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DETERMINANT FACTORS OF FINANCIAL REPORTING QUALITY AND ECONOMIC CONSEQUENCES

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Abstract

The aim of this research was to prove empirically the determining factors that influence the quality of financial reporting and the economic consequences, and there were influence differences of quality attributes of financial reporting to the economic consequences. The research samples were taken by purposive sampling so it obtained 141 listed manufacturing businesses from 2001 to 2006. The research used four data analysis technique: auxiliary regression R^2, confirmatory factor analysis, simple regression, and multiple regressions. The results showed seven attributes, there were five attributes that gave contribution for financial reporting quality namely accrual quality, predictability, smoothness, relevance value, and conservatism while the persistence and timeliness gave small contribution. The five attributes were also different each other. From the thirteen determining factors, it showed nine factors that produced significant influences namely operation cycle, sales volatility, firm size, firm age, loss proportion, leverage, environmental risk, institutional ownership, market concentration, and auditor quality, while the other three, they were liquidity, managerial ownership, and investment growth that were not significant. Testing results of economic consequences of quality of financial reporting showed that the quality of factorial financial reporting influenced negatively and significantly toward information asymmetry.

Key words*: financial reporting quality, economic consequences*

The understanding of financial quality reporting up to now is still varied, but principally financial reporting quality can be viewed in two view points. The first states that financial reporting quality relates with whole performance of business that is shown in the earning. Financial reporting information can be said high quality if the current year earning can become the indicator of future earning (Lev & Thiagarajan, 1993) or strongly associate with future operation cash flow (Dechow & Dichev, 2002). Implication of the view showed that the financial reporting quality relate with the financial reporting properties.

The second view states that financial reporting quality relates with company stock performance in the capital market. The relation becomes stronger between earning and market return showed that the financial reporting information become higher (Lev & Thiagarajan, 1993).

Financial reporting quality research can be conducted by two approaches (Cohen, 2003, Francis, et al., 2004, & Pagalung, 2006). The first

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approach, research that relates with investigating what factors that leads to good quality financial reporting, and the second approach, how far the financial reporting quality is responded by financial statement users. The approach relates with determinant factors that produce good quality financial reporting. The research focus relates with internal factors of company that relate with inherent or intrinsic factors of the company, where in other research use firm specifics or firm characteristics terms.

The second approach relates with external factors, that are the responses of financial reporting information user responses, how far the financial reporting quality is responded by financial statement users. One of main users of financial statement is investor, for investor, the available information are expected able to decrease the information asymmetry (Cohen, 2003, Francis, et al, 2004, and Pagalung, 2006). The economic theory states, ceteris paribus, the improvement of financial reporting information will decrease the information asymmetry (Easley & O'Hara 2003)

The research motivation was want to investigate the issues that pertain with financial reporting quality measurement. The research used financial reporting quality measurement by using seven attributes of financial reporting quality that consist of four accounting based attributes that consist of accrual quality, persistence, predictability, smoothness, and three market based attributes that consist of relevance value, timeliness, and conservatism. It was expected by using attributes, the research will give more explanatory power. *Second*, the research wants to investigate issues that pertain with financial reporting quality by focusing to investigate determining factors and the economic consequences directly. *Third*, the research models that discussed determining factors in Indonesia were still separated, not comprehensive and unified. The intended comprehensive model is model that considers the determining factors of financial reporting quality and its consequences in the Indonesian capital market together in one research. Beside that, the measurement of financial reporting quality so far in Indonesia still dominated by market based financial reporting quality, such as value relevance (Susanto & Ekawati, 2006) and earning response coefficient (Naimah & Sidharta, 2006). The other research that has used combines attributes that is Pagalung (2006) that used accounting based financial reporting quality. The attributes were accrual quality, persistence, predictability, and smoothness. *Fourth*, the research tried to make and investigate the alternative attributes of financial reporting quality that is factorial financial reporting quality.

The research problem pertained with determining factors of financial reporting quality and how far the produced economic consequences in the capital market. While the problem formulations as follows (1) do the accounting based quality attributes of financial reporting (accrual quality, persistence, and predictability and smoothness) and the market based (relevance value, timeliness, and conservatism) be the quality representation of financial reporting and different each other, (2) what are the determining factors that influence the quality of financial reporting, (3) do the quality of financial reporting influence the economic consequences, and (4) are there influence differences of quality attributes of financial reporting to the economic consequences.

The research contributions included theoretical contribution and practical contribution. While the research contribution in detail: first, the research proved that Valuation of Clean Surplus Theory that showed firm market value is reflected in the financial statement component (Feltham & Ohlson's, 1995). Second, the research used more than one financial reporting quality based on confirmatory theory (Cornel & Landsman, 2003), Cornel & Landsman (2003) stated that there is no single measurement whose results consistent in the financial

reporting quality to predict performance quality, because of that it needs multiple measurements of financial reporting quality.

The practical contribution of the research as follows. First, the results were expected able to give indications for firm management to make quality reporting because it was expected influenced the economic consequence. Second, the used financial reporting quality measurement in the research gave benefits to investors and market analyst of capital market (investors, brokers and security analyst) and investor candidate in future, especially in determining their investment decision related with financial reporting quality assessment that go public in Indonesian Stock Exchange (BEI).

The conceptual framework of the research can be seen in figure 1.

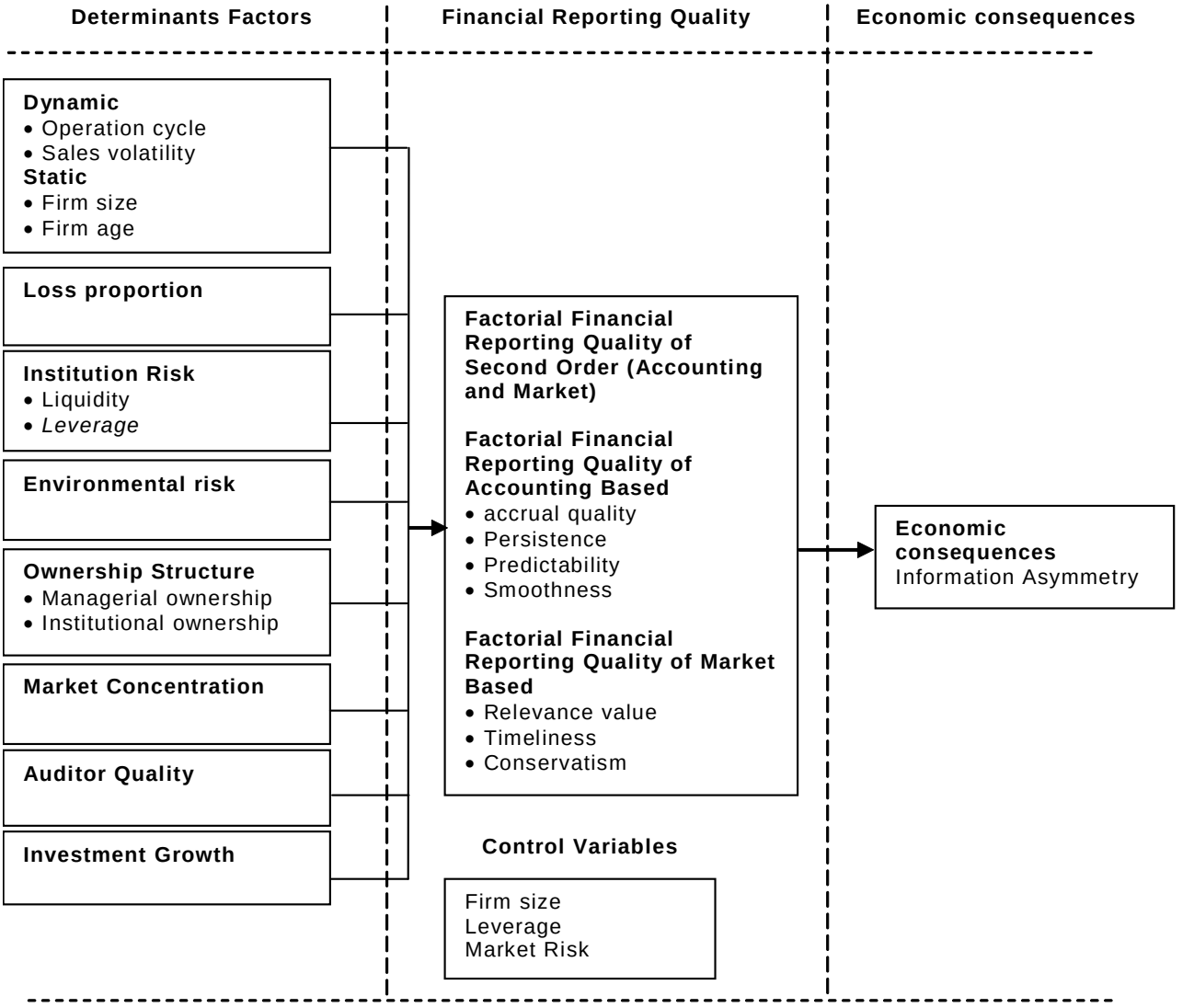

Figure 1. Conceptual Framework of Determinant Factors of Financial Reporting Quality and Economic Consequences

HYPOTHESIS

The proxy measurement of the used financial reporting quality in the research consisted of accrual quality, persistence, predictability, smoothness, relevance value, timeliness, conservatism, and financial reporting attributes that are the factorial analysis results of the four previous attribute (factorial financial reporting quality). The Francis et al. (2004; 2005) showed different financial reporting quality attributes or no overlap among financial reporting quality. The results showed that accrual quality at the first place or superior if compared with other attributes then followed by smoothness, persistence, predictability, relevance value, timeliness, conservatism. Based on the consideration, it could be formulated hypothesis as follows:

H_1: there are differences between financial reporting quality attributes

The second to fourteenth hypothesis tested the relationship between determining factors with firm financial reporting quality. The innate factor was one of important factors that influenced the financial reporting quality. Empirical researches has been conducted by Gu, et al. (2002), Dechow & Dichev (2002); Cohen (2003, 2006); Francis, et al. (2004), Pagalung (2006). The innate factors consisted of operation cycle, sales volatility, firm size, and firm age.

The firm operation cycle will produce lower financial reporting quality because the longer operation cycle will produce uncertainty, estimation and the greater estimation mistake will produce lower accrual quality (Dechow & Dichev, 2002). Based on the consideration, it could be formulated the operation cycle hypothesis as follow:

H_2: the longer operation cycle of companies then the lower their financial reporting quality.

Low sales volatility will show the earning capability in predicting cash flow in future. But if the high volatility is high, financial reporting quality will be low because the produced earning will contains many noises (Cohen, 2003, 2006). Based on the consideration, then the sales volatility hypothesis was formulated as follows:

H_3: the higher sales volatility of companies will cause lower their financial reporting quality.

From the firm size side, it could be said that big company will has stability and operation that could be predicted better that will cause smaller estimation mistake. Besides that, big company will has diversification better capability and has portfolio variation effects among divisions and its business activities so able to decrease the estimation mistake relative effects. Then, big companies will face high political sensitivity and face higher political cost than smaller companies (Gu, et al., 2002). Big companies will produce lower financial reporting quality, i.e Dechow & Dichev (2002), Pagalung (2006). Based on the consideration, then the firm size hypothesis will be formulated as follows:

H_4: the bigger companies the lower their financial reporting quality.

The older companies have operated the lower discretion in financial reporting quality and their accrual variability. The companies that have been long in operation lead to strong operation condition and financial performance will have small variability in its accrual (Gu, et al., 2002). Based on the consideration, the firm age hypothesis was formulated as follows:

H_5: the older age of companies will cause the lower their financial reporting quality.

Loss proportion factor of last year is one of important determining factors that make quality companies earning. If companies get earning, it will show the companies grow and sustainable, while if companies get loss, then the companies fill face difficulties (Dechow & Dichev, 2002; Francis, et al. 2004). Based on the consideration, the loss proportion factor was formulated as follows:

H_6: the larger loss proportion will cause the lower financial reporting quality.

Liquidity related with companies ability to pay their short term debt. Liquidity related closely with the creditor because if the company condition was not liquid then it means there is delay in interest and principal collection so the creditor will consider which company that will be given credit. Based on the consideration, the liquidity hypothesis was formulated as follows:

H_7: the higher liquidity of companies then the higher their financial reporting quality.

The leverage size will cause company to improve their financial reporting quality to defend the good performance for investor and auditor. With good performance then it was expected creditor will trust to the company, ready to give fund, and the company will get easiness in payment process (Cohen, 2003; 2006). Based on the consideration, the leverage hypothesis was formulated as follows:

H_8: the higher leverage of companies then the higher their financial reporting quality.

Beside internal risk factors of companies, the financial reporting quality of company will depend also to the external factors in the form of environmental risk. The environmental risk is the industrial portfolio risk or industrial classification risk because the received risks are different among companies. Based on the industrial classification, the environmental risk hypothesis was formulated as follows:

H_9: the higher environmental risk of companies the lower their financial reporting quality.

The capital market pressure cause the companies with high managerial ownership will chose accounting method that will decrease the financial reporting quality, that actually do not reflect the economic condition of the companies. According to Jensen & Meckling (1976), the managers and shareholder interests can be harmonized if the managers have larger shares. Based on the consideration, the hypothesis as follows:

H_{10}: the larger managerial ownership of companies then the lower its financial reporting quality.

Related with the view that stated institutional investor as sophisticated investors, Cornett, et al. (2006) found that evidences that showed the control action that was done by companies and institution investors restrict the manager behaviors. Cornett, et al. (2006) concluded that control action of companies by institutional investor able to support manager to focus their attention to the loss proportion that will decrease the opportunistic behavior. Based on the consideration, the hypothesis as follows:

H_{11}: the higher institutional ownership of companies then the higher their financial reporting quality.

Market concentration relates positively with financial reporting quality because the company with high industrial concentration tend to select decreasing accounting policies in the future (Nuswantara, 2004). If the companies segments are large so the companies have strong position in competition, the companies will give signal about the better company future. Based on the consideration, the hypothesis as follows:

H_{12}: the higher market concentration of companies then the higher its financial reporting quality.

Big scale auditors tend to disclose the existing problems because they are stronger to face the trial process risk. The argument meant that big scale auditors have more incentive to detect and report the client problems and more possible to detect doubting accounting practices. Because of that, the hypothesis as follows:

H_{13}: the better auditor quality of companies then the higher their financial reporting quality.

The company growth relates with the diversification improvement and directs to long term stability, cause the high economic accrual volatility. According to Gu, et al. (2003) high growth companies managers will use financial report to mark their information about the company growth opportunities in the future. Because of that, the formulated hypothesis as follows:

H_{14}: the higher investment growth of companies the higher their financial reporting.

The third stage testing was testing about the influence of economic consequences toward financial reporting quality in the form of influence analysis between information asymmetry with financial reporting quality of company. Easley & O'Hara (2003) showed that when quality of accounting information in the financial statement improves, then the information asymmetry will decrease. When the financial statement was good quality then information imbalance between management as the information provider with the shareholder and stakeholder as the information user will decrease. Based on the consideration above, then the hypothesis as follows:

H_{15}: the higher financial reporting quality of companies the lower their information asymmetry.

H_{16}: there are influences between financial reporting quality attributes of companies with the information asymmetry.

METHOD

Based on the researched characteristics, the research could be classified in the comparative causal research (Indriantoro & Supomo, 1999)

The research population was all manufacturing companies that listed in Indonesian Stock Exchange (BEI). The samples were 141 companies that selected by purposive sampling during 2001 up to 2006 period. The sample selection procedure is shown in table 1.

Table 1. Sample Selection Process

Information	Number of Company
Go public manufactured companies in Indonesia Stock Exchange (BEI) until December 31st, 2001	323
Not manufactured companies	(142)
Not go public manufactured companies in succession for five years (2001 to 2006)	(41)
Sample	141

Table 2. Operational Definition and Variable Measurement

Variable	Operational definition	Measurement
Operation Cycle (X_1)	Average time period between supply purchasing with cash income that will be received by seller or whole transaction series where a business produce its income and cash income from customer	$\frac{(AR_{it} + AR_{jt-1})/2}{Sales_{it}/360} + \frac{(Inv_{it} + Inv_{jt-1})/2}{COGS_{jt}/360}$ AR_{jt}= Company Account Receivables j year t AR_{jt-1}= Company Account Receivables j year before Inv_{jt}= company inventory j year t $Sales_{jt}$= Company sales j year t $COGS_{jt}$ = Cost of Good Sold of company j year t
Sales Volatility (X_2)	Spread degree of sales or spread index of company sales distrubution	$\frac{\sigma\ (\text{Sales of 5 Year}_{jt})}{\text{Asset Total}_{jt}}$ Sales of 5 $Year_{jt}$= Company Sales j from 2001-2005 Asset $Total_{it}$= Company Asset Total Aset j year t
Firm Size (X_3)	Firm size scale	$\ln \text{Asset Total}$ Asset $Total_{it}$= Company Asset Total Aset j year t
Firm Age (X_4)	Firm operation time	$\text{Observation Year (2006)} - \text{Company born}$
Loss Proportion (X_5)	Company fall indication	$\frac{\text{Amount of years company having negative profit}}{5}$
Liquidity (X_6)	Company capability in short term to fulfill its liabilities when it experiences bankrupty	$\frac{\text{Current Asset}_{jt}}{\text{Current Liability}_{jt}}$ Current $Asset_{jt}$ = Company Current Asset j year t Current $Liability_{it}$= Company Current Liability j year t
Leverage (X_7)	The presence of funding source for operation or investment from external of company	$\frac{\text{Liability Total jt}}{\text{Asset Total jt}}$ Liability $Total_{jt}$ = Company Liability Total j year t Asset $Total_{jt}$= Company Asset Total Aset j year t
Environmental Risk (X_8)	Company business sector	Score 1 for basic industry and chemical classification and other industries are 0
Managerial Ownership (X_9)	The company ownership reflect the managerial ownership at a company	Percentage of shares that owned by management from all outstanding shares.
Institutional Ownership (X_{10})	The company ownership reflect the managerial ownership	Percentage of shares that owned by management from all outstanding shares.
Market Concentration (X_{11})	Market concentration measures relative position of company in supplying goods	$\frac{Sales_{jt}}{\text{Industry Sales}_t} X\ 100$ $Sales_{jt}$ = Company Sales j year t Industry $Sales_t$= Manufactured Industry Sales Total Year t
Auditor Quality (X_{12})	Auditor quality showed the size of the public accountant office	1 for auditor that included in big scale (*Big Four*) and 0 for others

Table 2. Operational Definition and Variable Measurement (Continued)

Variable	Operational definition	Measurement
Investment Growth (X_{13})	Investment growth is combinainof asset in place and invesment selection in future	$\frac{\text{Asset Total}_{jt} - \text{Asset Total}_{jt-1}}{\text{Asset Total}_{jt-1}}$ Asset Total$_{jt}$= Company Asset Total Aset j year t Asset Total$_{jt-1}$= Company Asset Total Aset j year t before
Accrual Quality (Y_{111})	Accrual quality is recognized income when the business unit emerge because of goods delivery to other parties and recognized costs when the liability emerge because of economic source usage in the delivered goods.	$\frac{TA_{jt}}{\text{Asset Total}_{jt}} = \beta_0 + \beta_1 \frac{CFO_{jt-1}}{\text{Asset Total}_{jt}} + \beta_2 \frac{CFO_{jt}}{\text{Asset Total}_{jt}} + \beta_3 \frac{CFO_{jt+1}}{\text{Asset Total}_{jt}} + \beta_4 \frac{\Delta Sales_{jt}}{\text{Asset Total}_{jt}} + \beta_5 \frac{\text{Asset Total}_{jt+1}}{\text{Asset Total}_{jt}} + \beta_6 \frac{\text{Equity Book Value}_{jt+1}}{\text{Equity Market Value}_{jt}} + \varepsilon_{jt}$ TA_{jt}= Net income of company j of current year subtracted by operational cash flow of company j at year CFO_{jt-1}= operational cash flow of company j last year CFO_{jt}= operational cash flow of company j of year t CFO_{jt+1}= operational cash flow of company j of next year Sales= sales differences of company j of year t – last year Asset Total = asset total of j company of year t Equity Book Value = stock price * share amount of company j at year t Equity Market Value = equity total * shares amount of company j at year t
Persistence (Y_{112})	Persistence is condition where the current period is the reflection of future or current periode	Beta of below equation: $\frac{\text{Earnings}_{jt}}{\text{Outstanding Shares}_{jt}} = \beta_0 + \beta_1 \frac{\text{Earnings}_{jt-1}}{\text{Outstanding Shares}_{jt-1}} + \varepsilon_{jt}$ Earnings_{jt} = earning before outstanding items of company j at year t Earnings_{jt-1} = earning before outstanding items of company j last year Oustanding Share = circulating shares of company j at year t
Predictability (Y_{113})	Predictability is current earnings ability in predicting future earnings	Root of square error variance of the model: $\frac{\text{Earnings}_{jt}}{\text{Outstanding Shares}_{jt}} = \beta_0 + \beta_1 \frac{\text{Earnings}_{jt-1}}{\text{Outstanding Shares}_{jt}} + \varepsilon_{jt}$ Earnings_{jt} = earning before outstanding items of company j at year t Earnings_{jt-1} = earning before outstanding items of company j last year Oustanding Share = circulating shares of company j at year t
Smoothness (Y_{114})	Earning smoothness measures the difference among companies in the actual earning variability according to cash flow	$\frac{\sigma(NIBE_{jt})}{\sigma(CFO_{jt})}$ $NIBE_{jt}$= net earnings before outstanding account of company t at year CFO_{jt}= operational cash flow of company j at year t
Relevance Value (Y_{121})	Earnings ability to explain return variation, where the more explanatory power is viewed as desired.	$\text{RET}_{jt} = \beta_0 \text{Earnings}_{jt} + \beta_1 \Delta \text{Earnings}_{jt} + \varepsilon_{jt}$ Adjusted R^2 is obtained from equation $\text{Value Relevance} = -R^2_{jt}$ RET_{jt}= return for 15 months lasted after thee months of fiscal year of company t at year t Earnings_{jt} = return before outstanding items of company j at year t
Timeliness (Y_{122})	Earnings ability to explain return variation, where the more explanatory power is viewed as desired	$\text{Earnings}_{jt} = \beta_{0j} + \beta_1 \text{NEG}_{jt} + \beta_2 \text{RET}_{jt} + \beta_3 \text{NEG}_{jt} * \text{RET}_{jt} + \varepsilon_{jt}$ Adjusted R2 obtained from equation $\text{Timeliness} = -R^2_{jt}$ RET_{jt}= return for 15 months lasted after thee months of fiscal year of company t at year t Earnings_{jt}= return before outstanding items of company j at year t NEG_{jt}= Dummy variable 1 if RET < 1 and 0 for others.

The used data analysis in the research was done in three stages. The first stage was testing, did the financial reporting quality attributes different each other (no overlap) by auxiliary R^2 regression (Gujarati, 2003) and then followed with factorial analysis. The second stage was analyzing the determining factors of financial reporting quality with multiple regressions, and the third stage was testing the financial reporting quality effects in the capital market with simple regression.

RESULT

Descriptive Statistics and Frequency Distribution

Table 3 showed the descriptive statistic results of determining factors of financial reporting quality.

Table 2. Operational Definition and Variable Measurement (Continued)

Variable	Operational definition	Measurement
Conservatism (Y_{123})	Ability to verify the needed differences to prove what is gotten, profit or loss	$BTM_{jt} = \beta + \beta_j + \beta_t + \sum_{k=0}^{6} \beta_k R_{jt-k} + \varepsilon_{jt}$ BTM_{jt}= book ratio toward market value for company j at fiscal year that lasted at t β=Intercept toward all companies and years β_j = fixed bias component of specific company from book ratio toward market value (BTM) during sampling period β_t= book ration component toward market value at certain year for all companies. R_{jt}= share return (not included devidend) for company j year t.
Information Asymmetry (Y_2)	Condition where there is imbalance information between management as the information provider with shareholders and stakeholders as the information users	$SPREAD_{jt} = \beta_0 + \beta_1 PRICE_{jt} + \beta_2 TRANS_{jt} + \beta_3 VAR_{jt} + \beta_4 DEPTH_{jt} + \varepsilon_{jt}$ $SPREADjt = \frac{ask_{jt} - bid_{jt}}{(ask_{jt} + bid_{jt})/2} X100$ Ask_{jt}= highest demand value of company j share at day t Bid_{jt}= lowest demand value of company j share at day t $PRICE_{jt}$ = closing price of company share price every day t in event windows $TRANS_{jt}$= transaction volume of company j shares at day t of each event windows. VAR_{jt}= daily return variance varian during research period of company j at day t Daily return = percentage of shares price change at day t with share price at day before t $DEPTH_{jt}$= share amount average of company i in all quates (available shares amount on demand plus available shres during bid divided by two) during each day t in event windows E_{jt} = *residual error* that is used as SPREAD measure that has been adjusted and used as the information asymetry proxy for company i at day t.
Beta (X_{14})	Systematic risks from each security or portofolio relative toward market risk	Corrective beta of Fowler & Rorke (1983)

Table 3. Descriptive Statistic of Research Variables

Variables	Average	Median	Standard deviation
Operation Cycle (X1)	152,983	131,203	79,550
Sales Volatility (X2)	0,298	0,184	0,349
Firm Size (X3)	13,378	13,247	1,461
Firm Age (X4)	27,043	27,000	12,759
Loss Proportion (X5)	0,308	0,200	0,317
Liquidity (X6)	2,036	1,330	4,529
Leverage (X7)	0,688	0,593	0,508
Managerial Ownership (X9)	3,872	0,032	10,305
Institutional Ownership (X10)	67,999	70,658	19,194
Market Concentration (X11)	0,007	0,002	0,018
Investment Growth (X13)	0,111	0,039	0,459
Beta (X14)	1,057	1,066	0,122
Accrual Quality (Y111)	0,117	0,060	0,220
Persistence (Y112)	-0,043	-0,093	0,728
Predictability (Y113)	4,026	4,069	1,802
Smoothness (Y114)	1,540	0,911	1,912
Relevance Value (Y121)	1,973	1,999	0,307
Timeliness (Y122)	-0,231	-0,831	0,895
Conservatism (Y123)	0,000	1,344	8,235
Financial Reporting Quality Accounting Based (Y11)	0,000	-0,145	1,000
Financial Reporting Quality Market Based (Y12)	0,000	0,144	1,000
Financial Reporting Quality (Y1)	0,000	-0,026	1,000
Information asymmetry (Y2)	9,263	8,924	20,136

Note:

Observation of 141 companies during five years (year 2001 to 2005), all determining variables are average data for five years except for firm age, environmental risk, and auditor quality because the three in the dummy form so the three data only taken at year 2005 only. For variable of financial reporting quality attributes using estimation for five years while for data from financial reporting quality come from factorial score

Testing Results of Financial Reporting Quality Attributes Testing Results of Auxiliary Regression

The testing results of auxiliary regression showed no overlap between the seven proxies of financial reporting qualities variables because the correlation testing among attributes under 0.50 (Francis, et al., 2004). The result showed that hypothesis 1 (H_1) not rejected.

Table 4 showed the results of auxiliary regression of the seven financial reporting quality attributes. From the seven attributes, the persistence attribute and timeliness have the lowest auxiliary R^2, while the others have sufficient auxiliary R^2.

The Testing Results of Confirmatory Factorial Analysis

The detail result of confirmatory factorial analysis in Table 5. The testing results of factorial analysis for the four accounting based financial re-

Table 4. Correlation Matrix among Financial Reporting Quality Attributes

Indicators	Y_{111}	Y_{112}	Y_{113}	Y_{114}	Y_{121}	Y_{122}	Y_{123}	*Auxiliary* R^2		
								Y_{11a}	Y_{12b}	Y_{1c}
Y_{111}	1	-0,023	0,326*	0,247*	0,108	-0,059	0,036	0,133		0,134
Y_{112}	-0,027	1	-0,027	-0,057	0,040	-0,041	0,065	0,003		0,010
Y_{113}	-0,057	0,282*	1	0,282*	0,320*	-0,093	0,092	0,150		0,226
Y_{114}	0,040	0,320*	0,282*	1	0,120	-0,034	-0,060	0,109		0,122
Y_{121}	-0,041	-0,093	0,320*	0,12	1	-0,068	0,394*		0,155	0,242
Y_{122}	0,065	0,092	-0,093	-0,034	-0,068	1	-0,192**		0,037	0,046
Y_{123}	-0,027	0,282*	0,092	-0,060	0,394*	-0,192**	1		0,182	0,169

Note:

* significant 1% ** significant 5%. Y111=accrual quality, Y112=Persistence, Y113=Predictability, Y14=Smoothness, Y121=Relevance value, Y122=Timeliness, Y123= Conservatism, Y11=financial reporting quality accounting based, Y12= financial reporting quality market based, and Y1= financial reporting quality. The correlation matrix use moment product correlation. The correlation showed significant relationship if has statistic r value >r table (r table value at level 5% of 0.159 and level 1% of 0.210, Arikkunto, 2002: 328). From the test, it showed that there is r >0.2110 but no r that more than 0.8, so it is free from multicolinearity among attributes (Gujarati, 2003:360). Sign [a] showed that model value is obtained from auxiliary regression especially for four attributes of accounting based financial reporting quality that is accrual quality, persistence, predictability, and smoothness. As illustration number 0.133 is obtained from regression with dependent accrual quality and independent persistence, predictability, and smoothness, sign [b] showed that the model is obtained based on special auxiliary regression for three market based financial reporting quality, that is relevance, timeliness, and conservatism and sign [c] showed that the model value is obtained based on auxiliary regression for seven financial reporting quality attributes, four accounting based attributes, that is accrual quality, persistence, predictability, and smoothness, and three market based attributes, that is relevance, timeliness, conservatism.

porting quality attributes, there were three financial reporting quality attribute that give contribution for forming the accounting based alternative financial reporting quality that is accrual quality, predictability, smoothness while the persistence attributes give small or weak contribution. The three accounting based financial reporting quality attributes come from two attribute components, that is relevance value, and conservatism, while the timeliness attribute give the smallest contribution. The third variable that is accounting based financial reporting quality and market based financial reporting quality by using second order factorial analysis. Both of them give significant contribution in forming alternative variable of financial reporting quality.

Table 5. Factorial Analysis of Financial Reporting Quality Attributes

1. Accounting Based Financial Reporting Quality Attributes (Y11)				
A. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA)				
KMO	0,618			
Probability	0,000			
B. Anti-image Matrics				
Variabel	Accrual quality	Persistence	Predictability	Smoothness
MSA	0,615	0,633	0,601	0,644
C. Communalities				
Communalities	0,523	0,017	0,563	0,474
D. Eigenvalues for correlation matrix subtraction				
Eigenvalues	1,578	0,997	0,756	0,668
E. Component among variables matrix				
Loading factor	0,723	-0,132	0,750	0,689
2. Market Based Financial Reporting Quality Attributes (Y12)				
A. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA)				
KMO	0,517			
Probability	0,000			
B. Anti-image Matrix				
Variable	Relevance value	Timeliness	Conservatism	
MSA	0,513	0,560	0,511	
C. Communalities				
Communalities	0,581	0,202	0,684	
D. Eigenvalues for correlation matrix subtraction				
Eigenvalues	1,467	0,947	0,586	
E. Component among variables matrix				
Faktor loading	0,762	-0,450	0,827	
3. Atribut Financial Reporting Quality (Y1)				
A. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA)				
KMO	0,500			
Probability	0,039			
B. Anti-image Matrix				
Variable	Accounting Based Financial Reporting Quality		Market Based Financial Reporting Quality	
MSA	0,500		0,500	
C. Communalities				
Communalities	0,587		0,587	
D. Eigenvalues for correlation matrix subtraction				
Eigenvalues	1,174		0,826	
E. Component among variables matrix				
Loading factors	0,766		0,766	

Note:

Factorial analysis use main component analysis method with confirmatory extraction (common factor). Confirmatory factorial analysis is selected because theoretically, the accounting based financial reporting quality consist of accrual quality, persistence, predictability, and smoothness and marketing based financial reporting quality consist of relevance value, timeliness, and conservatism (Francis, *et al.,* 2004)

The research also success in making and investigating alternative attribute of financial reporting quality. The financial reporting quality attribute in the form of financial reporting quality investigation in the form of factorial analysis, that is accounting based factorial reporting quality, market based factorial financial reporting quality, accounting, and market based financial reporting quality.

Table 6. Testing Results of Determining Factors of Financial Reporting Quality

Determining variables	Prediction	Financial Reporting Quality Accounting Based	Financial Reporting Quality Market Based	Financial Reporting Quality
Constant		0,858[a] (1,055)[b] (0,293)[c]	**2,573** **(3,031)** **(0,003*)**	**1,946** **(2,633)** **(0,010**)**
Operation cycle (X_1)	-	**-0,002** **(-2,116)** **(0,036**)**	**-0,003** **(-2,868)** **(0,005*)**	**-0,003** **(-3,399)** **(0,001*)**
Sales volatility (X_2)	-	**-0,439** **(-2,266)** **(0,025**)**	**-0,835** **(-4,121)** **(0,000*)**	**-0,733** **(-4,157)** **(0,000*)**
Firm size (X_3)	-	**-0,145** **(-2,884)** **(0,005*)**	**-0,143** **(-2,721)** **(0,007*)**	**-0,189** **(-4,141)** **(0,000*)**
Firm age (X_4)	-	-0,002 (-0,351) (0,726)	**-0,019** **(-3,539)** **(0,001*)**	**-0,010** **(-2,167)** **(0,032**)**
Loss proportion (X_5)	-	0,266 (1,129) (0,261)	**-0,500** **(-2,032)** **(0,044**)**	-0,079 (-0,367) (0,714)
Liquidity (X_6)	+	-0,008 (-0,524) (0,601)	0,001 (0,067) (0,947)	-0,005 (-0,339) (0,735)
Leverage (X_7)	+	**0,734** **(5,159)** **(0,000*)**	-0,180 (-1,213) (0,227)	**0,556** **(4,301)** **(0,000*)**
Environmental risk (X_8)	-	-0,106 (-0,719) (0,473)	**-0,440** **(-2,862)** **(0,005*)**	**-0,329** **(-2,458)** **(0,015**)**
Managerial ownership (X_9)	-	0,006 (0,723) (0,471)	0,005 (0,578) (0,564)	0,006 (0,929) (0,355)
Institutional ownership (X_{10})	+	**0,011** **(2,708)** **(0,008*)**	**0,012** **(2,957)** **(0,004*)**	**0,014** **(4,028)** **(0,000*)**
Market concentration (X_{11})	+	**15,391** **(3,750)** **(0,000)**	2,593 (0,605) (0,546)	**11,840** **(3,173)** **(0,002*)**
auditor quality (X_{12})	+	**0,302** **(2,075)** **(0,040*)**	0,106 (0,695) (0,488)	**0,311** **(2,347)** **(0,020*)**
Investment growth (X_{13})	+	-0,094 (-0,641) (0,523)	0,112 (0,731) (0,466)	-0,020 (-0,154) (0,878)
F statistic		**8,776[c]** **(0,000*)[d]**	**7,232** **(0,000*)**	**12,663** **(0,000*)**
Adjusted R^2		0,419*	0,367*	0,520

Note:

* significant 1%, ** significant 5%, *** significant 10%

Bold letters showed that the variable influence significantly toward its dependent variables. Sign[a] showed *Unstandardized Coefficients* (Beta), [b] showed statistical t value, and [c] is probability. Sign[c] showed the magnitude of F statistic and sign [d] showed probability

Testing Results of Determining Factors of Financial Reporting Quality

The testing results of determining factors of financial reporting quality are shown in Table 6.

From the thirteen determining factors, it showed nine factors that produced significant influences that are operation cycle, sales volatility, firm size, firm age, loss proportion, leverage, environmental risk, institutional ownership, market concentration, and auditor quality, while the other three, that is liquidity, managerial ownership, and investment growth that were not significant.

The Testing Results of Financial Reporting Quality Economic Consequences

The testing results of financial reporting quality economic consequences showed the influence of the three attributes of financial reporting quality toward information asymmetry, showed negative and significant results (Table 7).

Economic Consequences Models Comparison of Financial Reporting Quality

We can see the economic consequences models comparison of financial reporting quality in table 8.

The J Test results of David-MacKinnon showed that market based financial reporting quality was superior than accounting based financial reporting quality. Accounting based financial reporting quality and market based financial reporting quality were superior than financial reporting quality.

DISCUSSION

The testing results of auxiliary regression showed no overlap between the seven proxies of financial reporting qualities variables. It meant the

persistence attributes and the timeliness has overlap potential with five other financial reporting quality measurements. The testing results agreed with Francis, et al. (2004) but the contribution arrangement in opposition with Francis, et al. (2004) and Pagalung (2006) that produced high auxiliary R^2 for accrual quality.

Table 7. Testing Results of Economic Consequences of Financial Reporting Quality

Determining variables	Prediction	Information Asymmetry (Y2)[a]			Information Asymmetry (Y2)[b]		
		Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Constant		**9,263[c]** **(5,756)[d]** **(0,000)[e]**	**9,263** **(5,604)** **(0,000)**	**9,263** **(5,893)** **(0,000)**	-6,191 (-0,321) (0,749)	5,579 (0,292) (0,771)	-1,401 (-0,075) (0,941)
Y_{11}	-	**-6,544** **(-4,052)** **(0,000*)**			**-4,270** **(-2,258)** **(0,026)**		
Y_{12}	-		**-4,801** **(-2,895)** **(0,004)**			**-4,737** **(-2,985)** **(0,003)**	
Y_1	-			**-7,718** **(-4,893)** **(0,000*)**			**-5,863** **(-3,373)** **(0,001)**
Firm size (X_3)	?				1,829 (1,654) (0,100)	1,756 (1,610) (0,110)	1,536 (1,411) (0,160)
Leverage (X_7)	?				**-7,604** **(-2,085)** **(0,039)**	**-12,013** **(-3,874)** **(0,000)**	**-7,131** **(-2,116)** **(0,036)**
Beta (X_{14})	?				-3,583 (-0,267) (0,790)	-10,924 (-0,839) (0,403)	-4,715 (-0,364) (0,717)
F statistic		**16,418[f]** **(0,000*)[g]**	**8,379** **(0,000*)**	**23,942** **(0,000*)**	**5,900** **(0,000*)**	**6,977** **(0,000*)**	**7,675** **(0,000*)**
Adjusted R^2		0,099*	0,050*	0,141*	0,123*	0,146*	0,160*

Note:

* significant 1%, ** significant 5%, *** significant 10%

Sign [a] showed the model without control variable input, and sign [b] showed the model with control variable input, that is firm size, *leverage*, and beta. Bold letters showed the variables influence significantly toward its dependent variables. Sign [c] showed *unstandardized coefficients* (Beta), [d] showed the value of t statistic, and [e] is probability. Sign [f] showed the size of F statistic and sign [g] showed probability. Data amount (observation) = 141, independent variables amount 1 (without control) and 4 (with control), value of t_{table} = 5% = 1,960, Y11= accounting based financial reporting quality, Y12= market based financial reporting quality, and Y1= financial reporting quality. Symbol? because the variables only occurred in control in the research so it is not expected the influence, positive or negative.

Table 8. Testing Results of J Test Model-Model of Economic Consequences Financial Reporting Quality

Comparison model	Hypotheses	R^2			Conclusions
		Z1	Z2	Differences	
Y11 with Y12	Y11 > Y12	0,076*	0,083*	0,007	Rejected
Y11 with Y1	Y11 > Y1	0,945*	0,251*	0,694	Not Rejected
Y12 with Y1	Y12 > Y1	0,834*	0,251*	0,583	Not Rejected

Note:

*Significant 1% **Significant 5 % ***Significant 10%

Y11= accounting based financial reporting quality, Y12= market based financial reporting quality, dan Y1= financial reporting quality.

Testing results of determining factors of financial reporting quality showed the operation cycle influence toward financial reporting quality showed the negative and significant influence. The company operation cycle will produce lower financial reporting quality because the longer operation cycle will produce uncertainty, estimation and greater estimation mistake that able to produce lower accrual quality. It supported the Dechow & Dichev arguments (2002). Sales volatility variable has negative and significant influences toward financial reporting quality. The high sales volatility indicated an operational environment volatility and high approximation deviation and related with greater estimation mistake, agreed with the Cohen (2003, 2006), Francis, et al. (2004), and Pagalung (2006).

The company size influence toward financial reporting quality showed negative and significant influence. Big companies have stability and operation that can be predicted better that able to cause estimation mistake but they face more political cost than smaller companies, the results supported Gu, et al. (2002), Dechow & Dichev (2002), and Pagalung (2006). The companies age influenced negatively and significantly toward financial reporting quality because the older company will decrease discretion in the financial reporting quality beside that the lower their accrual variability, the results agreed with the Dechow (1994) and Gu, et al. (2002) but not agreed with Pagalung (2006).

The loss proportion influenced negatively and significantly toward financial reporting quality because if the company get loss, it showed that the companies do not grow and not sustainable so will face difficulties in their operation. The results agreed with Dechow & Dichev (2002), Cohen (2006). Liquidity did not influence toward financial reporting quality because the liquidity magnitude did not move along with the financial reporting quality. The results did not agree with Pagalung (2006). Leverage influenced positively and significantly to the financial reporting quality because the high leverage give stronger incentive for manager to manage earning in accepted procedure. The results supported the previous findings Gu, et al. (2002), Cohen (2002), Cohen (2003, 2006), Pagalung (2006).

The environmental risk showed negative results and significant toward financial reporting quality, it showed the more companies included in basic industry and chemical, the lower financial reporting quality. The results agreed with Cohen findings (2003, 2006), and Pagalung (2006). The determining factors of managerial ownership showed insignificant influence toward financial reporting quality because the low managerial ownership. The results contradicted with Cohen (2003, 2006). With low percentage, the manager ability to control company was also weak. The institutional ownership showed positive and significant influence toward financial reporting quality because institutional investors have ability to monitor the management actions. The results of this research equal to Cornet, et al. (2006). The marker concentration showed positive and significant results toward financial reporting quality because if the market segments of companies were large, the companies will be strong in competition so the companies will give signal about the better future. The results supported Cohen (2003, 2006). The auditor quality influenced positively and significantly toward financial reporting quality because the auditor credibility has important role in forming financial reporting quality. The investment growth showed insignificant influence toward financial reporting quality because there was managers that communicated private information that has relevance value by managing the earning of high investment company because they seems have private information that have relevance value but some also hid the information so produced the information asymmetry. It did not support Gu, et al. (2002), and Cohen (2003, 2004)

The results showed negative influence of financial reporting quality toward information asymmetry. The results also showed findings that supported the economic theory that stated, ceteris paribus, the financial reporting quality improve-

ment will decrease information asymmetry and then decrease the cost equity (Easley & O'Hara, 2003; Cohen, 2003, 2006, and Pagalung, 2006). It meant that, when the financial statement when the financial report in good quality, information imbalance between management as the information provider and shareholder and stakeholder as the information user will decrease. Companies able to decrease information asymmetry between company interest with informed investors and non informed investors by giving information that help investor in decision making process. The research success in giving empirical evidences that financial reporting quality has economic consequences to capital market and it is proven that valuation of clean surplus theory that showed that the company market value is reflected in the financial statement component (Feltham & Ohlson's 1995).

The J Test results of David-MacKinnon showed that market based financial reporting quality was superior than accounting based financial reporting quality. It is caused by the management action to influence relevance value, timeliness, conservatism (market based financial reporting quality attributes) is high (there is big effect) if compared with the inherent factors effect.

CONCLUSION AND SUGGESTION

Conclusion

Below are some conclusions that based on above research goals and the hypothesis testing that explained in previous chapters. While the research conclusion the auxiliary R^2 regression testing among the four attributes of accounting based financial reporting quality, that is accrual quality, persistence, predictability, and smoothness and the three attributes of market based financial reporting quality model, that is relevance value, timelines, conservatism showed no overlap among the seven attributes. The factorial analysis testing results of the four accounting based financial reporting quality attributes gave contribution to the alternative forming of accounting based financial reporting quality that is accrual quality, predictability, and smoothness, while the persistence attributes give small or weak contribution. The three market based financial reporting quality attributes come from two attributes components, that is relevance value, and conservatism, while timeliness attribute gave small or weak contribution. The third variable, its formation come from two variable components, that is accounting based financial reporting quality and market based financial reporting quality by using second order factorial analysis. Both had significant contribution in forming alternative variable of financial reporting quality.

The testing results of determining factors of financial reporting quality showed that the thirteen determining factors under researched, showed that nine variables produced significant influence that is operation cycle, sales volatility, firm size, firm age, loss proportion, leverage, environmental risk, institutional ownership, market concentration, and auditor quality, while the three other variables that is liquidity, managerial ownership, and investment growth did not produce significant influence.

The testing results of financial reporting quality showed that factorial financial reporting quality influenced negatively and significantly toward information asymmetry. It meant that when the financial report was high quality then the imbalance information between management as information provider and shareholders and stakeholders in general as the information user will decrease, 4) the results of Davidson MacKinon J test showed that market based financial reporting quality was superior than accounting based financial reporting quality, accounting based and market based financial reporting quality were superior than financial reporting quality.

Suggestions

The research limitations were (1) the researcher difficult to determine the measurement

at each variable because many measurement method for one variable. Further research need to test first which models that is most appropriate and robust for Indonesian conditions in selecting variables. The research measuring and selecting variables based on (a) data are obtainable, (b) the measurement is most complex, c) the variable measurement often be used by previous researcher, (2) the research samples were manufacturing companies by purposive sampling method and during crisis recovery or during the research, there were companies that conducted business restructuring and some companies were holding companies. The further researches can be developed by introducing business investigation variables of holding companies, and companies that conduct businesses restructuring. (3) the research tested separately by confirmatory factorial analysis and simple regression and also multiple regression. The impacts of separated testing caused many similarities and conducted testing recurrently for different dependent variable. The further research can be done simultaneously by considering error at each indicator so the accounting decision making will be more accurate.

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