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Quality of Financial Statements, Investment Efficiency and Firm Value

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ABSTRACT: This study aims to analyze the effect of the quality of financial statements on firm value through investment efficiency. This type of research is explanatory with a purposive sampling technique obtained by 82 companies with 284 observations of manufacturing companies listed on the Indonesia Stock Exchange during the 2018-2020 research period. Data analysis used is descriptive statistical analysis and path analysis using multiple regression. The results of the study show that the quality of financial statements has an effect on investment efficiency and firm value. investment efficiency, overinvestment, and underinvestment mediate the effect of report quality.

KEYWORDS: Quality of Financial Statements, Company Efficiency, Overinvestment, Underinvestment, and Firm Value

I. INTRODUCTION

Financial reports are used by various parties for decision making, such as credit decisions, investment decisions, product purchasing decisions or tax decisions. In order for the decisions taken to be useful, the financial statements as one of the information must be of high quality. For investors, the quality of financial reports minimizes information asymmetry so that it helps better investment allocation. Meanwhile, for management, the quality of financial reports can increase investment efficiency (Biddle, 2009).

The low quality of financial reports can mislead investors in making decisions, resulting in wrong decisions being taken (Myers, Myers & Omer 2003). Financial scandals in the United States (Enron, Worldcom), Europe (Parmalat), Japan (Toshiba) and Indonesia (Kimia Farma and Garuda) that manipulated financial reports had an impact on low investor confidence in the company, which was reflected in the decline in the company's share price. Several of these cases reinforce the belief that quality financial reports are a necessity.

Firm value is a topic that has attracted the attention of researchers to find out the factors that influence it. Several studies on the impact of financial statements on firm value, including those conducted by Weeks et al., (1987), Siagian et al., (2013),Nam (2019), and Dank et al., (2020). Their research findings show different results because they use different measurement techniques.

Dank et al., (2020) using data from 3,910 observations on the Vietnam Stock Exchange in 2010-2018 found that earnings quality is positively related to firm value. In the context of Indonesian research Siagian et al. (2013) on the Indonesian capital market found that the quality of financial reports as measured by the reporting quality index (the RQI) is negatively related to firm value. Their findings are not in accordance with the hypothesis, namely the quality of financial statements is positively related to firm value. Research conducted by Purnamasari et al. (2016)using food and beverage sub-sector data for 2011-2015 showed the same results as research by Siagian et al. (2013) that earnings quality has no effect on firm value. Research conducted by Munthe and Septiani (2020) on 88 companies in 2016-2017 in the manufacturing industry listed on the IDX does not support the hypothesis put forward that the quality of company annual reports has a positive effect on Firm Value.

Investment decisions are based on the expectation of obtaining reasonable profits in the future. Investment is not only seen from the amount of investment made but also based on investment efficiency. Investment efficiency is an optimal level of investment that benefits companies that have an impact on improving company performance, but many companies experience investment inefficiency, both underinvestment, and overinvestment, due to several reasons such as management decision errors, lack of availability of investment funds or high cost of capital (Hubbard, 1998; Verdi, 2006). The reason companies spend excess funds for investment is first to generate greater investment opportunities. Second, it indicates that the capital market has confidence in the company and its management. The reason for companies reducing their investment expenditures is that if managers have high investment expenditures, they must increase capital requirements so that they can adjust their spending

needs which refer to the company's capital structure (Titman et al., 2016). Investment efficiency is related to the company's ability to optimize investments that have an impact on growth (Benlemlih, 2015). Agency theory explains that the information gap between company managers (managers) and shareholders encourages the emergence of moral hazard (Jensen and Meckling, 1976; Jensen, 1986). Actions of inefficiency indicate a waste of company resources. Therefore, the act of carrying out the adverse selection and moral hazard has an impact on information asymmetry. Biddle et al. (2009) proved that managers who prioritize their personal interests tend to make investments that are not in line with shareholders..

II. THEORY FRAMEWORK AND HYPOTHESIS DEVELOPMENT

The company's main goal is to increase the wealth of shareholders (investors). Firm value is used as an indicator that reflects the prosperity of shareholders reflected in the stock price. A higher share price results in a higher Firm Value. A higher Firm Value will build market confidence not only in the company's current performance but also in the company's prospects in the future. On the other hand, firm value is the investor's perception of the company's success. The increase in stock prices shows investor confidence in the company. Investors are willing to pay higher by expecting a higher return. High stock prices can be a good signal (good news) to attract investors in making investment decisions.

One indicator that is widely used to determine a company's value is Tobin's Q. The Tobin's Q ratio provides relatively better information than the other ratios because it includes all elements of the company's debt and share capital as well as all assets. Tobin's Q measures performance by comparing two assessments of the same asset. If the company has a value greater than the previous base value, it will have costs to increase returns, and profits are likely to be earned. Based on Tobin's thinking, that the incentive to make new investment capital is high when securities (shares) that provide future profits can be sold at a price higher than the investment cost (Fiakas, 2005). Firm value can be interpreted as a company's economic value that is ready to be paid by market forces. Prior literature suggests different measures of firm value, with Tobin's Q and market price-to-book ratio being the most common.

According to agency theory, the information gap between management and shareholders encourages the emergence of moral hazard (Jensen and Meckling, 1976; Jensen, 1986). Actions of inefficiency indicate a waste of company resources. Therefore, the act of carrying out adverse selection and moral hazard has an impact on information asymmetry. Biddle et al. (2009) proves that managers who prioritize their personal interests tend to make investments that are not in line with shareholders.

A. Quality of Financial Reports and Investment Efficiency

Financial statements aim to provide information about the financial position, financial performance and cash flows of an entity that is useful to the majority of report users in making economic decisions. The quality of financial reporting is used as a basis for investor considerations to determine the right investment decision, so that the investment made will be efficient. The higher the quality of financial reporting, the more company information is reflected in the financial statements. Biddle et al,. (2009) and Chen et al. (2011) proved that the quality of financial reports affects investment efficiency and can reduce overinvestment and underinvestment problems.

Investment is an activity that requires large resources, both from within and outside the company. Therefore, investments made by companies should be decided based on investment criteria, including using net present value (NPV) criteria. Based on the NPV criteria, investment can be divided into two conditions, namely efficient investment and inefficient investment. Higher quality financial reporting allows companies with limited capital to attract capital more easily by making their investment activities more visible, and reduces adverse selection in issuing securities. Higher quality financial performance can reduce managerial incentives to overinvest and increase investors' ability to monitor management activities in investing.

Efficient investment activity can be increased if the quality of financial reporting and investment efficiency are positively related(Lai, Liu and Wang, 2014). Ahuja and Novelli (2017) show that quality financial reports can reduce overinvestment conditions. The condition of overinvestment illustrates that the amount of investment made, but the company only gets a little profit. Research result García et al. (2016) indicates that there is no effect between the quality of financial reporting on investment efficiency. The research results of Handayani et al. (2016) with data for 2007-2012 in 5 ASEAN countries (Indonesia, Malaysia, the Philippines, Singapore and Thailand) show that the quality of financial reporting has a negative relationship with underinvestment but has no effect on overinvestment. Based on this relationship the hypothesis proposed is:

H_1 : The quality of financial reports increases investment efficiency.

H_{1a} : Quality financial reports reduce the problem of overinvestment.

H_{1b} : The quality of financial reports reduces the problem of underinvestment.

B. Quality of Financial Statements and Firm Value

The market share price is a reflection of the company's value. High stock prices result in high Firm Value. High Firm Value will build market confidence not only in the company's current performance but also in future prospects. The market value of a company's shares is influenced by many factors, such as the previous share price, the company's financial performance, corporate actions, debt policy, dividend policy, earnings quality, and quality of financial statements.

Quality financial reports are expected to help investors and potential investors to make quality decisions. Investment decisions based on unqualified financial reports can lead to wealth transfer errors, because unqualified financial reports will give unfavorable signals.

Hessayri and Saihi (2017) proves the positive benefits of quality financial reports in emerging markets, namely Morocco, South Africa, and Turkey that with the implementation of the International Financial Reporting Standard (IFRS), the quality of financial reports increases along with reduced information asymmetry so that it has a positive effect on Firm Value. The results of Hutagol et al. (2019) on the Indonesia Stock Exchange (IDX) using 438 companies from 1995-2016 shows that earnings quality (Earning Quality) has a negative effect on Firm Value. Latif et al. (2017) used 214 non-financial companies on the Pakistan Stock Exchange in 2003-2014 to prove that earnings quality contributes positively to maximizing firm value.

H_2 : The quality of financial reports increases the value of the company.

H_{2a} : Quality of financial statements value the company on overinvestment.

H_{2b} : Quality of financial statements value companies on underinvestment

C. Quality of Financial Statements, Investment Efficiency and Firm Value

Quality financial reports are a necessity for companies to provide benefits, especially for company owners. Quality financial reports are a positive signal that the company is managed professionally, with integrity and transparency so as to provide the benefits of creating efficient investments which can ultimately increase the value of the company. Biddle et al. (2009) and Chen et al. (2011) proved that FRQ has an effect on investment efficiency and can reduce overinvestment and underinvestment problems. While the results of research examining the effect of the quality of financial reports on firm value are relatively diverse, there are research results that do not support the proposed hypothesis (Siagian et al. 2013; Purnamasari et al. 2016). Investment efficiency shows management's ability to use limited resources effectively.

H_3 : The quality of financial reports increases the value of the company through investment efficiency

H_{3a} : The quality of financial reports increases the value of the company through overinvestment.

H_{3b} : The quality of financial reports increases the value of the company through underinvestment.

III. METHOD

A. Data and Samples

This study uses secondary data with a sample of 82 manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2017-2020. The sample selection used purposive sampling with the following conditions: (1) Manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period. (2) Manufacturing companies that publish annual financial reports on the IDX website for the 2016-2020 period. Based on these criteria, the number of samples in this study were 82 companies so that the observation data was 246.

B. Variable Measurement

The variables examined in this study are classified into dependent variables, independent variables, mediating variables, and control variables. The independent variables in this study are firm value, independent variable report quality, investment efficiency intervening variables which are grouped into investment efficiency, overinvestment, and underinvestment. Control variables consist of company size, leverage, and company growth.

1) Firm Value

Firm value is measured by Tobin's Q which is a comparison between the market value of equity plus book market value plus debt. Measurement of firm value uses Tobin's Q. If Tobin's Q is above one, it indicates that investment in assets generates profits that provide a higher value, which will stimulate new investment, but if Tobin's Q is below one it is the opposite. Tobin's Q can be formulated as follows:

$$\text{Tobin's Q} = \frac{\text{EMV+D}}{\text{EBV+D}} \quad \ldots\ldots(1)$$

in this case:

Tobin's Q : Firm Values

EMV : *Equity Market Value*
EBV : *Equity Book Value*
D : Book Value of Total Debt

Equity Market Value (EMV) is obtained by multiplying the year-end closing share price by the number of shares outstanding at the end of the year. Book Value Equity (EBV) is obtained from the difference between the company's total assets and total liabilities.

2) Investment Efficiency

Investment efficiency will be created when there is no deviation from the investment level expected by the company. However, if the company invests above optimal, there will be overinvestment, that is, the company has made a positive deviation. Conversely, if the company does not carry out all projects that are known to benefit the company, there will be underinvestment (lack of investment), this means that the company has made a negative deviation.

Investment efficiency in this study is measured by the model used by Biddle et al., (2009) to estimate the level of investment expected by company i in year t based on growth opportunities as measured by sales growth.

$Investments_{i,\,t+1} = \beta 0 + \beta 1 Sales\ Growth\ i,t + \varepsilon i,t$ .... (2)

description:

$Investments_{i,t+1}$: the total investment of company i in year t, calculated from the increase in tangible and intangible assets divided by lagged total assets.

$Sales\ Growth_{i,t-1}$: the level of change in sales of company i from t-2 to t-1.

The residual value (εi,t) of model 2 reflects the deviation from the investment level expected by the company. The residual value is used as a proxy for investment efficiency. A positive residual value indicates that the company invests higher than the investment expected by the company in accordance with sales growth, so the company experiences overinvestment. Meanwhile, a negative residual value indicates that the company invests lower than the investment expected by the company in accordance with sales growth, so the company experiences underinvestment (Chen et al., 2011).

3) Quality of Financial Statements

The quality of financial reports used in this study refers to the Biddle model (2006) which uses the accrual quality (DD) measurement developed by Dechow & Dichev (2002) and modified by McNichols (2002) and Francis et al. (2005):

$WCA_{it} = \beta_0 + \beta 1 CFOi,\ t-1 + \beta 2 CFOi,t + \beta 3 CFOi,t+1 + \varepsilon i,t$ ..... (3)

description:

: accrued working capital calculated from changes in non-current assets less changes in current liabilities plus changes in short-term bank loans (short term loans).

CFOit-1, CFOit, and CFOi, t+1 : cash flow from operations calculated from the difference in net income before extraordinary items and total accruals. Total accruals are calculated from changes in non-current assets less changes in current liabilities plus changes in short-term bank loans, less depreciation.

All variables are divided by lagged total assets. The residual value of the equation reflects working capital accruals explained by cash flows from the year and adjacent period. This proxy will be the absolute value of the residual value multiplied by -1, so the highest value will indicate high-quality financial reporting.

a) Company Size

The size of the company in this study is expressed by total assets, the greater the total assets of the company, the greater the size of the company. The bigger the asset, the more capital invested. Company size can be seen from the total assets owned by the company. Firm size is measured using the natural log of total assets (Klapper and Love, 2002).

SIZE = log total asset

b) Leverage

Leverage in this study is measured by the debt to asset ratio (DAR), which is the ratio between long-term debt and total assets. The higher the DAR, the higher the risk faced by the company.

c) Company Growth

Company growth is measured using sales growth (Sales Growth Ratio), with the following formula:

$$\text{Net Sales Growth Ratio} = \frac{\text{Net Sales} - \text{Net Sales}_{t-1}}{\text{Net Sales}_{t-1}}$$

Table. 1 Variable Classification and Indicators

Variable	Operational definition	Measurement
Dependent Variable		
The value of the company	Firm Value is the amount that must be paid to buy/take over the company	$\text{Tobin's Q} = \frac{\text{EMV+D}}{\text{EBV+D}}$
Independent Variable		
Quality of Financial Statements	The quality of financial reports shows the ability of financial reports to convey information about operations company, especially regarding expected cash flows.	WCAit = β0 + β1CFOi,t-1 + β2CFOi,t + β3CFOi,t+1 +$_{i,t}$.
Intervening Variables		
Investment Efficiency (EFF) Overinvestment (OFF) Underinvestment (UFF)	Investment efficiency is the condition that the company carries out all projects with a positive NPV and there is no deviation from the investment level expected by the company Residual Positives of Model (2) Negative Positive Residual of Model (2)	*Investments*$_{i,t+1}$= β0 + β1Sales Growth i,t + εi,t
Control Variables		
Firm size (UP)	Company size shows the size of the company based on company assets.	ln Total Assets
Leverage (LEV)	*Leverage* is the company's ability to use long-term debt in procuring assets to increase the level of income as measured by the debt to asset ratio.	DAR = $\frac{\text{Liabilitie s}}{\text{Assets}}$
Company Growth (PP)	Growth shows the company's sales growth rate every year.	PPT = $\frac{\text{Pt}-\text{Pt}-1}{\text{Pt}-1}$

C. Data analysis technique

There are 2 analytical techniques to answer the hypothesis, namely descriptive analysis and path analysis.

2) Descriptive Analysis

Descriptive analysis is used to explain the general description of the variables studied. The general description is presented in the form of descriptive statistical tables which are the results of measuring the mean, minimum and maximum values and the deviations of all variables.

3) Path Analysis

The t test is used to test the significant level of influence of the independent variables partially on the dependent variable. The hypothesis criterion is accepted for direct influence by means of the t test, ie if the sig. value≤0.05 then Ha is accepted. If the sig.> 0.05 then Ha is rejected. For indirect effects, use the stages used by Riduwan et al., (2013) by comparing the total value of direct and indirect effects on the value of direct influence. If the total value is greater than the direct effect value, then there is a variable*intervene*.

D. Research Model

Based on the conceptual framework of this research (figure 1), the research uses 2 research models. Model 1 is a direct test, namely the direct effect of the quality of a company's financial reports on investment efficiency. Model 2 tests the indirect effect of financial report quality, investment efficiency, firm size, leverage, and growth on firm value. To test efficiency as an intervening variable using the coefficient multiplication method (Solimun, 2010).

The path analysis model stated in the panel data regression model 1 and model 2 is:

Model 1:

EFFit, ,= KLKit + εit 1

OFFit,, = KLKit + εit 1a

UFFit,, = KLKit + εit 1b

Model 2:

NPit = ρ_{NPKLK}KLKit + EFFit; + ρNPLnUPLnUPit + ρNPLEVLEVit + PPPPt + εit ……. 2

NPit = ρ_{NPKLK}KLKit + OFFit; + ρNPLnUPLnUPit + ρNPLEVLEVit + PPPPt + εit ……. 2a

NPit = ρ_{NPKLK}KLKit + UFFit; + ρNPLnUPLnUPit + ρNPLEVLEVit + PPPPt + εit ……. 2b

E. Model Testing

The results of testing the data model 1 (table 5) and model 2 (table 6). Before testing the data, a classic assumption test is carried out for panel data, namely the normality test, testmulticollinearity, and heteroscedasticity test. Based on the test results, model 1 and model 2 meet the classical assumption test. then forfind out whether the regression model formed is fit, meaning the quality of financial reports and investment efficiency, overinvestment, and underinvestment as explanatory variables for firm value. The criteria for seeing the suitability of the model is the F test. If the significance level is F <0.05, then the quality of financial reports and investment efficiency, overinvestment, and underinvestment are explanatory variables for firm value.

IV. RESULTS

Descriptive Analysis

Table 2 descriptive statistics show that 76% of companies are in the underinvestment group and 24% of the overinvestment group from a total sample of 246 observations. These results indicate that in Indonesia there are more companies experiencing underinvestment than overinvestment. These findings indicate that in manufacturing companies for the 2018-2020 period there was underinvestment which at macro level corresponds to low investment efficiency, a weakening incremental capital output ratio (ICOR) in 2018 of 15.09 to 6.89 in 2019. The lower the ICOR number, the more high investment efficiency.

FlatThe average value of the investment efficiency sample firms is relatively the same, but the average value of the overinvestment sample firms is higher than the investment efficiency and underinvestment samples. The firm value (NP) of the investment efficiency, overinvestment, and underinvestment samples has a mean tobins'q > 1. This result indicates that the firm's value as measured by tobins'q is in good condition.

Quality of Financial Statements (KLK) investment efficiency sample, showing a mean of 0.026 with a range from a minimum of -0.1671 to a maximum of 0.001 and a median of -0.01055. Overinvestment, shows a variable mean of -0.026 with a standard deviation of 0.033 with a range from a minimum of -0.1671 to a maximum of 0.0002. Underinvestment, showing a mean of -0.019 with a standard deviation of 0.023 with a minimum of -0.105 to a maximum of -0.001. The mean quality of overinvestment financial reports is higher than efficiency and underinvestment companies.

Descriptive statistics on the value of efficient sample firms show a mean variable size of LnUP firms of 7.951, standard deviation of 1.641, with a minimum range of 4.489 to a maximum of 12.597.

Overinvestment, shows the mean descriptive variable firm size is LnUP 8.341 with a standard deviation of 1,538, with a range from a minimum of 5.508 to a maximum of 12.507. Underinvestment, shows the mean descriptive variable company size LnUp 7.864 with a standard deviation of 1.568m with a minimum range of 4.991 to a maximum of 11.478. The mean size of overinvestment firms is higher than the underinvestment sample firms and efficiency firms samples.

Leverage descriptive statistics show that the mean leverage is 0.321 with a standard deviation of 0.265, with a minimum range of 0.027 to a maximum of 2.851. Overinvestment, the mean leverage is 0.300 with a standard deviation of 0.161 with a range from a minimum of 0.058 to a maximum of 0.663. Underinvestment, shows the mean leverage descriptive variable is 0.328 with a standard deviation of 0.290 with a minimum range of 0.027 to a maximum of 2.851. The mean underinvestment is higher than efficient companies and overinvestment.

Descriptive statistics on the growth of firms in the investment efficiency sample show that the mean firm growth variable is 0.086 with a standard deviation of 0.333, with a range from a minimum of -0.702 to a maximum of 4.033. Overinvestment, shows a mean of 0.204 with a standard deviation of 0.538 with a range from a minimum of -0.135) to a maximum of 4.033. Underinvestment, shows the mean company growth variable is 0.050 with a standard deviation of 0.226 with a range from a minimum of -0.702 to a maximum of 2.025 and a median of 0.047. The mean growth of overinvestment companies is higher than the sample of overinvestment companies and investment efficiency.

Table 2. Descriptive Statistics Results

Variable	Obs	Means	Median	std. Deviation	Minimum	Maximum
Investment Efficiency						
NP	246	1.162	0.953	0.798	-2,809	2,995

KLK	246	-0.020	-0.011	0.024	-0.120	0.001
EFF	246	-0.032	-0.015	0.031	-0.108	0.001
LnUP	246	7,951	7,821	1614	4,489	12,597
Lev	246	0.326	0.272	0.271	0.027	2,851
pp	246	0.087	0.054	0.331	-0.702	4,033
Overinvestment						
NP	58	1.165	1,001	0.950	-2,756	2,906
KLK	58	0.026	0.011	0.033	0.000	0.167
EFO	58	0.030	0.014	0.029	0.001	0.104
LnUP	58	8,341	8,418	1,583	5,508	12,597
Lev	58	0.299	0.259	0.161	0.058	0.663
pp	58	0.204	0.115	0.539	-0.135	4,033
Underinvestment						
NP	188	1,160	0.916	0.748	2,995	-2,809
KLK	188	-0.019	-0.011	0.277	-0.105	-0.001
EFU	188	-0.032	-0.015	-0.015	-0.108	-0.001
LnUP	188	7,864	7.7356	1,568	4,991	11,478
Lev	188	0.328	0.270	0.290	0.027	2851
pp	188	0.049	0.046	0.225	-0.702	2025

Source: IDX data processed in 2022

Table 3. Pearson Correlation Analysis of Investment Efficiency, Overinvestment, and Samples Underinvestment

	NP	KLK	EFF	LnUP	Lev	pp
NP	1,000					
KLK	.263	1,000				
EFF	.246	.313	1,000			
LnUP	.250	.174	047	1,000		
Lev	.136	.019	.060	-.013	1,000	
pp	-.117	-.211	-.071	.028	-.115	1,000

Pearson Correlation Analysis of Sample Overinvestment

	NP	KLK	EFF	LnUP	Lev	pp
NP	1,000					
KLK	-.315	1,000				
EFF	-.355	.255	1,000			
LnUP	.205	-.112	-.092	1,000		
Lev	.166	-.026	-.158	.219	1,000	
pp	-.132	.308	089	006	-.093	1,000

Pearson Correlation Analysis of Underinvestment Samples

	NP	KLK	EFF	LnUP	Lev	pp
NP	1,000					
KLK	.216	1,000				
EFF	.195	.287	1,000			
LnUP	.283	.185	.065	1,000		
Lev	.137	-.011	.036	.000	1,000	
pp	-.112	-.052	-.084	-.011	-.137	1,000

Source: IDX data processed in 2022

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Regression Analysis

Table 3 and table 4 show the results of the panel data regression model 1 and model 2. Table 4 shows the panel data regression model. Based on table 3 and table 4, there are two equations, namely:

Regression Results Model 1

Test result the quality of financial reports on investment efficiency, overinvestment and underinvestment is presented in table 3. The investment efficiency sample produces a regression coefficient for the variable quality of financial statements (KLK) of 0.313 t value 4.289 (p=0.000) significant at α=1%. The overinvestment sample produces a regression coefficient of 0.255 with t 1.972 (p=0.054) significant at α=10%. The overinvestment sample produces a regression coefficient of -0.287 and a t-value of -4.089 (p=0.000) which is significant at α=10%. These results indicate that the effect of the quality of financial reports on efficiency, overinvestment, and underinvestment has an effect on investment efficiency, overinvestment, and underinvestment. Therefore H1, H2a, and H3a are accepted.

Table.4 Regression Results Model 1

Variable	Dependent Variable: EFF			Dependent Variable: EFO			Dependent Variable: EFU		
	Investment Efficiency Sample (EFF)			Overinvestment sample (EFO)			Underinvestment Sample (EFU)		
	std. Koef.	t value	Prob.	std. Koef.	t value	Prob.	std. Koef.	t value	Prob.
KLK	0.313	4,289	0,000***	0.255	1972	0.054*	-0.287	-4,089	0,000***
R2	0.070			0.065			0.082		
Adj_R2	0.066			0.048			0.078		
F-Stat.	18.40			3,887			16,718		
Sig. F	0,000***			0.034**			0,000***		

Description: * significant at the 0.10 level; ** significant at the 0.05 level; and *** significant at the 0.01 level

Model 2 Regression Results

The influence of Quality of Financial Statements, investment efficiency, Overinvestment and Underinvestment on Firm Value (Panel A, Panel B and Panel C) in table 2 is respectively described as follows:

The regression coefficient for the variable quality of financial statements (KLK) for the investment efficiency sample is 0.154 and the t value is 2.391 (p=0.018). These results indicate that the effect of financial report quality on firm value in the efficiency sample (Panel A) is statistically significant at α=5%. The direction of the positive coefficient means that the higher the quality of the financial statements produced by the company, the higher the value of the company. For the overinvestment sample, the regression coefficient is 0.218 with a t value of 1.626 (p=0.110). These results indicate that the quality of financial statements has no effect on firm value in the overinvestment sample (Panel B). For the underinvestment sample, the regression coefficient is 0.130, t value is 1.795 (p=0.074). These results indicate that the quality of financial statements has an effect on firm value in the underinvestment sample (Panel C) which is statistically significant at α=10%. The direction of the positive coefficient means that the higher the quality of the financial statements produced by the company, the higher the value of the company. Therefore, the hypothesis that the quality of financial reports has a positive effect on firm value in the investment efficiency sample (H2) and the underinvestment sample (H2a) is accepted, while the overinvestment sample (H2b) is rejected. However, in the overinvestment sample the value without a significant control variable is at α=10%. The direction of the positive coefficient means that the higher the quality of the financial statements produced by the company, the higher the value of the company. Therefore, the hypothesis that the quality of financial reports has a positive effect on firm value in the investment efficiency sample (H2) and the underinvestment sample (H2a) is accepted, while the overinvestment sample (H2b) is rejected. However, in the overinvestment sample the value without a significant control variable is at α=10%. The direction of the positive coefficient means that the higher the quality of the financial statements produced by the company, the higher the value of the company. Therefore, the hypothesis that the quality of financial reports has a positive effect on firm value in the investment efficiency sample (H2) and the underinvestment sample (H2a) is accepted, while the overinvestment sample (H2b) is rejected. However, in the overinvestment sample the value without a significant control variable is at α=10%.

Table 5. Model 2 Regression Results

Independent Variables and Descriptions	Dependent Variable Koef./t value/p-value					
	The value of the company Investment Efficiency (EFF-Panel A)		The value of the company *Overinvestment* (EFO-Panel B)		Firm Value-Underinvestment (EFU-Panel C)	
	No Control Variables	With Control Variables	No Control Variables	With Control Variables	No Control Variables	With Control Variables
KLK	0.206	0.154	0.241	0.218	0.175	0.130
	3,215	2,391	1,905	1,626	2,357	1,795
	(0.001)**	(0.018)**	(0.062)*	(0.110)*	(0.019)**	(0.074)*
EFF, OFF, UFF	0.181	0.175	-0.294	-0.270	0.144	0.130
	2,823	2,814	-2,327	-2,097	1947	1,819
	(0.005)***	(0.005)**	(0.024)**	(0.041)**	(0.053)*	(0.071)*
LnUP		0.218		0.138		0.249
		3,620		1,082(0.284)		3,583
		(0.000)***		0.084		(0.000)***
Lev		0.118		0.653		0.123
		1,983		(0.517)		1,787
		(0.048)*		-0.034		(0.076)*
pp		-0.064		-0.260		-0.075
		-1.048		(0.796)		-1,081
		(0.295)		0.212		0.281
R2	0.099	0.162	0.180	0.136	0.066	0.149
Adjusted R2	0.091	0.144	0.150	2,790	0.056	0.126
F-Statistics	13,289	9,247	6,044	(0.026)**	6,530	6,389
Significance of F	(0.000)*	(0.000)***	(0.004)***		(0.002)**	(0.000)***

Description: * significant at the 0.10 level; ** significant at the 0.05 level; and *** significant at the 0.01 level

Mediation Variable Test Results

The mediating role of investment efficiency variables, over investment and Underinvestment on the Effect of Quality of Financial Statements on Firm Value is presented in table 6.

Table 6. Effect of Quality of Financial Statements on Firm Value through Investment Efficiency, Overinvestment, and Underinvestment

Description	Mediation Variables	Firm Value Dependent Variable		Total Impact	The Role of Mediation Variables
	Direct Influence	Direct Influence	Indirect Influence		
Investment Efficiency Sample					
KLK NP		0.154 (0.018)**			
KLK EFF	0.313 (0.000)***				
EFF NP		0.175 (0.005)**			
KLK EFF NP			0.054775	0.208775	mediation
Overinvestment sample					

KLK□NP		0.218 (0.101)*			
KLK□OFF	0.255 (0.000)***				
OFF□NP		0.270 (0.041)**			
KLK□OFF□NP			0.06885	0.28685	mediation
Underinvestment sample					
KLK□NP		0.130 (0.074)***			
KLK□UFF	0.287 (0.000)***				
UFF□NP		0.130 (0.071)***			
KLK□UFF□NP			0.03731	0.16731	mediation

Description: * significant at the 0.10 level; ** significant at the 0.05 level; and *** significant at the 0.01 level

The results of the calculation of the mediating role of investment efficiency, overinvestment, and underinvestment variables show that the total effect of the three variables is greater than the direct effect. For the investment efficiency variable, the total effect (0.209) is greater than the direct effect (0.154). The variables overinvestment and under investment each show a total effect of 0.167 and 0.287 greater than the direct effect of 0.218 and 0.130. These results indicate that the investment efficiency variable, overinvestment variable, and underinvestment variable act as intervening variables.

These findings indicate that management's ability to produce efficient investments and minimize overinvestment and underinvestment gives a positive signal to investors, that is, companies have tried to produce high quality financial reports so as to reduce information asymmetry which has an impact on reducing adverse selection and moral hazard actions by management. thus reducing the occurrence of underinvestment which has an impact on increasing Firm Value.

V. DISCUSSION

A. Effect of Quality of Financial Statements on Investment Efficiency, Overinvestment and Underinvestment

The results of hypothesis testing H1, H1a, H1b show that the quality of financial reports for the investment efficiency sample and the overinvestment sample has a positive effect on investment efficiency and a negative effect on underinvestment. These results indicate that high quality financial reports can increase investment efficiency and reduce overinvestment and underinvestment (increase investment efficiency). These findings prove that the higher the quality of financial reports, the lower the information asymmetry between managers and investors. Investors get accurate and comprehensive information about the company that can be used by investors to monitor the actions of managers in making decisions and implementing investments, so that management tries to take actions in accordance with the principles of correct investment, namely making efficient investments, not making investments that can harm the company by increasing the value of the investment or reducing the investment amount from what it should be. The results of this study are consistent with those of Biddle et al. (2009); Chen et al. (2011); Gomaris and Balesta (2014).

In agency relationships, quality financial reporting can reduce information asymmetry between management and investors or even creditors in making investment and funding decisions. For management, the quality of the good financial reports it produces prevents management from taking actions that could harm the company, investors or other interested parties, both in the short and long term. Quality financial reports are a reflection of a series of activities and decisions made by management that affect company performance and management performance. High quality financial reports provide confidence and rational considerations to investors, creditors and other users to name shares or provide funding or loans to companies. so as to mitigate the occurrence of underinvestment by reducing management actions not investing in projects with positive NPV. Conversely, for management, high quality financial reports will reduce discretionary actions and make it easier to assess optimal investment decisions so as to prevent management from overinvesting, so that management does not invest excessively with a positive NPV or invest in a negative NPV. The company growth control variable for the three samples has no effect on firm value, but has a negative direction on firm value. for management high quality financial reports will reduce discretionary actions and make it easier

to assess optimal investment decisions so as to prevent management from overinvesting, so that management does not over-invest with positive NPV or invest in negative NPV. The company growth control variable for the three samples has no effect on firm value, but has a negative direction on firm value. for management high quality financial reports will reduce discretionary actions and make it easier to assess optimal investment decisions so as to prevent management from overinvesting, so that management does not over-invest with positive NPV or invest in negative NPV. The company growth control variable for the three samples has no effect on firm value, but has a negative direction on firm value.

B. Effect of Quality of Financial Statements and Firm Value

Results of hypothesis testing H2. H2a, and H2b for all samples of investment efficiency and underinvestment samples of financial report quality have a positive effect on firm value. However, the overinvestment sample has no effect on firm value with a positive coefficient direction. These findings indicate that the level of compliance with the application of accounting standards (IFRS) in most manufacturing companies listed on the Indonesia Stock Exchange has been going well (Fitri and Faisal, 2017). These empirical results are consistent with the results of a study by Dang et al.,. (2020) on public companies listed on the Vietnam Stock Exchange using data for 2010-2018 as many as 3,910 observational data found the quality of financial reports has a positive effect on Firm Value.

The results of this study are different from those of Siagian et al. (2013) who found that the quality of financial reports has a negative effect on firm value. High quality financial reports give confidence to third parties, such as investors and other parties, to make relationships with companies that investors invest shares in companies and for creditors to provide loans to companies. If associated with control variables, firm size and leverage have a positive effect on firm value in the investment efficiency sample and the underinvestment sample, while the overinvestment sample has no effect. These findings indicate that companies that are able to improve the quality of financial reports provide a level of confidence for investors and creditors to invest and provide credit facilities with a low impact on underinvestment, because they have sufficient funds to fund investments with NPV> 1. Firm size has a positive effect on firm value in the investment efficiency and underinvestment samples indicating that the larger the company, the higher the level of investor and creditor confidence as reflected by the increase in firm value.

C. The Mediation Role of Investment Efficiency, Overinvestment, and Underinvestment on the Effect of Quality of Financial Statements on Firm Value

The results show that the quality of the financial statements of the investment efficiency sample has an impact on increasing firm value. The high quality of financial reports and low investment efficiency and underinvestment, the Firm Value becomes high. These findings indicate that management's ability to produce efficient investments by increasing investment efficiency and low overinvestment and underinvestment gives a positive signal to investors, that is, the company has tried to produce high quality financial reports so as to increase investment efficiency and reduce underinvestment which has an impact on increasing Firm Value.

VI. CONCLUSION

The results showed that the quality of the financial statements of manufacturing companies in general was in accordance with the applicable accounting standards. The results of this study indicate that high quality financial reports have a positive impact on investment efficiency and suppress overinvestment and underinvestment. High financial report quality across all samples (investment efficiency, overinvestment, and underinvestment) increases firm value. These findings indicate the level of compliance of the manufacturing industry in implementing financial accounting standards is running well which has a positive impact on investment efficiency and is able to suppress overinvestment and underinvestment which have an impact on firm value.

VII. LIMITATIONS

This study has several limitations as follows: first, the research model is relatively new, namely the variables of investment efficiency, overinvestment, and underinvestment as intervening variables between the quality of financial reports on firm value and firm value which are divided into 3 sample groups, namely investment efficiency samples, overinvestment samples, underinvestment samples and can be an advantage in this study, however, to test the consistency of research results, it is necessary to re-examine the model and the relationship between variables. In reflecting on the research variables, it is necessary to review them with different measurement models.

The second limitation, the collection of research data is relatively short, only 6 years, in which the 2019-2020 Covid-19 pandemic occurred and until this report was completed (2022), thus affecting economic and business conditions throughout the world, including Indonesia, which had an impact on company's financial performance. However, this research contributes to the development of the investment efficiency literature which plays a role in mediating the quality of financial reports on firm value.

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