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# THE EFFECTS OF FINANCIAL REPORTING QUALITY ON INFORMATION ASYMMETRY AND ITS IMPACTS ON INVESTMENT EFFICIENCY

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## **Abstract**

Financial reporting is the primary means of communicating financial information to external parties, which are used as a basis for decision making. Financial statement information will have a utility value if obtained from quality financial reporting. Understanding the quality of financial reporting can be viewed in two perspectives. The first view states that the quality of financial reporting related to the company's overall performance is illustrated in corporate profits. Associated with the quality of which measures are focused on attributes that are believed to affect FRQ such as earnings management, financial restatements, and timeliness. The second view states that the quality of financial reporting related to the performance of the company's shares in the capital market. Which is getting stronger relationship between income in exchange markets shows that financial reporting information is getting higher. With the quality of financial reporting it can protect investors in terms of investment and investment decisions. It becomes critical because the investment has risk. Based on previous studies have found an association between the quality of financial reporting with the efficiency of investment, this relationship occurs because of the quality of financial reporting will produce quality information. This research was conducted at 22 pension fund companies in Indonesia in 2012. These results indicate that: the quality of financial reporting did not affect the asymmetric information, and asymmetric information does not affect the efficiency of investment

Keywords: Quality of financial reporting, asymmetric information, investment efficiency, quality information, performance of firm

## INTRODUCTION

The essence of investment is the placement of some funds at this time hoping to generate profits in the future (Jones 2004: 3) Stock Investment is one type of the risky investment, therefore information is an important factor in stock investment as the basis for determining investment choices. Investment mistakes can cause a risk of loss, which would have an impact on the pension fund's inability to pay pension benefits to its clients and this means that the goals and efficiency of the investment are not achieved.

In fact there are many other problems correlated with the investments by business organizations (Bahrullah Akbar, 2013; Shantanu Lant, 2014; Beni Sindhunata, 2010). One of the problems associated with the investment inefficiency in State-Owned Enterprises (SOEs), in which the management of SOEs is required to improve its efficiency in its business development either technology efficiency, allocation efficiency, or its total efficiency because its efficiency level on capital expenditure or investments are not considered satisfying . This case happened to PT.PLN (state-power company) which has an efficiency of about IDR 37 trillion. (Bahrullah Akbar, 2013).

The other problem associated with the investment inefficiency in mining companies where on May 26, 2014 PT Renuka Coalindo (Co.Ltd) had made an investment by buying 90% stocks of PT. Global Surya Makmur in order to support their performance, but apparently PT Renuka Coalindo suffered from declined revenue about 149.28% year on year into US\$ 2.88 million during the first half after the acquisition, whereas in the previous year their net income was US \$ 7.18 million (ShantanuvLant, 2014).

There also investment inefficiencies problems in banking companies. In the consortium of Sorak Financial Holding invested 51.5% stocks of Bank International Indonesia (BII) and two years later, BII's profit doubled to over IDR 100 million per capita. Five years later, after profit acquisition BII's profit decreased to 63.1 million per capita and in 2009, it suffered the deficit of IDR 5.7 per capita. (Beni Sindhunata, 2010).

In November 2004 Standard Chartered Bank and Astra International invested 51% stock ownership of Permata Bank but the net profit of Permata bank declined from IDR 100.1 million per capita in 2004 into IDR 93.2 million per capita (2009) (Beni Sindhunata, 2010).

The case of failure investment should be a concern for pension funds because investment is a main component in holding pension funds where most of pension funds are allocated to investments. Under the terms of investment, there are 19 types of investment s that can be chosen by pension funds. By the end of December 2010, the number of pension fund investment was (IDR125.68 trillion), or equivalent to 96.42%. (Pension Fund reporting statement in 2011)

The investments are closely related to financial reporting process. Financial misstatements or a low quality financial statement, such as hiding actual performance in a certain period, will cause information asymmetry.

Information asymmetry is a condition where a party has information that is unknown by other parties so that some specific consequences will only be known by one party where the other parties do not have such information they need (Nuryatno et.al. 2007). This can cause a different perception between the party who provides information and a party who receives the information (Salehi & Rostami; 2008). Connelly (2011), explains that the information asymmetry will occur when "different people know different things", so that the information asymmetry can trigger an unbalanced economic situation.

Information asymmetry occurs when one or more parties involved in a transaction process receive trustable or more information compared to other parties that are also involved in the transaction process. For example, each manufacturer (producer) knows more or has better information about the quality of its products than its consumers.

One way to reduce information asymmetry is by providing a quality financial reporting statement (Ma Tao, 2012). These results are consistent with the theory that high quality public disclosure of information can reduce the uninformed (foreign) investors' information disadvantage relative to the informed (local) investors and reduce the cost of equity. Given that information asymmetry between domestic and foreign investors can deter foreign investment, my results suggest providing high quality accounting information can facilitate foreign investment (Ma Tao, 2012).

A quality financial reporting with reliable financial information also influences the efficiency of investment through the availability of information which is more symmetrical between managers and shareholders (Li & Wang, 2010; 199). Financial reporting is the collection and presentation of historical and up-to-date financial information of a company (Drake &Fabozzi, 2012: 4). Financial reporting is the reporting of financial information on how a company's business is organized (Drake &Dingler, 2001: 165). Financial reporting is a transaction between two parties, where one party will be the reports publisher which control the preparation (designing) and provision of the reports for the other party, which is the report's user which use it to improve their financial decision that is correlated with the whole entity of the party who repots it.

Quality financial information is important information in making investment decisions. To maximize its benefit, financial reporting needs to meet the characteristics as a quality financial report. Although the benefit of a financial report requires quality, research results show the fact that financial reports are not always of good quality. These lead to doubt in financial report quality.

In Indonesia, there are still many problems related to financial reporting both in business organizations (Hoesen, 2014; Johannes Soetikno, 2014; Ito Warsito, 2012; Andre Toelle, 2012; Yunus Husein, 2011; M.Yuliadi, 2014) and non-business (non-profit) organizations (Tjahyo Kumolo, 2014; Bambang Pamungkas, 2014; Nelson Ambarita, 2013; Ridwan 2011; Agung Firman Sampurna, 2013; Rizal Djalil, 2012; Ratih Dewi Puspita, 2012; Sidik Ilyas, 2013).

In non-profit organizations (government agencies), according to complaints made by the Supreme Audit Agency (BPK) and the Corruption Eradication Commission (KPK), only 23% of local governments in Indonesia orderly report their financial accountability, and 77% of the government agencies have become a problem to investigate (Tjahyo Kumolo, 2014).

The problems of financial reporting also happen in business institutions where there are three companies listed in the Indonesia Stock Exchange which their annual financial statements received qualified opinion. They are PT GozcoPlantitaionsTbk, PT DavomasAbadiTbk, and PT SLJ Global Tbk, and one company (PT Adimina Samudra TBK) received disclaimer from the auditors and received written warning memo from Indonesia Stock Exchange (Hoesen, 2014). The Indonesia Stock Exchange also conducted an investigation audit on the inaccurate information indicated in financial performance reported by the company. (Johannes Soetikno, 2014).

Bad quality financial reporting causes the financial reporting by the companies were not submitted on time to Indonesia stock exchange and it becomes a bad precedent for the Indonesia stock exchange in which there were five companies did not report their financial statement in 2011 and the Indonesia Stock Exchange had to suspend these five companies share trading. They were Buana Listya Tama Tbk ,PT.Davomas AbadiTbk, PT Mitra International Resources Tbk, PT Panca Wiratama Sakti Tbk, and PT Truba Alam Manunggal Engineering Tbk (Ito Warsito, 2012).

In the interim financial statements ended March 31, 2012, the same problem happened. There were six companies were late in submitting their financial report. They were PT.Buana Listya Tama, PT. Dayaindo Resources International Tbk, PT Mitra International Resources Tbk, PT Panca Wiratama Sakti Tbk, and PT Truba Alam Manunggal Engineering Tbk (Ito Warsito, 2012).

Hedi Van Bauwhede (2001), studied factors that influence the quality of financial reporting. They are: management decisions, quality of external and internal governance mechanism, and financial reporting rules. Ferdy (2009), conducted an assessment on 231

annual reports of the companies listed on the American Stock Exchange, Britain Stock exchange and the Netherlands Stock Exchange; The study shows that the qualitative characteristics of financial statements have proved to be a measuring tool and can improve the quality of financial information. The difference between the quality of financial reporting between US - GAAP and IFRS is significant.

Based on previous study by Rudy (2009), there is no significant influence of when pension funds invest; the boards need some information from a quality financial report which will help them in making investment decisions. Earning Quality cannot be used as the only tool to analyze because the Earning Quality measurement is often different from one company to other companies and even from one country to other countries. (Abelghany, 2005).

Natalia Christanti et al; 2011 has stated that most investors will conduct research before making an investment decision. An investor will study a company's financial report, company's performance, track record or portfolio, economic condition., risks, financial review, economic condition published by press media and other research to have a confident that the investments will give them additional wealth (profit).

## HYPOTHESIS DEVELOPMENT

# The Effect of Financial Reporting Quality based on Market -based Attribute Accounting -**Base Attribute on Information Asymmetry**

Biddle et al. (2009: 113) defines the quality of financial reporting as the precision with which financial reporting conveys information about the firm's operations, in particular its expected cash flows inform that equity investors. Yoo et al. (2013: 1738) gives a similar definition that the quality of financial reporting is the degree to which financial reporting conveys precise information about a firm's operation.

Tasios & Bekiaris (2012: 59) have explained that the concept of financial reporting quality is broad and includes financial information, disclosures and non-financial information useful for decision making. Certain financial reporting required to meet the qualitative criteria in order to avoid poor quality and Accomplish Reviews their purpose (Tasios & Bekiaris, 2012: 59).

One of the objectives of financial reporting is it works as a major means of financial information communication to external parties of a company which is used as a basis for decision making of the users (external parties). Financial statement information will have a utility value if it is based on quality financial reporting.

Quality financial reporting can be viewed from various aspects, because it is a function of various components and can be viewed from various perspectives. The meaning of financial reporting quality can be viewed in two perspectives. The first perspective suggests that financial reporting quality correlates with whole performance of one company that can be seen from the company's profit. Associated with the quality, the measurement is focused on the attributes that are believed to effect FRQ such as earnings management, financial statements, and timeliness (eg Barth et al., 2008; Schipper& Vincent, 2003; Cohen et al., 2004).

The second perspective suggests that financial reporting quality is closely related to one company's stake performance in stock exchange. A stronger correlation between profit and market interest indicates a higher quality of financial reporting. (Lev and Thiagarajan, 1993).

Research on the quality of financial reporting often uses two approaches which are; internal approach, as an example, the intrinsic factors of one company, or through an external approach which is a response from the users of financial reporting information on to what extent financial reporting information is responded by the users. Quality Financial reporting information can increase the confidence of investors (Gul et al., 2003; Francis etal., 2004, 2005; and Fanani, 2006). The second approach focuses the research on external factors, namely the response of investors on financial reporting information. One of the stakeholders associated with the quality of financial reporting is the investor who has financial information that can reduce information asymmetry.

Quality financial reporting will protect investors who invest and who make investment decisions. This is important because investment has risks. Based on previous studies, there is a relation between financial reporting quality and investment efficiency; this can happen because financial reporting quality will provide quality information. This can decrease information asymmetry.

Based on the framework above, the hypothesis is as follows;

H1. There is a significant effect of financial reporting quality on Information Asymmetry.

# Effect of Information Asymmetry on Investment Efficiency.

Based on the opinions of the experts (Velasquez, 2012: 15; Boatright, 2012: 253; Peil & Van Staveren, 2009: 107; Reider 2002: 24; Anthony & Govindarajan, 2007: 130; Simons, 2000: 110) efficiency can be regarded as a measure of success that is judged in terms of the amount of resources / costs / inputs to achieve the results of the activities undertaken.

Jones (2014: 3) defines investment as the commitment of funds to one or more assets that will be held over some future time period .Bodie et al. (2014: 5) gives the definition of investment as the current commitment of money or other resources in the expectation of future benefits Reaping.

Brown & Reilly (2009: 4) defines investment as the current commitment of dollars for a period of time in order to derive the future payments that will compensate the investor for: (1) the time the funds are committed, (2) the expected rate of inflation, and (3) the uncertainty of the future payments. Rose & Marquis (2006: 6) describes the investment as the acquisition of capital goods, such as buildings and equipment, and the purchase of inventories of raw materials and goods to sell.

Based on these opinions, (Jones, 2014: 3; Bodieet al., 2014: 5; Brown & Reilly, 2009: 4; Rose & Marquis, 2006: 6), investment is a current (definite) value commitment (sacrifice) to obtain the future value (which may be uncertain).

With reference to the experts' opinion on efficiency and investment, the efficiency of investment referred to in this study is the precision of investment needs based on the available opportunities to meet an optimal investment, which is the function of Revenue Growth in the increase of future cash flow and additional wealth (Biddle et.al, 2009).

# **RESEARCH METHODOLOGY**

This study adapts casual associative method. This method is applied to find out the correlation /relation between variables of the study. (Sekaran; 2009); (Kunjoro; 2010). The relevant information about the variables and measurement are described in the following table

Table 1. Variables and measurement

Variables	Sub Variables	Concept	Indicators	
	Market -based	Value relevance is	Value Relevance.	
Quality of	Financial reporting	accounting information	The formula to calculate value as follows:	
Financial	quality) (X1)	that is useful for investors	Value Relevance = - jt Adjusted R <sup>2</sup>	
reporting	The quality of	to estimate expected	obtained from the following equation:	
(X=Kpk)	reporting can be	value based on the	RETjt = $\beta$ 0 + $\beta$ 1 <i>Earnings</i> jt + $\beta$ 2	
	measured by	comparison between the	Δ <i>Earnings</i> jt + εjt	
	linking the market	level of risk and return.	Description:	
	response which its		RETjt =	
	approach based on		Average return for 15 months  Earningsjt = Net profit before	
	accounting and			
	market data		company's exceptional items) year-t	
		Timelines for the decision	Timelines	
		maker before the	Timelines = Dummy variable,	
		information lost its power	one (1) if the annual report is submitted	
		in influencing the decision	before the audit delay on 30 April each	

before the information. year, and zero (0) after the 30th of April. According to Belkaoui (2006), to communicate information earlier to avoid any delay or being late in making economic decision. Conservatism is a Conservatism with net assets measure principle in financial (Beaver 2000) reporting that is intended Con = Market Value to recognize and measure **Book Value** Where: assets and profit carefully because the uncertain Market Value: economic and business Closing price of a stock on the date it's activities announced. Book Value: Equity value on the date of balance sheet Accounting -Based **Quality of Financial Discresionary Accruals** Financial reporting Reporting can be  $TAC_t / TA_{t-1} = \alpha_1 (1 / TA_{t-1}) + \alpha_2 (\triangle Sales_t)$ Quality (Kpk) (X2) measured through  $/TA_{t-1}) + \alpha_3 (PPE_t / TA_{t-1})$ Where: accounting approach associated with the TAC<sub>t</sub>: Total accruals of one company in tproperties of the period accounting reporting TA<sub>t-1</sub>: Total assets of one company in period t-1  $\Delta$ Sales<sub>t</sub>: The change in net sales of one company in t-period PPE₁: Fixed assets of one company in t-period  $\alpha_1 \alpha_2 \alpha_3$ : one company's certain parameter in t-period NDTAC<sub>t</sub> =  $\alpha_1$  (1 / TA<sub>t-1</sub>) +  $\alpha_2$  ( $\triangle$ Sales<sub>t</sub> -  $\triangle$ R  $/TA_{t-1} + \alpha_3 (PPE_t / TA_{t-1})$ Where: NDTAC<sub>t</sub>: Non-Discretionary Accruals of a company in t-period

 $TA_{t-1}$ 

Total assets of company t period -1

 $\Delta$ Sales<sub>t</sub>:

The change in net sales of one company

in t-period

∆REC₊ : The change in net accounts of

one company in t-period

PPE<sub>↑</sub> : Fixed assets of one company

in t-period  $\alpha_1 \alpha_2 \alpha_3$  :

A company's certain parameters in t -

period.

 $DTAC_t = TAC_t / TA_{t-1} - NDTAC_t$ 

In which::

DTACt : Discretionary accruals Of a

company in t-period

TAC<sub>t</sub> / TA<sub>t-1</sub>: *Total accruals* Of a company

in t-period

NDTAC<sub>t</sub>: Non-discretionary accruals Of a

company in t-period.

# **Population & Sample**

The sample of this research is 22 pension funds (of Employer Defined Benefit Program) in West Java. Based on the annual report data of the Pension Funds in 2012:

The numbers of employer pension funds with defined benefits program

22

The number of pension funds that do not complete financial statements

9

Total pension funds as study sample

13

# **Proposed Research model**

Quality of Financial reporting (Kpk) =  $\alpha 0 + \beta_1$  Kpk market+ $\beta_2$  Kpk Accounting +  $\epsilon_1$ t....(1)

Description:

= Quality of financial reporting Kpk

= Constanta Constant α0

= Regression Coefficient β

= Error εjt

= market-based financial reporting quality through value relevance, timelines and Kpk market

conservatism proxies

Kpk Ac = Accounting-based financial reporting quality that is provided by discretionary accruals

Information Asymmetric is provided using Bid Ask Spread

Asym =  $\alpha 0 + \beta 3$ .Kpk +  $\epsilon$ jt....(2)

Description:

Asym = Information Asymmetric

α0 = Constant

β.Kpk = Regression coefficient of financial reporting quality

 $\varepsilon$ jt = Other influencing factors

Investment Efficiency is provided with the increase in net assets of pension funds

Z (Eff In)  $= \alpha 0 + \beta 4.$ Asym  $+ \epsilon jt$ ....(3)

Description:

Eff In = Investment efficiency

 $\alpha 0$ = Constant

β.Asym = regression coefficient of information asymmetric

 $\varepsilon$ jt = Other influencing factors

#### **ANALYSIS AND FINDINGS**

To determine the value of Kpk market that covers value relevance, timelines and conservatism, and Kpk accounting that is viewed from Discretionary Accruals in making quality financial reporting (Kpk), principal component analysis –PCA is conducted.

Based on the calculations, the value of each Kpk attributes is as follows; of weights for each attribute Kpk as follows:

Variance Contributions

Variance Contributions

PC\_1

RELEVANCE 0.021 PUNCTUALITY 0.002 CONSERVA 1.000 DISCRETI 0.322

Quality of Financial Reporting (Kpk) = 0.021 Relevance value + 0.002 timelines + 1.0 Conservatism + 0322 Discretionary Accruals. From the value of each component the highest value (1.000), on the second place is Discretionary Accruals as the measurement of the



financial reporting quality (Kpk) Accounting (0.322), followed Relevance value (0.021) and timelines (0.002).

# **Hypotheses Testing**

To determine the effects of information asymmetric on investment efficiency, regression coefficient testing is conducted using t test statistic.

The result of t-count is 1.263 with its significance value (p-value) = 0.229. t-count value is between positive and negative values . t-table (-  $t_{table} = -1.771 < t_{count} = 1,263 < t_{table} = 1,771$ ). The test decision is that H0 accepted. The above conclusion is also supported by the significance value (0.229) which is higher than the value of  $\alpha$  = 0.05. This means that an error in making a statement that there is significant effect is about 22.95 or higher that error level that is determined (5%) ( $\alpha$  = 0.05) so that the decision of the test is not to reject H0 (H0 accepted). The testing result can be concluded with the trust level at 95% that there is no effect of information asymmetric on investment efficiency.

From the calculation of determination value (R<sup>2)</sup>, the effect of information asymmetric on investment efficiency is 0.109 (10.9%).

Table 2. Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R	Std. Error of the
			Square	Estimate
1	.331ª	.109	.041	3361288158093
				.62450000

a. Predictors: (Constant), Information Asymmetry (Y)

## **CONCLUSION AND SUGGESTIONS**

This study intended to examine the effects of financial reporting quality on information asymmetry and its impacts on investment efficiency. Based on the empirical results, study forward some conclusions as follows: The value of determination (R2) obtained a value of 0.003 (0.3%), t-count value obtained at -0285 with a significance value (p-value) = 0.778, which means the quality of financial reporting has no effect on information asymmetry. Further, while the asymmetry of information does not affect the efficiency of investment as a result the value of the determinant (R2) of 0.109 (10.9%) with a value of 1,263 t-test with a significance value (pvalue) = 0.229. Based on the conclusions, the suggestions can be given as follows: The research on financial reporting quality in commercial enterprises such as banking,

b. Dependent Variable: Investment Efficiency(Z)

insurance, manufacturing. Also, Net present value (NPV) is an important indicator of efficiency of investment so it is advisable to include such indicators.

## **REFERENCES**

Ahmed, A.S. et.al. 2002. The Role of Accounting Conservatism in Mitigating Bondholder-Shareholder Conflicts over Dividend Policy and in Reducing Debt Costs, The Accounting Review.77:867-890.

BPK: BUMN Bahrullah Akbar. 2013. Belum Efisien dalam Melalui Investasi. http://m.bisnis.com/finansial/read/20131031/9/183990/bpk-bumn-belum-efisien-dalam-investasi (15/10/14).

Shantanu Lant. 2014. Akuisisi Diharap Bisa Dongkrak Kinerja. Melalui http://investasi.kontan.co.id/news/akuisisi-diharap-bisa-dongkrak-kinerja (15/10/14)

Sindhunata. 2010. Akuisisi Asina Bukan Jaminan. Melalui http://www.infobanknews.com/2010/08/akuisisi-asing-bukan-jaminan/ (15/10/14).

Biddle, G., Hilary, G and Verdi, R.S. 2009. How does Financial reporting quality relate to Investment efficiency? Journal of Accounting and Economics, Vol. 31, pp. 237-333.

Branislav Mari, Jelena iri, Vladimir Mitrovi and Mihailo Rovanin.(2011).Functional correlations between the efficiency indicators of investments

Daniel A. Cohen. 2003. Quality of Financial Reporting Choice: Determinants and Economic Consequences

Dechow, P., Ge, W. and Schrand, C. (2010) . Understanding earning quality :a review of the proxies, their determinants and their consequences", Journal of Accounting and Economics."

Cohen, Daniel A. 2003. Quality of Financial Reporting Choice: Determinants and Economic Consequences

Francis, J.R., et.al. 2004. Cost of Equity and Earnings Attributes, The Accounting Review. 79:967-1010.

Feng Chen, Ole-Kristian Hope, Qingyuan Li, Xin Wang. 2010. Financial Reporting Quality and Investment Efficiency of Private Firms in Emerging Markets.

Glenn P. Jenkins, Chun-Yan Kuo, Arnold C. Harberger. 2011. Cost-Benefit Analisis For Investment Decisions.

Jones, C.P. 2004. Investment Analysis and Management. Copyright @ 2004 John & Wiley Sons, Inc.All rights reserved.

Karthik Balakrishnan. 2011 Credit Supply Shocks, Financial Reporting Quality and Investments: Evidence from the Subprime Mortgage Credit Crisis.

Karthik balakrishan, John E Core, Rodrigo S Verdi. 2011. Does Financial Reporting Quality Affect Firm-Level Investment? Evidence from Shock To Collateral Values.

Lucy Jepchoge Rono. 2009. An Evaluation Of Factors Influencing Pension Managers Investment Decisions In Kenya. Volume 8, Number 10. Internasional Business & Economics Research Journal.

Ma Tao. 2012. Financial Reporting Quality and Information Asymmetry: Evidence from the Chinese Stock Market. Second round review at The Accounting Review

Nuryatno, Muhammad. Nazir, Nazmel. Rahmayanti, Maya. 2007. Hubungan antara pengungkapan informasi asimetri dan biaya modal. Jurnal Informasi Perpajakan, Akuntansi dan Keuangan Publik. Vol 2 no. 1 hsl 09-26

Ole-Kristian Hope Wayne B. Thomas Dushyantkumar Vyas. 2011. Financial Reporting Quality in U.S. Private Firms. Rotman School of Management University of Toronto

Qingyuan Li and Tielin Wang. 2010. Financial reporting quality and corporate investment efficiency: Chinese experience.



Rudy A. Jacob and Christian N. Madu. 2009. International financial reporting standards: an indicator of high quality? International Journal of Quality & Reliability Management Vol. 26 No. 7, 2009 pp. 712-722 q **Emerald Group Publishing Limited** 

Scott, W.R. 2003. Financial Accounting Theory, 3 rd edition, Prentice Hall

T. M. Hodgson, S. Breban, C. L. Ford, M. P. Streatfield and R. C. Urwin. 2000. The Concept Of Investment Efficiency And Its Application To Investment Management Structure.

Zarah Puspitaningtyas. 2007. Pemanfaatan Informasi Akuntansi Bagi Investor Dalam Proses Pengambilan Keputusan Investasi.