Financial Reporting and Audit Quality Impact on Investment Efficiency in Indonesian Transport and Logistics Companies

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ABSTRACT: The purpose of this research is to determine the impact of financial statement quality and audit quality on companies in the transportation and logistics sector listed on the Indonesia Stock Exchange during the period 2018 to 2022, especially in the transportation and logistics sector. Based on the issues of investment inefficiency in the company, research is conducted to provide managers with insights to consider investment decisions based on several variables influencing investment efficiency. The purpose of this research is to determine the impact of financial reporting quality and audit quality on investment efficiency on companies in the transportation and logistics sector listed on the Indonesia Stock Exchange during the period 2018 to 2022. By applying the purposive sampling method as a sampling technique, the data used in this research is 24 companies. The total data used in this research included 120 observations based on certain criteria. The analysis method applied is multiple linear regression analysis. And the results show that the quality of financial reporting and audit quality have a positive and significant influence on the company’s investment efficiency decisions.

Keywords: Investment Efficiency, Financial Reporting Quality, Audit Quality

INTRODUCTION

One of the objectives of establishing the company is to increase the wealth of owners through the achievement of high profits and equity as well as optimal share prices. In order for company goals to be achieved, the company must be managed by professional management. The professional management will make various policies that can make the company achieve company goals. According to (Horne & Wachowicz, 2001; Silaban & Dewi, 2023; Wang & Zhang, 2022) there are three main company policies that must be decided by management, namely investment policy, financing policy and asset management policy. (Horne & Wachowicz, 2001) states investment policy is the most important thing to create company value, starting with the determination of the total assets required by the company.

(Li et al., 2023; Verawaty & Anggraini, 2022) An investment can be categorized as efficient if the use of assets or company investment is carried out correctly and appropriately to avoid excessive use of resources by reducing company costs incurred and managing the company optimally, to
achieve profitable company goals. In order for investment decisions to be efficient, companies must avoid overinvestment problems and underinvestment problems. Based (Perdana, 2019a) found that under or over-investment conditions are indicators of investment inefficiencies by companies.

The occurrence of overinvestment conditions, if the company invests excessively or in other words exceeds the predetermined target, while underinvestment occurs when the company knows that a project is profitable but chooses not to carry it out (Andika, 2019). Based on the conducted research (Perdana, 2019b), the obtained results are described in the following table:

<table>
<thead>
<tr>
<th>Company Sector</th>
<th>Years</th>
<th>Results</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure, Utilities, and Transport</td>
<td>2014-2018</td>
<td>64%</td>
<td>Underinvestment</td>
</tr>
<tr>
<td>Infrastructure, Utilities, and Transport</td>
<td>2014-2018</td>
<td>31%</td>
<td>Overinvestment</td>
</tr>
</tbody>
</table>

The table indicates the ongoing presence of investment inefficiency problems (underinvestment and overinvestment) in companies, specifically within the transportation sector. Hence, there is a need for this study to further investigate the factors that impact management's investment decisions.

The condition of under and overinvestment is very dependent on the quality of information used in deciding on investment. One of the bases for making investment decisions comes from financial statement information, which is available in financial reporting. When the information used turns out to have weaknesses, the decisions made will not be appropriate, it can have an impact on inefficient investment decision making. (Bzeouich et al., 2019) found a positive influence between the quality of financial reporting on investment efficiency. (Firmansyah et al., 2022) found that the quality of financial reporting negatively affects investment efficiency. Meanwhile (Biddle, 2009a) states that the quality of financial reporting has a negative impact on one condition of less or more an investment. And (Houcine, 2017) found a negative relationship between the quality of financial reporting to underinvestment but did not affect overinvestment.

Investment efficiency also depends on the quality of the audit, a quality audit can ensure that important and relevant information has been disclosed in the financial reporting. This can help companies make efficient investment decisions based on the information available in the financial reporting. According to (Boubaker et al., 2018) and (Shahzad et al., 2019) audit quality is positively related to investment efficiency. However, research from (Andriani et al., 2020) found that audit quality has no effect on financial reporting. And (Siregar & Nuryanah, 2019) found that audit quality has no effect on investment efficiency.

Based on the discussion above, indications were found that the quality of financial reporting and audit quality affect investment efficiency decisions, but the results of the research are still inconclusive. Based on the results that cannot be concluded above, this research will be conducted again to determine the relationship between the quality of financial reporting and audit quality on investment efficiency.
Agency theory proposed by (Jensen & Meckling, 1976) known as agency theory, is a theoretical foundation in the field of economics and management that focuses on the research of the relationship between owners (principals) and agents (management or executives) in companies. This theory addresses the agency conflict that arises between the owner and the agent.

The presence of agency conflicts leads to inequality of information received by owners and managers (information asymmetry). Information asymmetry causes an inequality of information received by managers and shareholders, this can have an impact on investment decision making, can make investment decisions inefficient and make company goals unattainable (Sari & Suaryana, 2014).

Investment Efficiency

Investment efficiency is an investment activity where the investment made is in accordance with the company's expectations. An investment can be said to be efficient if the level of investment expected by the company does not experience a deviation. In the sense that the investment made by the company is neither over investment nor under investment (Andika, 2019). Investment efficiency refers to the ability of a company or project to optimally allocate resources and capital so as to achieve the desired results. The process of investment efficiency involves the selection of suitable projects, efficient utilization of resources, and adequate assessment of investment returns. (Biddle, 2009a) found that investment is derived from the total investment of the fixed assets of the company minus the total sales of fixed assets (machinery, equipment, vehicles, land and buildings) and divided by the total assets. (Firawan & Dewayanto, 2021a) measuring investment efficiency based on a measurement model, namely the total investment from the company in that year, can be calculated from the increase in tangible assets with intangible assets divided by lagged total assets. The dependent variable of this research is the residual value multiplied by -1, so if you get a high value it means that the investment efficiency is higher.

Financial Reporting Quality

A corporation or other entity may provide information to consumers of financial reporting as a foundation for decision-making through the use of financial reporting (Indella & Husaini, 2021). The accuracy of the data included in the financial reporting is one aspect of their quality. Reputable and pertinent financial accounts provide all important information regarding the company's operations (Sari & Suaryana, 2014a). Making wise and effective investing decisions is based on having accurate information. In addition to agency problems like moral hazards or adverse selection, misjudgment in financial planning or judgment can also result in inefficient investment decisions (Cherkasova & Rasadi, 2017).

(Firawan & Dewayanto, 2021a) measuring the quality of financial reporting (FRQ) measured by a discretionary accrual model. Where total accruals (changes in non-current assets minus changes in current debt) are derived from the total change in income in year t plus PPE (seen in fixed assets) plus changes in cash flows from current year's operations with the previous year. (Suranta et al., 2023) measure the quality of financial reporting with accrual total profit management proxies. The total value of the company's assets in the prior period, changes in the company's sales amount in year t, the total net value of the fixed assets the company owns in year t, and performance metrics derived from the rate of return on assets are added up to determine the quality of financial reporting (Sari & Suaryana, 2014a).
Audit Quality

Audit quality refers to the excellence of an auditor in carrying out his duties. Audit quality is defined as an independent assessment of the effectiveness of an organization's quality system (Sevtiandary & Aziza, 2021). Audit quality includes various things where it is ensured that the audit is carried out independently and professionally. Auditors are needed to assess the quality of the company's financial reporting that will be used as a reference for efficient investment decision making. Quality external audit (Big-4) is also an important supervisory mechanism in the timeliness of financial reporting (Ilyas, 2019).

(Firawan & Dewayanto, 2021; Shahzad et al., 2019; Wisesa & Saiful, 2021) measure audit quality using dummy variables with a measurement model is if the code "1" then the financial reporting are audited by Big 4, and code "0" then the financial reporting are not audited by Big 4.

In a prior research (Shahzad et al., 2019), the impact of financial reporting quality and audit quality on investment efficiency was investigated in 190 publicly traded companies listed on the Pakistan Stock Exchange. The findings revealed a positive correlation between the quality of financial reporting and audit quality with investment efficiency. Another research effort by (Cutillas Gomariz & Sánchez Ballesta, 2014) focused on companies registered in Spain from 1998 to 2008, analyzing the influence of financial reporting quality and debt maturity on investment efficiency. The results suggested that improved financial reporting quality contributes to mitigating the issue of overinvestment. Meanwhile, (Siregar & Nuryanah, 2019) explored the relationship between financial reporting quality, audit quality, and investment efficiency in 435 listed companies in France. Their findings indicated a positive association between the quality of financial reporting and investment efficiency, while audit quality did not demonstrate a significant impact on investment efficiency.

In a research conducted by (Firmansyah et al., 2022), the correlation between the quality of financial reporting and investment efficiency was investigated in 129 companies within the consumer goods sector that are listed on the Indonesia Stock Exchange. The findings indicated a negative relationship between the quality of financial reporting and investment efficiency. (Biddle, 2009a) explored the connection between the quality of financial reporting and investment efficiency across 34,791 companies. The research results revealed a negative association between the quality of financial reporting and the occurrence of underinvestment or overinvestment. Additionally, (Houcine, 2017) examined the relationship between the quality of financial reporting and investment efficiency in 25 companies registered in Tunisia. The results showed a negative correlation between the quality of financial reporting and underinvestment, but there was no impact on overinvestment.

The impact of audit quality on investment efficiency was examined by (Boubaker et al., 2018) in 125 French registered companies. The results showed that investment efficiency and audit quality were positively correlated. A research was carried out in 2019 by (Riska Pertamalia, 2019) to evaluate the effects of the audit committee and audit quality on the financial reporting of eleven companies that had the codes ASII, CPIN, ICBP, INDF, INT, JPFA, KLBF, SMGR, UNVR, WSBP, and WSKT. The findings showed that the audit committee and audit quality had a favorable impact on the financial reporting. The effect of the audit committee and audit quality on the financial reporting of ninety-three trading companies listed on Bursa Malaysia was investigated.
Hypotheses

Financial reporting quality and Investment Efficiency

Based on agency theory where it is stated that agency conflicts arise due to information asymmetry problems between owners and agents. This is also in line with the problem of investment inefficiency that arises both under and overinvestment conditions due to information asymmetry problems between management (agents) and owners (principals). The problem of information asymmetry related to under and over investment can be reduced by the quality of good financial reporting, where the quality of these financial reporting will be the basis for management to make an efficient investment decision. (Sari & Suaryana, 2014a; Shahzad et al., 2019) found that the quality of financial reporting can increase investment efficiency. Thus, the first hypothesis is formulated as follows:

H1: High quality of financial reporting in companies can have a positive effect on investment efficiency.

The Effect of Audit Quality on Investment Efficiency

Based on agency theory which states that there is a two-party relationship between the first party, namely the owner and the second party, namely the agent (management). The existence of information asymmetry between the owner and management results in the owner assessing management as knowing more information which results in opportunistic behavior of managers. conditions where managers have more information than owners and investors, leading to increased information asymmetry and agency problems, resulting in problems with low efficiency of resource allocation in the market (Alsmady, 2023). For this reason, it is necessary to have a mechanism that can control the opportunistic behavior of managers and also help management to be able to make an investment efficiency decision based on quality financial reporting. Good audit quality will improve the quality of a financial statement and will have an impact on efficient decision making. (Boubaker et al., 2018; Shahzad et al., 2019) found that audit quality can improve efficient investment decisions. Thus, the second hypothesis is formulated as follows:

H2: High audit quality can improve investment efficiency decisions in a company

METHOD

Population and Sample

The population for this research encompasses all transportation and logistics companies that are publicly listed on the Indonesia Stock Exchange. The research sample consists of 24 transportation and logistics companies that were listed on the Indonesia Stock Exchange during the period from 2018 to 2022. The sample selection was conducted using the purposive sampling method, adhering to specific criteria aligned with the research objectives. The selected criteria include:

The population for this research encompasses all transportation and logistics companies that are publicly listed on the Indonesia Stock Exchange during the period from 2018 to 2022. The research sample consists of 24 companies that met the criteria, selected during the 5-year observation
period, resulting in a total of 120 observations. The sample selection was conducted using the purposive sampling method, adhering to specific criteria aligned with the research objectives. The selected criteria include:

2. Observation period for financial reporting of transportation and logistics sector companies that have been reported and audited by independent parties for the 2018-2022 period.
3. Observation period for financial reporting of transportation and logistics sector companies that have complete information about dependent and independent variables in accordance with research criteria.

Variable and Measurement

Dependent Variable

The dependent variable in this research is Investment efficiency. In this research, investment efficiency is measured using the measurement model employed by (Biddle, 2009b) and (Sari & Suaryana, 2014b). The following is the measurement:

\[ \text{Investment}_{i,t} = a_{i,t} + \beta_1 S_{i,t-1} + \epsilon_{i,t} \]

Description:

- \( \text{Investment}_{i,t} \): Total investment of the company (i) in year (t), calculated as the increase in tangible assets by intangible assets divided by lagged total assets.
- \( S_{i,t} \): Change in sales level in company i in the current year with the previous year.

The dependent variable of this research is the residual value multiplied by -1, so if you get a high value, it means that the investment efficiency is higher.

Independent Variables

Quality of Financial Reporting

In this research, the quality of financial reporting is calculated using the measurement model employed by (Firawan & Dewayanto, 2021b), and the following is the measurement model:

\[ TA_{i,t} = \beta_0 + \beta_1 \Delta \text{Sales}_{i,t} + \beta_2 \text{PPE}_{i,t-1} + \beta_3 \Delta \text{CFO}_{i,t} + \epsilon_{i,t} \]

Description:

- \( TA_{i,t} \): Net profit – CF
- \( \Delta \text{Sales} \): Changes in revenue in the year
- \( \text{PPE} \): Property, plant, and equipment that can be seen in fixed assets

Financial Reporting Quality

The quality of financial reporting in this research utilizes the measurement employed by (Firawan & Dewayanto, 2021b), and the following is the measurement model:

\[ TA_{i,t} = \beta_0 + \beta_1 \Delta \text{Sales}_{i,t} + \beta_2 \text{PPE}_{i,t-1} + \beta_3 \Delta \text{CFO}_{i,t} + \epsilon_{i,t} \]

Description:

- \( TA_{i,t} \): Net profit – CF
- \( \Delta \text{Sales} \): Changes in revenue in the year
- \( \text{PPE} \): Property, plant, and equipment that can be seen in fixed assets
ΔCFO = Change in cash flows from operations in the current year with the previous year

Audit Quality

Variability Audit quality is measured using dummy variables with the measurement model is if the code "1" then the financial reporting are audited by Big 4, and if code "0" then the financial reporting are not audited by Big 4.

Control variables

In this research refer to the previous literature to examine the relationship between the quality of financial reporting and investment efficiency, namely using company size (CS) measured by natural logarithms (ln) of total assets; Leverage (LEV) is measured by the ratio of total debt to total assets.

Analysis model

The analysis model used in this research is a multiple linear regression model because the independent variables used are more than one. The regression model in this research is as follows:

\[ Y = \alpha + \beta_2 FRQi,t + \beta_3 AQi,t + \beta_4 CSi,t + \beta_5 LEVi,t + \epsilon \]

Remarks :

Y = Investment Efficiency
FRQi, t = Quality of financial reporting
AQi, t = Quality Audit
CSi, t = Company Size
LEVi, t = Leverage Research

RESULT AND DISCUSSION

Based on the purposive sampling method conducted, 24 transportation and logistics companies were found as samples in this research with the following description:

<table>
<thead>
<tr>
<th>Sample Criteria</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies in the transportation and logistics sector listed on the Indonesia Stock Exchange 2018-2022 observation period</td>
<td>36</td>
</tr>
<tr>
<td>Manufacturing companies that did not meet the criteria for the variables required in this research in full</td>
<td>12</td>
</tr>
<tr>
<td>Total samples used after outliers</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: Secondary data, processed 2023
Descriptive Statistical

In descriptive statistical analysis, there is a table that contains the mean, maximum, minimum, and standard deviation values used as an overview and description of a data in the research.

### Table 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>119</td>
<td>-5.06</td>
<td>0.00</td>
<td>0.000</td>
<td>0.52066</td>
</tr>
<tr>
<td>FRQ</td>
<td>119</td>
<td>-8.48</td>
<td>1.00</td>
<td>-61.3492</td>
<td>373.66931</td>
</tr>
<tr>
<td>AQ</td>
<td>119</td>
<td>18.11</td>
<td>0.07</td>
<td>27.0267</td>
<td>2.49877</td>
</tr>
<tr>
<td>CS</td>
<td>119</td>
<td>18.11</td>
<td>32.66</td>
<td>27.0267</td>
<td>2.49877</td>
</tr>
<tr>
<td>LEV</td>
<td>119</td>
<td>18.11</td>
<td>32.66</td>
<td>27.0267</td>
<td>2.49877</td>
</tr>
</tbody>
</table>

Source: Secondary data, processed 2023

### Table 3

<table>
<thead>
<tr>
<th>Variable analysis X2 (Dummy)</th>
<th>Audited Big 4</th>
<th>Unaudited Big 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and logistics companies listed on the IDX during the period 2018-2022</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

In this research, the dependent variable is investment efficiency. Investment efficiency is quantified by taking the absolute value derived from the residual value of the regression of total investment with sales growth, multiplied by -1 to signify that a value is efficient, with a mean value of 0.0017. The standard deviation is calculated as 0.51879, indicating the degree of variability in investment efficiency scores. The maximum recorded value for investment efficiency is 5.06, while the minimum value is -0.81, illustrating the range of efficiency values observed in the dataset.
The quality of financial reporting, as assessed in this research, is characterized by a standard deviation value of 372.13688. This assessment employs profit management proxies, where the quality value of financial reporting is determined through the regression results of net income minus changes in operating cash flows and all other relevant proxies. The mean value for the quality of financial reporting is recorded at -60.8455. The maximum observed value in this context is 8.48, while the minimum value is -3100.61, indicating the range of quality values for financial reporting in the dataset.

Audit quality is measured using dummy variables, if the company is audited by Big4 it is given the code "1" and if then the company is audited other than Big4 then it is given the code "0". The results of the audit quality value seen in table 3 show that in transportation and logistics companies during the 2018-2022 period audited by KAP big 4 there were 6 companies (30 observations) and those audited other than KAP big 4 amounted to 18 companies (90 observations).

### Table 4

<table>
<thead>
<tr>
<th>Test Results of Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koefisien</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>FRQ</td>
</tr>
<tr>
<td>AQ</td>
</tr>
<tr>
<td>CS</td>
</tr>
<tr>
<td>LEV</td>
</tr>
</tbody>
</table>

Source: Secondary data, processed 2023

The Effect of Financial reporting quality on Investment Efficiency

The presented table indicates a significant positive impact of the quality of financial reporting on investment efficiency. This is evident from the positively directed coefficient value of 0.000 and the corresponding significance level (Sig.) of 0.005 (0.005 = 0.005). The findings of this research align with previous research conducted by (Biddle, 2009a; Mubyarto & Zahara, 2022; Shahzad et al., 2019), all of which also observed a positive correlation between the quality of financial reporting and investment efficiency. These studies concluded that a high-quality financial statement facilitates information equality between managers and owners, consequently influencing more efficient investment decision-making. Contrastingly, these results differ from the findings of (Firmansyah et al., 2022; Houcine, 2017), who concluded that the quality of financial reporting does not necessarily lead to immediate implications for efficient investment decisions. Their studies present an alternative perspective, suggesting that other factors or conditions may play a role in influencing the relationship between the quality of financial reporting and investment efficiency.
This research found that a financial statement affects investment efficiency. Quality financial reporting, presented on time and presenting accurate information can provide relevant information about a company's financial performance (K & Nabeng, 2022). The interpretation draws on agency theory, positing the existence of an agency problem between managers and company owners. According to this theory, high-quality financial reporting play a pivotal role in enhancing investment efficiency. This is achieved by furnishing accurate and reliable information, thereby reducing information asymmetry between managers and company owners and facilitating sound investment decision-making, as highlighted in the work of (Khoerulloh & Janwari, 2021). Consequently, companies are encouraged to prioritize the quality of their financial reporting to not only enhance investment efficiency but also to attract potential investors. (Affan, 2019) further supports this perspective, asserting that, on a general scale, high-quality financial reporting exert a positive impact on investment efficiency within a company.

The Effect of Audit Quality on Investment Efficiency

In testing the second hypothesis, namely independent variables, audit quality has a positive and significant influence on investment efficiency. This can be seen from the positive coefficient of 0.680 and the Sig value of 0.001 (0.001<0.005). This is in line with research conducted (Firawan & Dewyanto, 2021a; Hidayati, 2019; Shahzad et al., 2019) which states that high audit quality can influence efficient investment decisions where high audit quality can provide positive competitive advantages to companies audited from Big4 and generate positive economic consequences and lead to investment efficiency decisions. However, it is not in line with research conducted (Siregar & Nuryanah, 2019) which found that audit quality does not affect a company's investment efficiency decisions.

From this research, it is proven that Big 4 that are recognized as having a strong reputation will maintain their performance in conducting high-integrity audits. Good big4 performance will be an efficient monitoring and will reduce information asymmetry and agency conflicts (agency theory) between owners and managers. With a quality audit, it will reduce the information gap between managers and owners and become a supervisory role for managers so that they can make efficient investment decisions.

CONCLUSION

This research aims to determine the effect of financial reporting quality and audit quality on investment efficiency in transportation and logistics companies listed on the IDX. The research used a sample of 24 companies with a span of five consecutive years from 2018 to 2022 so that the total sample obtained was 120. Based on the analysis and testing of the results data in the research, it was concluded that:

1. The positive impact of the quality of financial reporting on investment efficiency is consistent with the findings of previous studies such as those conducted by Shahzad et al. (2019) and Biddle (2009). However, this aligns differently from the outcomes of studies by Firmansyah et al. (2022) and Houcine (2017), which did not observe a similar positive relationship.
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2. The positive influence of audit quality on investment efficiency is congruent with the results of the research conducted by Shahzad et al. (2019). However, this contrasts with the findings of the research conducted by (Lai, 2009), which did not reveal a similar positive association.

The research findings offer positive implications for business practices, audit institutions, regulations, and investor decisions in the Indonesian transportation and logistics sector (2018-2022). Companies are advised to enhance financial reporting processes for better stakeholder information. Collaborating closely with audit institutions ensures optimal audit quality, with their specific recommendations serving as a basis for internal improvements. Regulators should consistently review and update guidelines to align with business trends and international standards. Investors can rely on these research findings to assess investment potential, emphasizing the importance of financial reporting and audit quality in decision-making. Implementing these recommendations is expected to bring sustained improvements in investment efficiency and information transparency in the sector.

This research has limitations in its implementation to examine the efficiency of investment in transportation and logistics companies in Indonesia. Below will be explained some of the limitations faced by researchers:
1. The research sample was made only referring to transportation and logistics sector companies that have been audited and listed on the IDX.
2. The variables used are only the quality of financial reporting and the quality of audits to test their effect on investment.

Based on the limitations experienced when conducting this research, the researcher provides suggestions that can later be useful for further researchers to improve or develop in future research. Suggestions that researchers can give for the success of further research, namely:
1. Addition of the company sector studied so that the number of samples used is larger.
2. Add variable factors if there are variables that affect investment efficiency and have not been added.

REFERENCE
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Biddle, A. (2009b). Title How does financial reporting quality relate to investment efficiency? Rights Creative Commons: Attribution 3.0 Hong Kong License. Citation Journal Of Accounting And Economics.


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