tr>
<td>4.</td>
<td>Earnings quality (Y)</td>
<td>Earnings quality compares cash flow from operating activities with earnings before expenses and taxes.</td>
<td>Earnings Quality (EQ) = ( \frac{\text{Cash Flow from Operating Activity}}{\text{Earnings Before Interest and Taxes}} )</td>
</tr>
<tr>
<td>5.</td>
<td>Managerial ownership (Z)</td>
<td>Managerial ownership compares the total shares owned by the manager and the total shares outstanding.</td>
<td>Managerial Ownership = ( \frac{\text{Shares Owned by Manager}}{\text{Outstanding Shares}} \times 100% )</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

Descriptive Statistics

Referring to Table 2 of the descriptive statistics, earnings quality obtained a mean of 1.920648, a median of 1.195412 with a maximum value of 14.73175 and a minimum of
0.014320, while the standard deviation gain was 2.184461. The variable Investment Opportunity Set (IOS) has an average value of 33,84333, a median value of 19,78678, a high of 739,3274, a low of 4,628806, and a standard deviation of 79,70966.

Table 2. Descriptive Analysis Tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Y</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1,920648</td>
<td>33,84333</td>
<td>0,103312</td>
<td>0,673544</td>
<td>0,114049</td>
</tr>
<tr>
<td>Median</td>
<td>1,195412</td>
<td>19,78678</td>
<td>0,083687</td>
<td>0,554474</td>
<td>0,059037</td>
</tr>
<tr>
<td>Maximum</td>
<td>14,73175</td>
<td>739,3274</td>
<td>0,562320</td>
<td>2,023924</td>
<td>0,894444</td>
</tr>
<tr>
<td>Minimum</td>
<td>0,014320</td>
<td>4,628806</td>
<td>0,002875</td>
<td>0,069562</td>
<td>0,000157</td>
</tr>
<tr>
<td>Std. Dev</td>
<td>2,184461</td>
<td>79,70966</td>
<td>0,093299</td>
<td>0,476112</td>
<td>0,176909</td>
</tr>
<tr>
<td>Observations</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: Processed data, 2023

Variable earnings persistence with the result of an average value of 0.103312, a median value of 0.083687, a maximum value of 0.562320, and a minimum value of 0.002875 with a standard deviation of 0.093299. The capital structure variable obtained a result of 0.673544 for the mean, with a median value of 0.554474 while the maximum, minimum, and standard deviation values of 2.023924; 0.069562; and 0.476112, respectively. In the managerial ownership variable as a moderating variable, the average, middle, maximum, minimum, and standard deviation values, respectively, are 0.114049; 0.059037; 0.894444; 0.000157; and 0.176909.

Model Analysis

The Chow test determines the best model between CEM and FEM. The decision determination in the Chow test is based on the cross-section value of chi-square. If the value is greater than 0.05, then the common effect is chosen. However, if the cross-section value of chi-square is less than 0.05, FEM is selected (Kusumaningtyas et al., 2022). Referring to Table 3, the probability value of chi-square cross-section is 0.0239, which is less than 0.05. Hence, the regression model chosen is FEM.

Table 3. Chow Test Results

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>1,285297</td>
<td>(29,56)</td>
<td>0,2076</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>45,916699</td>
<td>29</td>
<td>0,0239</td>
</tr>
</tbody>
</table>

Source: Processed data, 2023

Hausman Test

The Hausman test determines the best model between FEM and REM. The decision in the Hausman test is based on the random cross-section value. If the value is greater than 0.05, then the selected model is a random effect. However, if the random cross-section value is less than 0.05, the model selected in the test is FEM (Kusumaningtyas et al., 2022). Referring
to Table 4, the probability value of random cross-section is 0.0297, which is less than 0.05. Hence, the fixed effect model is selected.

**Table 4. Hausman Test Results**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>10,737535</td>
<td>4</td>
<td>0.0297</td>
</tr>
</tbody>
</table>

**Source:** Processed data, 2023

**Regression Analysis**

Based on the results of the model selection estimation test, it can be seen that the right model used to represent in this study is the fixed effect model. The regression model in this study is as follows.

**Table 5. Panel Data Regression**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4.695722</td>
<td>2.601174</td>
<td>1.805232</td>
<td>0.0767</td>
</tr>
<tr>
<td>X1</td>
<td>0.008072</td>
<td>0.003469</td>
<td>2.26743</td>
<td>0.0238</td>
</tr>
<tr>
<td>X2</td>
<td>-13.58449</td>
<td>7.437537</td>
<td>-1.82477</td>
<td>0.0734</td>
</tr>
<tr>
<td>X3</td>
<td>-2.663841</td>
<td>2.173686</td>
<td>-1.225495</td>
<td>0.2258</td>
</tr>
<tr>
<td>Z</td>
<td>-3.563505</td>
<td>21.01961</td>
<td>-0.169532</td>
<td>0.8660</td>
</tr>
<tr>
<td>X1_Z</td>
<td>0.093261</td>
<td>0.049898</td>
<td>1.869028</td>
<td>0.0671</td>
</tr>
<tr>
<td>X2_Z</td>
<td>-5.492174</td>
<td>53.57315</td>
<td>-0.102517</td>
<td>0.9187</td>
</tr>
<tr>
<td>X3_Z</td>
<td>4.118094</td>
<td>10.91451</td>
<td>0.377305</td>
<td>0.7075</td>
</tr>
</tbody>
</table>

**Source:** Processed data, 2023

Based on the analysis that has been done, the value of the coefficient of determination on the Adjusted R-square is 0.34658 or 34.6%. The independent variables used in the study, namely investment opportunity set, earnings persistence, and capital structure, can affect the earnings quality variable by 34.6%. In comparison, the remaining 65.4% is influenced by other variables not contained in the research model.

**Table 6. Regression Test Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.821971</td>
<td>1.956070</td>
<td>1.442674</td>
<td>0.1547</td>
</tr>
<tr>
<td>X1</td>
<td>0.010950</td>
<td>0.003155</td>
<td>3.470180</td>
<td>0.0010</td>
</tr>
<tr>
<td>X2</td>
<td>-14.51436</td>
<td>6.099620</td>
<td>-2.379552</td>
<td>0.0208</td>
</tr>
<tr>
<td>X3</td>
<td>-3.045052</td>
<td>1.836865</td>
<td>-1.657744</td>
<td>0.1030</td>
</tr>
<tr>
<td>Z</td>
<td>19.97892</td>
<td>12.56400</td>
<td>1.590172</td>
<td>0.1174</td>
</tr>
</tbody>
</table>

**Effects Specification**

<table>
<thead>
<tr>
<th>Cross-section fixed (dummy variables)</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.588862</td>
<td>Mean dependent var</td>
<td>1.920648</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.346584</td>
<td>S.D. dependent var</td>
<td>2.184461</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>1.765791</td>
<td>Akaike info criterion</td>
<td>4.256172</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>174.6090</td>
<td>Schwarz criterion</td>
<td>5.200544</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-157.5277</td>
<td>Hannan-Quinn criter.</td>
<td>4.636998</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>2.430520</td>
<td>Durbin-Watson stat</td>
<td>2.117181</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.001659</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Processed data, 2023
The F-test aims to prove the feasibility of the model used to assess the fit of the regression model concerning the influence of the independent variable on the dependent variable (Bawono & Shina, 2018). If the F-value is greater than 0,05, all independent variables simultaneously affect the dependent variable. The F-statistic probability value of 0,001659, which is less than 0,05, refers to the test results. Thus, simultaneously the independent variable significantly affects the dependent variable. The t-test is performed to examine the effect of each independent variable on the dependent. If the t-value is less than 0,05, there is a significant influence between the independent variable and the dependent variable (Bawono & Shina, 2018).

**MRA Analysis**

Moderate Regression Analysis (MRA) model, also called the interaction test, is part of the multiple linear regression analysis model, which contains interactions between independent variables (Liana, 2009). This study used MRA testing to examine the moderating effect of managerial ownership variables on the influence of independent variables on dependents.

The interaction between the investment opportunity set and managerial ownership obtained a probability of 0,0013, which is less than the significance level of 0,05. Hence, managerial ownership is able to moderate the effect of investment opportunity set on earnings quality, strengthening the relationships. The interaction between earnings persistence and managerial ownership obtained a probability of 0,2903, or greater than the significance value of 0,05. This means that managerial ownership is unable to moderate the effect of earnings persistence relationship on earnings quality. The interaction between capital structure and managerial ownership obtained a probability of 0,9374, or greater than a significance level of 0,05. It can be interpreted that managerial ownership is not able to moderate the effect of capital structure relationships on the earnings quality.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1,982181</td>
<td>0,727046</td>
<td>2,726349</td>
<td>0,0085</td>
</tr>
<tr>
<td>X1_Z</td>
<td>0,114762</td>
<td>0,033954</td>
<td>3,379960</td>
<td>0,0013</td>
</tr>
<tr>
<td>X2_Z</td>
<td>-47,88933</td>
<td>44,86491</td>
<td>-1,067412</td>
<td>0,2903</td>
</tr>
<tr>
<td>X3_Z</td>
<td>0,555689</td>
<td>7,043158</td>
<td>0,078898</td>
<td>0,9374</td>
</tr>
</tbody>
</table>

**Effect of Investment Opportunity Set on Earnings Quality**

Based on the results of the analysis, the investment opportunity set variable obtained probability results of 0,0010, which is less than 0,05 with a positive direction, so the first
hypothesis formulated is accepted. The investment opportunity set can have a positive and significant influence. When the investment opportunity set increases, it will improve the earnings quality and vice versa. The increase in the investment opportunity set itself is caused by investment activities carried out by the company, so it has a positive impact in the future and reflects the company’s stock price.

This increase in IOS information provides a positive signal for the quality of the company's earnings because the earnings issued by the company will be reported by management fairly, making it useful for investors (Indriana & Handayani, 2021). Investors will be interested because they assume the company has good conditions and performance. After all, it has the right policies related to investment. These findings confirm the results found by Mulyati et al. (2021), which states that IOS has a significant positive influence on earnings quality. However, this finding differs from Narita & Taqwa's (2020), where earnings quality is not affected by IOS.

**Effect of Earnings Persistence on Earnings Quality**

Testing with the Eviews tool, probability results obtained for the variable persistence of earnings is 0.0208, which is less than 0.05 with a negative direction, hence the second hypothesis was rejected. That is, the earnings persistence significantly and negatively affects earnings quality. Earnings persistence is one of the benchmarks for a company to experience progress or setbacks in the next year's earnings (Tjahjadi & Nurdiniah, 2022). Earnings persistence in an entity indicates that the company can maintain financial stability, thereby increasing investor interest in investing.

The negative relationship between earnings persistence and earnings quality exists because the company's earnings generation is only sometimes persistent every year. Therefore, the company will maximize and maintain earnings from year to year (Ramadhani et al., 2022). The results of this research are align with Marlina & Idayati (2021) findings, demonstrating that earnings persistence is negatively and significantly affected by earnings quality.

**Effect of Capital Structure on Earnings Quality**

The capital structure variable with a probability value of 0.1030, which is greater than 0.05 and has a negative direction, indicates that the third hypothesis formulated is rejected. The capital structure does not affect the quality of earnings. An enterprise’s source of financing consists of a combination of liabilities and equity (Priskanodi et al., 2022). The company's capital structure derived from debt indicates the company's high dependence on loans. The
large dependence of the company on debt causes the low quality of the company's earnings, and the company's prospects may improve in the future.

The high level of debt in the capital structure diminishes the role of investors because they assume that the company cannot fully leverage its available funds for operational activities (Amanda & NR, 2023). This is in line with the research by Irawan & Ardianti (2021), which states that the capital structure has no effect on the earnings quality. However, it is contrary to the results by Lusiani & Khafid (2022), which explains the positive and significant influence of capital structure on earnings quality.

**Effect of Managerial Ownership in Moderating the Relationship between Investment Opportunity Set and Earnings Quality**

The role of managerial ownership in moderating the relationship between investment opportunity set and earnings quality obtained a probability of 0.0013, which is less than 0.05 with a coefficient of 0.114762. Thus, managerial ownership serves as a moderator, strengthening the relationship between investment opportunity set and earnings quality, so the hypothesis in this study is accepted. Investment decisions made by the company will affect the progress of the company in the future, including a positive response from investors to the success of investments made by the company (Widmasari et al., 2019).

Managerial ownership will increase company growth because it motivates managers to maximize their performance (Yunita & Suprasto, 2018). Companies with managerial ownership can influence policies to achieve their expected goals effectively. Thus, managerial ownership can strengthen the influence of the relationship between IOS and earnings quality. The results of this research support the study conducted by Zubaidah & Nasrizal (2019), which demonstrates that managerial ownership affects the relationship between investment opportunity set and earnings quality.

**Effect of Managerial Ownership in Moderating the Relationship between Earnings Persistence and Earnings Quality**

The interaction of earnings persistence on the quality of moderated earnings managerial ownership obtained a probability value of 0.2903, which is greater than 0.05, and a coefficient of -47.88933. This means managerial ownership cannot moderate the relationship between earnings persistence and earnings quality, hence the fifth hypothesis is rejected. Companies strive to maintain their earnings from year to year because earnings serves as a basis for decision-making, one of which is investment based on the aspect of earnings
Companies with fluctuating earnings suggest an inability to maintain consistent profits, reflecting low earnings quality.

The contribution of partial ownership of shares by lower-level managers results in responsibility and a lack of motivation to improve the company’s underperformance (Pratomo & Nuralia, 2021). Although a company has managerial ownership with partial ownership of shares held by management, managers cannot thoroughly monitor the improvement of the company’s earnings quality and maintain earnings persistent. Frequently, ownership of shares by lower-level management leads to a misalignment of goals between managers and investors, increasing the likelihood of earnings manipulation (Nurochman & Solikhah, 2015). This action can result in lower-quality earnings because the available earnings is not reported fairly, making the earnings information issued cannot be used as a basis for decision-making. Meidiyustiani & Oktaviani (2021) concluded that earnings persistence has no effect on managerial ownership.

**Effect of Managerial Ownership in Moderating the Relationship between Capital Structure and Earnings Quality**

The last test was conducted to see the moderating effect of managerial ownership variables on the relationship between capital structure and earnings quality. Based on the analysis, the probability gain is 0.9374, which is greater than 0.05, with a coefficient of 0.555689. Therefore, that capital structure does not act as a moderating effect in the relationship of capital structure to earnings quality, and the sixth hypothesis in this study is rejected. Capital management in an entity, especially with its own capital, must be carried out optimally to avoid incurring debt, which results in debt (Musyarofah & Arifin, 2019). Effective management must undoubtedly be able to pay its obligations, so the risk of default can be resolved (Zatira et al., 2020).

The results of this research are contrary to study conducted by Lusiani & Khafid (2022), which suggests that managerial ownership can affect the relationship between capital structure and earnings quality. The role of managerial ownership has not yet been fully able to control and manage capital aspects, resulting in high liabilities used to finance company operations. Capital management derived from suboptimal debt can increase the risk of default, causing companies incur more costs to overcome this, which impacts decreasing company earnings.
CONCLUSION

Several conclusions were drawn from the study. First, the investment opportunity set can positively and significantly influence the earnings quality. Second, the variable of earnings persistence has a negative and significant effect on earnings quality. Third, capital structure variables do not appear to affect quality. Fourth, managerial ownership variables can moderate the relationship between the investment opportunity set and earnings quality. However, managerial ownership is unable to moderate the relationship between earnings persistence and capital structure in relation to earnings quality.

This research has limitations that can influence both the process and results. This research only uses 30 manufacturing sector entities listed on ISSI. Therefore, the company's research results are not fully able to represent manufacturing industry. The limited reference sources regarding the moderating variable of managerial ownership on earnings persistence caused no previous research findings to confirm the research results. The observation time span used in this study is limited to just three years, which cannot describe the fluctuating condition of the company as a whole.

Based on the results of research conducted, there are several suggestions given. The company can maximize its performance to maintain stable returns. Additionally, the company should always provide actual and accurate information and reports, facilitating easier analysis for financial statement users and enabling investors to use it as a benchmark in considering their investment decisions. Further research should be able to adopt several other variables that can be used as indicators to assess the quality of company earnings, such as institutional ownership, company size, and audit quality, as well as expand the research sample and increase the research period.

REFERENCES


