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Value Relevance of Financial and Non-Financial Information to Investor Decision

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A B S T R A C T

The objective of this study is to examine the value relevance of financial and non-financial information to investor decision. Investors determine investment decisions from financial and non-financial information. In this research investor decision reflected on company's market performance, market performance is measured using Cumulative Abnormal Return (CAR). Financial information is measured using Return on Assets (ROA) and non-financial information using three components of Balanced Scorecard Method, which reflect, customer perspective, internal business process perspective, and learning and growth perspective. This study uses multiple regression to analyze the data of 121 manufacturing companies listed on Indonesia Stock Exchange (IDX) for the period 2010-2012. Sampling method in this research is conducted by the purposive sampling method.
The findings show that the financial information which is measured by using the Return on Assets (ROA) was positively related to the market performance. On the other, from three components consist in non-financial information, customer perspective and internal busines and learning growth that has relation with market performance. Finally the results fully confirm the existence of a relationship between financial and non-financial information on market performance.

Keywords: Cumulative Abnormal Return; Return on Assets; Customer Perspective; Internal Business Perspective; Learning and Growth Perspective

Ⅰ. Introduction

In today's market, the changes in the business world from the industrial era into the information era are influenced by economic growth and technological advancement. Technological advancements can be used to obtain the information for the company to strengthen their market position.

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On the contrary, information of company's activities can be useful information to the other parties (e.g. regulators, competitors).

Company's information was being able to effecting investor's and stakeholders decision-making processes. Chiung and Ming (2005) suggested that investment decision affect the company's market performance through stock price. Chiung and Ming (2005) suggested that investment decisions affect market performance through stock price. Then, the stock price changes reflect changes in the rate of expected returns or the rate of potential risks (Riley, Pearson and Trompeter, 2003; Wiersma,

2008). Financial and non-financial information obtained from the company's annual report. The information presented in the annual report of the company aims to provide the necessary data to stakeholders, to assess the performance of the company in the investment decision-making process (Hoque, 2005).

Information that is fast, accurate, timely and relevant, is urgently needed, so the way to analyze historical-based financial information became less relevant for assessing the company's performance (Peak and Dai, 2011). This shows the importance of company's performance measurement that is more comprehensive, including non-financial measurement. Coram, Mock and Monroe (2011) suggests that analysts use non-financial information in investment decision making and judgments process.

A recent empirical study has shown empirical evidence of the value relevance of financial and no-financial information (Riley, et al. 2003; Dontoh, Radhakrishnan and Ronen, 2004; Habib, 2004; Chiung and Ming, 2005; Ghosh and Wu, 2006; Enalby, Mohammad and Said, 2008; Wiersma, 2008; Gonzales, Pradhan and Malsonado, 2011; Al-Momani and Al-shboul, 2013). However, the result of recent studies evidence is inconsistent. Some studies has shown that there is significant value relevance (Riley *et al.* 2003; Chiung and Ming, 2005; Ghosh and Wu, 2006). Habib (2004) indicated that value relevance of financial information has negative relationship with earning management. Meanwhile, Dontoh Radhakrishnan and Ronen (2004) found that the decreased value relevance of financial information on stock prices.

The studies on the value relevance of non-financial information also show inconsistent results. Chiung and Ming (2005), Ghosh and Wu (2006), Gonzales, Pradhan and Malsonado (2011), Al-Momani and Al-shboul (2013) shown that there is value relevance of non-financial information in relation to the predictability of firm failure, and it was related positively to company performance and financial performance. Riley, *et al.* (2003) and Enalby, *et al.* (2008) found that non-financial information is related positively to profit management. Meanwhile Wiersma (2008) concluded that non-financial performance does not have better value relevance compared with the company's financial performance.

The research on the value relevance of financial information in Indonesia proves that financial information has value relevance to the increasing stock price and there was no difference of value relevance between the companies adopting and not adopting IFRS (Cahyonowati and Ratmono, 2012; Puspitaningtyas, 2012; Andriantomo and Yudianti, 2013). Meanwhile, the studies on the relevance of non-financial information in Indonesia shown inconsistent result. Astuti and Syahyunan (2013) shown that non-financial information has value relevance to the company performance. Whereas, Wondabio (2007) focusing on cost of equity suggested that non-financial information has negative significant value relevance to cost of equity.

Based on previous studies, the author wants to explore further the value relevance of financial and non-financial information. While financial information has ever been questioned for its relevance (Dontoh, et al, 2004), it has been proved that financial information is still relevant for the investors to make decision. Meanwhile, Kaplan and Norton (1992) introduced *Balanced Scorecard* (BSC). BSC is a method to assess the company performance using both financial and non-financial measure concurrently. The measurement of non-financial performance, including consumer satisfaction, product innovation, company and employee development, will provide more comprehensive information to investors. Analysts tend to pay more attention to company category using BSC than that not using BSC (Cardinaels and Dirks, 2010). The component of BSC is an elaboration of the company's long term strategy and mission. Thus, assessing a variety of BSC components can represent the upcoming condition and the company's ability in maintaining their sustainability. It indicates that both financial and non-financial information are required by the investor to make investment decision.

A recent study so far has not found many evidences about the value relevance of financial and non-financial information to investor decision. Some studies have tried to examine the relevance of financial and non-financial information (Ghosh and Wu, 2012; Coram, *et al.*, 2011; Jusoh, *et al.*, 2008; Riley *et al.*, 2003; Cardinaels and Dirks, 2010), however, their findings have not been conclusive, so that it generates a question of how the relevance of financial and non-financial information affect investment decision. Therefore, this problem remains the issue of interest to research. Whether or not financial and non-financial information have value relevance to the investor decision.

Ⅱ. Related Literature

This research used signaling theory as the one developed based on asymmetric information problem between two parties. Any information released by the company management is considered by others as signal to do something (Spence, 1973). Information containing good expectation will be responded well and can increase the volume of stock trading that will trigger the increase of stock price. The increasing stock price means the increasing return or profit to the investors. Such the condition indicates that the company performance is getting better.

The relationship between published information, either financial or non-financial (as signal), and the changing volume of trading can be seen from the stock return. Based on the logic of signaling theory, information presented in the annual report, especially non-financial information is a signal that will be the basis of decision-making for investors. Thus the financial information that is equipped with non-financial information will hopefully have value relevance on the investor decision.

A. Value Relevance

Francis and Schipper (1999) defined value relevance of accounting information as the ability of accounting values in representing the company condition which is reflected on fluctuation of stock price, so that value relevance shows that there is correlation between accounting information and stock price or stock return. The high-quality accounting information is indicated to have strong correlation to stock price, stock return, profit and equity book value (Barth, et al, 2008).

The concept of accounting information value relevance explains how investor reacts toward accounting information publication. This reaction will prove that accounting information becomes the rationale in the process of making investment decision. Scoot (2012:207) stated that value relevance of financial report information is closely related to the concept of profit quality, because it affects the stock price change after the presence of company's profit publication helping the investors to predict the future value of company. The study on value relevance is designed to convince that the accounting information presented has benefit and is useful to assess a company.

B. Financial Information

Financial information is obtained from the company's financial statement using fundamental analysis technique. Fundamental analysis is the analysis method based on a company's economic fundamentals. This technique emphasizes on financial ratio and events affecting the company's financial performance, either directly or indirectly. Fundamental analysis is beneficial to find out the correlation of accounting information and market performance. It is expected to be beneficial for investors to predict the expected return rate or the potential risk to occur in their stock investment. The financial statement analysis becomes important because it can summarize so many financial data and can combine report information (balance, profit-loss, capital and cash flow changes) to create the easy numbers in order to interpret financial data (Burkhardt and Wheeler, 2013).

Investors determine investment decisions from financial and non-financial information. In this research investor decision reflected on market performance. Company performance can be measured based on accounting and market calculation. The accounting-based measurement is conducted by using financial ratios measure that can give possible representation on the future condition. Meanwhile, the market-based measurement includes stock return, abnormal return, trading volume activity, Tobin's Q, price to earning ratio, and many more.

The value relevance testing in this research was conducted by using abnormal return in assessing company's market performance, because the investors reaction to information is indicated by abnormal return (Hartono, 2013: 588). Abnormal return is often used as the basis of market efficiency testing. The market is considered as efficient when no marketer encounters abnormal return in a sufficiently long period of time. The proportion of abnormal return is cumulative abnormal return (CAR). This research employed CAR as the company performance measure.

C. Non-Financial Information

Investors are more interested against the company in the future by predicting through non-financial information (Johnson and Templar, 2011), for example was a customer loyalty, employee learning and development innovations were created to maintain the sustainability of the company. Reichheld (1993) in Nowak and Aderson (1999) suggested that customer loyalty is a more effective method to predict the long term performance of company than the current sales volume. It indicates that the use of financial measurement will result in numbers not supporting the market-oriented investment in new technology. For that reason, many companies employ both financial and non-financial measures as added-value.

D. Conceptual Scheme and Hypothesis Development

This research aimed to examine whether or not there is value relevance of financial and non-financial information to the market performance in Indonesian public manufacturing companies. The conceptual scheme of research is depicted below.
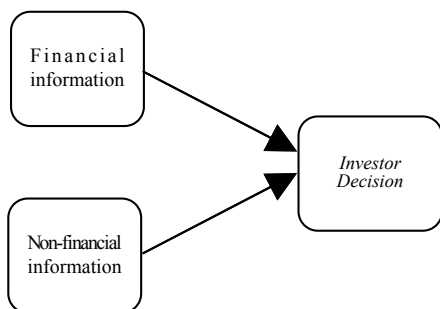

Figure 1. Conceptual Model of Research

Information on the annual report of the company not only contains financial information, but in it there is also non-financial information. The financial information used in this study is taken from the Return on Assets (ROA). The results of the financial analysis reflect the company's efficiency in managing resources. An efficient company means that they can provide a positive return and expected to have the ability to stay afloat even grow on the future. A financial ratio is a collection of some

of the assessment of the efficient use of company resources. Companies that have good performance, then the stock market performance of companies is also good. It can be seen from the abnormal return in the capital markets. Considering the elaboration above, the hypothesis is formulated as follows.

H_{1a}: *Return on assets* has value relevance on market performance

Non-financial information uses balanced scorecard method consisting of consumer perspective, internal business process perspective, and learning and growth perspective. Non-financial information representing the strategy which the company takes can provide more comprehensive information. Short- and long-term strategies bringing the company into better condition will be published concurrently with the company's annual report. Non-financial information studied for its relationship to the company performance will result in some authentications, indicating that non-financial measure has significant relationship to the future company performance (Banker, *et al*.,2000; Ittner, *et al*., 2003; Hussain, *et al*.,2002). Based on the statement above, the following hypotheses can be formulated.

H_{2a}: *Market share* has value relevance on market performance.
H_{2b}: *Internal Business Process* has value relevance toward on performance.
H_{2c}: *Learning and Growth* has value relevance on market performance.

Ⅲ. Method

This research is quantitative research, the data used are secondary data. The form of secondary data is data that is derived from the annual report. This research using a sample of the manufacturing companies listed on the Indonesia Stock Exchange in $2010 \sim 2012$. Sampling method in this research is conducted by the purposive sampling method. Samples that match the criteria of the proposed researcher are as much as 121 companies for 3 years, so there are 363 company data. However, after

the selection of data, there are 32 outlier data so that must be removed from the sample.

A. Dependent Variable

The dependent variable in this study is the Cumulative Abnormal Return (CAR). Abnormal return is the difference between the actual return that occurs with the return expectations. Whereas, the Cumulative Abnormal Return (CAR) is the amount of a percentage of all abnormal return over a given period. CAR calculated using market-adjusted models that assume that the best prediction to estimate return a securities market index return is at that time (Hartono, 2003). Thus, no need to use a period estimated to form the model estimation, due to the return of securities which are being estimated is the same as the market index return.

Abnormal return (R_{it}) obtained through two stages. The first stage is the difference of the actual return (R_{it}) which is then reduced by the market return (Rm_{it}) obtained from the second stage.

$$R_{it} = \frac{IHSI_t - IHSI_{t-1}}{IHSI_{t-1}}$$

$$R_{it} = \frac{JSX - JSX_{t-1}}{JSX_{t-1}}$$

$$AR_{it} = R_{it} - Rm_{it}$$

Where:

AR_{it}	: *Abnormal return* of share i in t period
R_{it}	: *Actual return* of share i in t period
Rm_{it}	: Market return index in t period.
$IHSI_t$	: Company stock price index i in t (month).
$IHSI_{t-1}$	: Company stock price index i in t-1 (month)
JSX_t	: JSX Composite Index in t (month)
JSX_{t-1}	: JSX Composite Index in t-1(month)

Then, for cumulative abnormal return is calculated from the sum of the abnormal return.

$$CAR_{it} = \sum AR_{it}$$

Where:

CAR_{it}	: *Cumulative Abnormal Return* of share i in t period
AR_{it}	: *Abnormal return* of share i in period

B. Independent Variable

1. Financial Variable

The market-based measure of company performance, according to Gani and Jermias (2006), tends to be more objective than the accounting based one. The data on annual financial performance, Return on Assets (ROA), were obtained from Fact Book editions 2011-2013. Return on Assets (ROA) reflects on the extent to which a company can utilize its asset to provide net profit. ROA is estimated from net income divided by the mean total asset.

$$ROA = \frac{(Net\ Income)_t}{(Mean\ of\ TotalAssrts)_t}$$

Where:

Net Income	: Earning After Income Tax
Mean of TA	: Mean of TA at beginning and ending period.

2. Non-Financial Variable

Non-financial variable in this research employed 3 perspectives: customer, internal business, and learning and growth.

1. **Customer perspective (Market Share/MS).** This customer perspective was estimated based on the market place included in the company's annual report. This measurement was used in Ghosh and Wu (2012), measuring it by using customer satisfaction, based on market share (MS). Such measurement was conducted by comparing the company sales with the total industrial sales in one same sub sector. Industrial sale employed sale volume approach to all go-public companies in the same sub sector.

2. **Internal business process (IB)**. This perspective was estimated by using dummy variable to capture the

presence of business process undertaken for internal company. Following Ittner et al (1997), number 1 was used if the company employed words explaining the presence of education or training held to improve the employee's knowledge and skill. Meanwhile, number 0 was used if the company does not mention the presence of activities undertaken to improve the employee skill.

3. **Learning and Growth (LG) perspective**. This perspective assesses whether or not learning and innovation improving the internal business process can improve the production efficiency, create new product, improve competitive competency in external product market, improve added-value for the customers, penetrate into new market, increase income and in turn improve the shareholder value (Kaplan & Norton, 1992). This variable proxy employed dummy variable by giving notation 1 if the company reveals the activities pertaining to learning and growth (innovation and production efficiency) and notation 0 if the company does not reveal those activities because it is considered as not making improvement over learning and growth.

C. Control Variable

The control variable in this research is firm's size. The firm's size is measured using the natural logarithm (ln) of total assets.

In this research, multiple regression analysis is used to analyze the relationship between independent variable and dependent variable. SPSS (Statistical Product and Service Solution) version 20 is used as an analytical data tool to test the regression model. Theoretically, the model will give the valid value if classical assumption test are fulfilled.

Before conducting the multiple regression analysis, data should be cleaned up with the classical assumption fulfillment to ensure that data is valid, unbiased, consistent, and have an efficient estimation of regression coefficients. Classical assumption test which include normality test, multicolinearity test, autocorrelation test and heteroscedasticity test.

This research multiple regression analysis to correlate both financial and non-financial information to cumulative abnormal return in manufacturing companies in ISE during 2010-2012. Regression analysis is a study on the dependent variable's dependency on one or more independent variables. The multiple regression model is shown in the following formula:

$$CAR = \alpha + \beta_1 ROA_{it} + \beta_2 MS_{it} + IB_{it} + \beta_4 LG_{it} + \beta_5 SIZE_{it} + \varepsilon$$

Where:

CAR	: *Cumulative Abnormal Return*
ROA	: *Return on Assets*
MS	: *Market shares*
IB	: *Internal Business Process*
LG	: *Learning and Growth*
Size	: *Company's Size*
ε	: *error*

IV. Result

The data analysis of research was started with classical assumption test, including normality, multicolinearity, heteroscedas-ticity, and autocorrelation test. Then the mapping was made on some statistic parameters of research data. The final sample in this study is 331 manufacturing companies' data during $2010 \sim 2012$.

Table 1 provides descriptive statistics of Cumulative Abnormal Return (CAR). Return on Assets (ROA), Market Share (MS), Internal Business Process (IB), Learning and Growth (LG), and Firm's Size (SIZE) statistic are also provided.

Table 2 shows the result of hypothesis testing on the value relevance of financial and non-financial information to market performance in Indonesian manufacturing public companies. The result shows that the F_{status} is 9.729 ($F_{probability}$ is 0.000). It means that this model suitability can be accepted. The adj. R^2 is 0.117. Based on the adj. R^2 value, conclude that the ability of the independent variables to explain variation the dependent variable is equal to 11.7% and the rest of it is explained by other variables outside the model.

Table 1. Statistic Descriptive

	Minimum	Maximum	Mean	Std. Deviation
CAR	-1.86497	3.66657	0.16580	0.67133
ROA	-0.75000	3.53846	0.06894	0.22287
MS	0.00000	1.00000	0.13760	0.19492
IB	0.00000	1.00000	0.31405	0.46478
LG	0.00000	1.00000	0.89807	0.30297
SIZE	2.39790	12.11327	7.16425	1.60563

CAR	: Cummulative Abnormal Return	ROA	: Return on Assets
MS	: Market shares	IB	: Internal Business Process
LG	: Learning and Growth	Size	: Company's Size

Table 2. Hypothesis Testing

Variable	Coefficients	t	Sig.
(Constant)	.18953	1.56069	0.120
ROA	1.04780	5.53876	0.000***
MS	.00025	2.34805	0.019**
IB	.10727	1.99845	0.047**
LG	.13526	1.82804	0.068*
SIZE	-.04727	-2.78753	0.006***
	Adj. R^2		0.117
	F-Value		9.729
	P-Value		0.000

  ** Sig 0.05 or 5%
 *** Sig 0.01 or 1%
   * Sig 0.10 or 10%

Ⅴ. Discussion

It has been a lot of research that uses this profit ratio (ROA) to know its relevance against the company's performance and stock performance (return), because it is considered to have excess, as a comprehensive measurement of the financial statements. In addition, calculate ROA is very easy to do and easy to understand. Analysis using ROA could also be applied to any organizational unit responsible for profitability. While the weakness of the measurements of the ROA, which tend to focus on short-term objectives. A project is measured by the ROA can improve short term goal, but contain negative consequences in the long term. The strategy of the termination of employment relationships, marketing budget reductions, and cheaper material use are the ways that can be used to achieve the targeted profitability but can reduce the product quality.

In accordance with the results of research and Chiung-Ming (2005), that the profit component more effectively explains the value of the company rather than just seeing the amount of profit earned. So it is with this research, the results are consistent with research and Guizani Abaoub (2012), where the ROA has a significant positive relationship with the company's value or with abnormal return of shares. ROA is used to measure the effectiveness of the company in generating profits by way of utilizing the assets. The higher the ROA, the higher return company stock as investors assesses the company's performance better then the investor is willing to buy it. Finally, the results of this research prove the existence of financial information on company's performance. (H1 is accepted)

Market share of a company has the meaning which is very important because it can be used to prove the strength of a company in an environment of competitors. Achievement of market share was featured as a target to be achieved by virtually any field of endeavor, the test results indicating the presence of communication

which is done to the public, so that all efforts of the achievement performance of absorbed by the market. Kaplan and Norton (1992) suggested that in the perspective of the customer there are two groups of measurements, i.e. the measurement of core customer group which includes: measure the magnitude of the market share, the rate of return new customer groups, and the measurement value preposition which includes, among others, product or services, customer relationship, image and reputation. The test results in this study, indicating that market share has a relevance rating (H2 accepted)

Internal business process that the company constantly conducted ultimately can create innovations that add value to the product that is produced so that it can create a competitive advantage compared to competitors' products. An innovation made by all companies is an embodiment of knowledge of market demand and the desire to meet the needs of the market with the availability of a product that is in tune with the expectations of the market. As Drucker (2003) mentioned that most of the innovation in business through methodological analysis of the emerging opportunities that exist. Those opportunities can be unexpected occurrences, incongruities of various kinds, process needs, change in industry or market, demographic change, change in perception and new knowledge. It proves that innovation is related positively and significantly to the company performance. However, innovation also serves as a mediator that confirms the relationship between market orientation and the company performance

Recalling that the samples used in this research are manufacturing companies, in which the competition occurs very tightly because of so many performers entering into similar business, this sector is identical with product innovation in order to fight against the competition. In addition, internal business process is undertaken continuously in the attempt of strengthening the market and of maintaining the customer trust and loyalty. However, the result of hypothesis testing in this research showed that internal business process variable is not something to be taken into account by the investors. In addition, internal business process that is continuously performed in the framework of strengthening the market is at once to maintain the trust and loyalty of customers. (H3 is accepted)

Regarding learning and growth, Kaplan (1996) suggested that the company should pay attention constantly

to its employees, monitor its employees' welfare and improve their knowledge because the improvement of employee knowledge will improve their ability of participating in the achievement of company objective. The employees' ability can be measured with its profitability level. Meanwhile, the information system ability is measured from the improvement of employees' quality and productivity affected by access to information system the company has. The easier the information is obtained, the better is the employee performance. The measurement of information system is conducted by measuring the percentage availability of information needed by employees on customers, production cost, and etc. Although information has been available, motivation is still required. Motivation was measured through the extent to which recommendations and methods proposed by the employees support the efficiency and productivity of company. The result of current research showed that LG variable has no value relevance so that the improvement of company empowerment from employee capability aspect becomes something important to be considered by the investors (H4 was rejected with significance 5%). But LG variable was significant with level significance 10% (H4 was accepted).

VI. Conclusion

The findings show that the financial information which is measured by using the Return on Assets (ROA) was positively related to the market performance. On the other, from three components consist in non-financial information, customer perspective and internal business process perspective that has positive relation with market performance. Learning and growth perspective has significantly effect on market performance (at significance 10%). Finally the results fully confirm the existence of a relationship between financial and non-financial information on market performance.

The implication of research is that a performance assessment system should be developed adjusted with the different needs of companies in order to be consistent with the objective to be achieved. In addition, the performance assessment should be based on the position or the stage where a company is. It is intended to help

find its competitive advantages. Market performance is highly affected by the company performance, for that reason the management of company resource should be taken into account in order to be always under control in order to achieve the objective of research.

The limitation of study is that this research is not supported by qualitative data enabling all aspects of analysis to be obtained and to give a more complete description including potential threat and opportunity that can be utilized by the company. In addition, the performance assessment which not made for any types of industry makes the result of research less effective.

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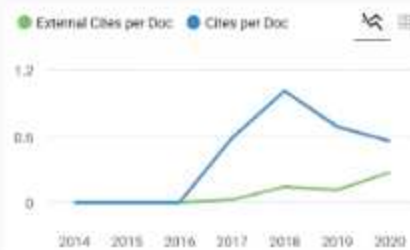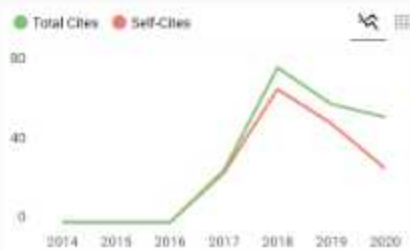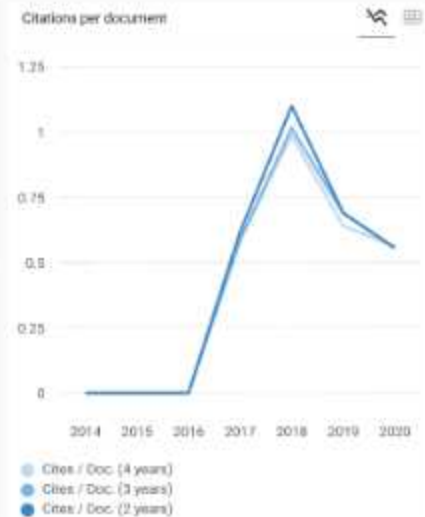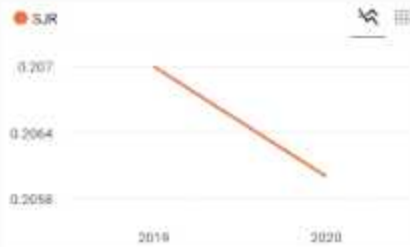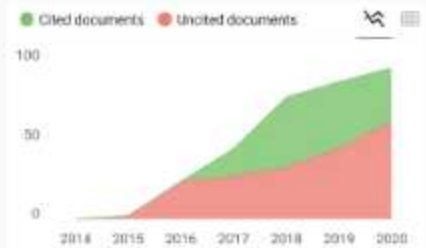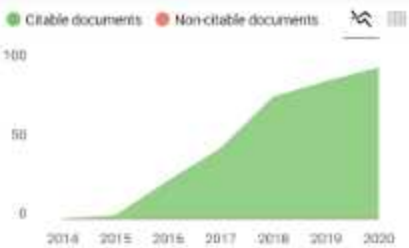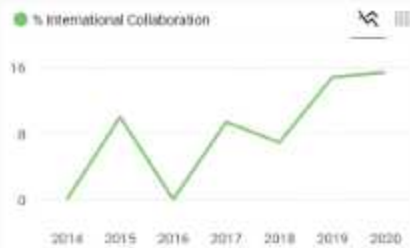
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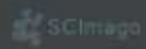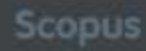
Value Relevance of Financial and Non-Financial Information to Investor Decision

by Setianingtyas Honggowati

GLOBAL BUSINESS & FINANCE REVIEW

Value Relevance of Financial and Non-Financial Information to Investor Decision

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A B S T R A C T

The objective of this study is to examine the value relevance of financial and non-financial information to investor decision. Investors determine investment decisions from financial and non-financial information. In this research investor decision reflected on company's market performance, market performance is measured using Cumulative Abnormal Return (CAR). Financial information is measured using Return on Assets (ROA) and non-financial information using three components of Balanced Scorecard Method, which reflect, customer perspective, internal business process perspective, and learning and growth perspective. This study uses multiple regression to analyze the data of 121 manufacturing companies listed on Indonesia Stock Exchange (IDX) for the period 2010-2012. Sampling method in this research is conducted by the purposive sampling method.

The findings show that the financial information which is measured by using the Return on Assets (ROA) was positively related to the market performance. On the other, from three components consist in non-financial information, customer perspective and internal busines and learning growth that has relation with market performance. Finally the results fully confirm the existence of a relationship between financial and non-financial information on market performance.

Keywords: Cumulative Abnormal Return; Return on Assets; Customer Perspective; Internal Business Perspective; Learning and Growth Perspective

I. Introduction

In today's market, the changes in the business world from the industrial era into the information era are influenced by economic growth and technological advancement. Technological advancements can be used to obtain the information for the company to strengthen their market position.

On the contrary, information of company's activities can be useful information to the other parties (e.g. regulators, competitors).

Company's information was being able to effecting investor's and stakeholders decision-making processes. Chiung and Ming (2005) suggested that investment decision affect the company's market performance through stock price. Chiung and Ming (2005) suggested that investment decisions affect market performance through stock price. Then, the stock price changes reflect changes in the rate of expected returns or the rate of potential risks (Riley, Pearson and Trompeter, 2003; Wiersma,

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2008). Financial and non-financial information obtained from the company's annual report. The information presented in the annual report of the company aims to provide the necessary data to stakeholders, to assess the performance of the company in the investment decision-making process (Hoque, 2005).

Information that is fast, accurate, timely and relevant, is urgently needed, so the way to analyze historical-based financial information became less relevant for assessing the company's performance (Peak and Dai, 2011). This shows the importance of company's performance measurement that is more comprehensive, including non-financial measurement. Coram, Mock and Monroe (2011) suggests that analysts use non-financial information in investment decision making and judgments process.

A recent empirical study has shown empirical evidence of the value relevance of financial and no-financial information (Riley, et al. 2003; Dontoh, Radhakrishnan and Ronen, 2004; Habib, 2004; Chiung and Ming, 2005; Ghosh and Wu, 2006; Enalby, Mohammad and Said, 2008; Wiersma, 2008; Gonzales, Pradhan and Malsonado, 2011; Al-Momani and Al-shboul, 2013). However, the result of recent studies evidence is inconsistent. Some studies has shown that there is significant value relevance (Riley et al. 2003; Chiung and Ming, 2005; Ghosh and Wu, 2006). Habib (2004) indicated that value relevance of financial information has negative relationship with earning management. Meanwhile, Dontoh, Radhakrishnan and Ronen (2004) found that the decreased value relevance of financial information on stock prices.

The studies on the value relevance of non-financial information also show inconsistent results. Chiung and Ming (2005), Ghosh and Wu (2006), Gonzales, Pradhan and Malsonado (2011), Al-Momani and Al-shboul (2013) shown that there is value relevance of non-financial information in relation to the predictability of firm failure, and it was related positively to company performance and financial performance. Riley, et al. (2003) and Enalby, et al. (2008) found that non-financial information is related positively to profit management. Meanwhile Wiersma (2008) concluded that non-financial performance does not have better value relevance compared with the company's financial performance.

The research on the value relevance of financial information in Indonesia proves that financial information has value relevance to the increasing stock price and there was no difference of value relevance between the

companies adopting and not adopting IFRS (Cahyonowati and Ratmono, 2012; Puspitaningtyas, 2012; Andriantomo and Yudianti, 2013). Meanwhile, the studies on the relevance of non-financial information in Indonesia shown inconsistent result. Astuti and Syahyunan (2013) shown that non-financial information has value relevance to the company performance. Whereas, Wondabio (2007) focusing on cost of equity suggested that non-financial information has negative significant value relevance to cost of equity.

Based on previous studies, the author wants to explore further the value relevance of financial and non-financial information. While financial information has ever been questioned for its relevance (Dontoh, et al, 2004), it has been proved that financial information is still relevant for the investors to make decision. Meanwhile, Kaplan and Norton (1992) introduced *Balanced Scorecard* (BSC). BSC is a method to assess the company performance using both financial and non-financial measure concurrently. The measurement of non-financial performance, including consumer satisfaction, product innovation, company and employee development, will provide more comprehensive information to investors. Analysts tend to pay more attention to company category using BSC than that not using BSC (Cardinaels and Dirks, 2010). The component of BSC is an elaboration of the company's long term strategy and mission. Thus, assessing a variety of BSC components can represent the upcoming condition and the company's ty in maintaining their sustainability. It indicates that both financial and non-financial information are required by the investor to make investment decision.

A recent udy so far has not found many evidences about the value relevance of financial and non-financial information to i tor decision. Some studies have tried to examine the relevance of financial and n inancial information (Ghosh and Wu, 2012; Coram, *et al.*, 2011; Jusoh, *et al.*, 2008; Riley *et al.*, 2003; Cardinaels and Dirks, 2010), however, their findings have not been conclusive, so that it generates a question of how the relevance of financial and non-financial information affect investment decision. Therefore, this problem remains the issue of interest to research. Whether or not financial and non-financial information have value relevance to the investor decision.

II. Related Literature

This research used signaling theory as the one developed based on asymmetric information problem between two parties. Any information released by the company management is considered by others as signal to do something (Spence, 1973). Information containing good expectation will be responded well and can increase the volume of stock trading that will trigger the increase of stock price. The increasing stock price means the increasing return or profit to the investors. Such the condition indicates that the company performance is getting better.

The relationship between published information, either financial or non-financial (as signal), and the changing volume of trading can be seen from the stock return. Based on the logic of signaling theory, information presented in the annual report, especially non-financial information is a signal that will be the basis of decision-making for investors. Thus the financial information that is equipped with non-financial information will hopefully have value relevance on the investor decision.

A. Value Relevance

41

Francis and Schipper (1999) defined value relevance of accounting information as the ability of accounting values in representing the company condition which is reflected on fluctuation of stock price, so that value relevance shows that there is correlation between accounting information and stock price or stock return. The high-quality accounting information is indicated to have strong correlation to stock price, stock return, profit and equity book value (Barth, et al, 2008).

The concept of accounting information value relevance explains how investor reacts toward accounting information publication. This reaction will prove that accounting information becomes the rationale in the process of making investment decision. Scoot (2012:207) stated that value relevance of financial report information is closely related to the concept of profit quality, because it affects the stock price change after the presence of company's profit publication helping the investors to predict the future value of company. The study on value

relevance is designed to convince that the accounting information presented has benefit and is useful to assess a company.

B. Financial Information

Financial information is obtained from the company's financial statement using fundamental analysis technique. Fundamental analysis is the analysis method based on a company's economic fundamentals. This technique emphasizes on financial ratio and events affecting the company's financial performance, either directly or indirectly. Fundamental analysis is beneficial to find out the correlation of accounting information and market performance. It is expected to be beneficial for investors to predict the expected return rate or the potential risk to occur in their stock investment. The financial statement analysis becomes important because it can summarize so many financial data and can combine report information (balance, profit-loss, capital and cash flow changes) to create the easy numbers in order to interpret financial data (Burkhardt and Wheeler, 2013).

Investors determine investment decisions from financial and non-financial information. In this research investor decision reflected on market performance. Company performance can be measured based on accounting and market calculation. The accounting-based measurement is conducted by using financial ratios measure that can give possible representation on the future condition. Meanwhile, the market-based measurement includes stock return, abnormal return, trading volume activity, Tobin's Q, price to earning ratio, and many more.

The value relevance testing in this research was conducted by using abnormal return in assessing company's market performance, because the investors reaction to information is indicated by abnormal return (Hartono, 2013: 588). Abnormal return is often used as the basis of market efficiency testing. The market is considered as efficient when no marketer encounters abnormal return in a sufficiently long period of time. The proportion of abnormal return is cumulative abnormal return (CAR). This research employed CAR as the company performance measure.

C. Non-Financial Information

Investors are more interested against the company in the future by predicting through non-financial information (Johnson and Templar, 2011), for example was a customer loyalty, employee learning and development innovations were created to maintain the sustainability of the company. Reichheld (1993) in Nowak and Aderson (1999) suggested that customer loyalty is a more effective method to predict the long term performance of company than the current sales volume. It indicates that the use of financial measurement will result in numbers not supporting the market-oriented investment in new technology. For that reason, many companies employ both financial and non-financial measures as added-value.

D. Conceptual Scheme and Hypothesis Development

This research aimed to examine whether or not there is value relevance of financial and non-financial information to the market performance in Indonesian public manufacturing companies. The conceptual scheme of research is depicted below.
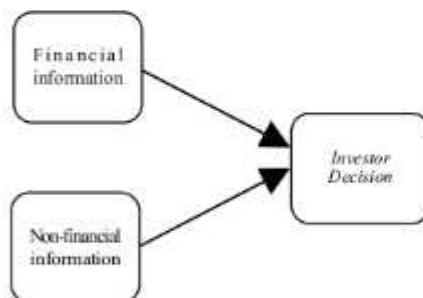

Figure 1. Conceptual Model of Research

Information on the annual report of the company not only contains financial information, but in it there is also non-financial information. The financial information used in this study is taken from the Return on Assets (ROA). The results of the financial analysis reflect the company's efficiency in managing resources. An efficient company means that they can provide a positive return and expected to have the ability to stay afloat even grow on the future. A financial ratio is a collection of some

of the assessment of the efficient use of company resources. Companies that have good performance, then the stock market performance of companies is also good. It can be seen from the abnormal return in the capital markets. Considering the elaboration above, the hypothesis is formulated as follows.

H_{1a}: *Return on assets* has value relevance on market performance

Non-financial information uses balanced scorecard method consisting of consumer perspective, internal business process perspective, and learning and growth perspective. Non-financial information representing the strategy which the company takes can provide more comprehensive information. Short- and long-term strategies bringing the company into better condition will be published concurrently with the company's annual report. Non-financial information studied for its relationship to the company performance will result in some authentications, indicating that non-financial measure has significant relationship to the future company performance (Banker, *et al.*,2000; Ittner, *et al.*, 2003; Hussain, *et al.*,2002). Based on the statement above, the following hypotheses can be formulated.

H_{2a}: *Market share* has value relevance on market performance.

H_{2b}: *Internal Business Process* has value relevance toward on performance.

H_{2c}: *Learning and Growth* has value relevance on market performance.

III. Method

This research is quantitative research, the data used are secondary data. The form of secondary data is data that is derived from the annual report. This research using a sample of the manufacturing companies listed on the Indonesia Stock Exchange in 2010 ~ 2012. Sampling method in this research is conducted by the purposive sampling method. Samples that match the criteria of the proposed researcher are as much as 121 companies for 3 years, so there are 363 company data. However, after

the selection of data, there are 32 outlier data so that must be removed from the sample.

A. Dependent Variable

The dependent variable in this study is the Cumulative Abnormal Return (CAR). Abnormal return is the difference between the actual return that occurs with the return expectations. Whereas, the Cumulative Abnormal Return (CAR) is the amount of a percentage of all abnormal return over a given period. CAR calculated using market-adjusted models that assume that the best prediction to estimate return a securities market index return is at that time (Hartono, 2003). Thus, no need to use a period estimated to form the model estimation, due to the return of securities which are being estimated is the same as the market index return.

Abnormal return (R_{it}) obtained through two stages. The first stage is the difference of the actual return (R_{it}) which is then reduced by the market return (Rm_{it}) obtained from the second stage.

$$R_{it} = \frac{IHSI_t - IHSI_{t-1}}{IHSI_{t-1}}$$

$$R_{it} = \frac{JSX - JSX_{t-1}}{JSX_{t-1}}$$

$$AR_{it} = R_{it} - Rm_{it}$$

Where:

AR_{it}	: Abnormal return of share i in t period
R_{it}	: Actual return of share i in t period
Rm_{it}	: Market return index in t period.
$IHSI_t$	: Company stock price index i in t (month).
$IHSI_{t-1}$	: Company stock price index i in t-1 (month)
JSX_t	: JSX Composite Index in t (month)
JSX_{t-1}	: JSX Composite Index in t-1(month)

Then, for cumulative abnormal return is calculated from the sum of the abnormal return.

$$CAR_{it} = \sum AR_{it}$$

Where:

CAR_{it}	: Cumulative Abnormal Return of share i in t period
AR_{it}	: Abnormal return of share i in period

B. Independent Variable

1. Financial Variable

The market-based measure of company performance, according to Gani and Jermias (2006), tends to be more objective than the accounting based one. The data on annual financial performance, Return on Assets (ROA), were obtained from Fact Book editions 2011-2013. Return on Assets (ROA) reflects on the extent to which a company can utilize its asset to provide net profit. ROA is estimated from net income divided by the mean total asset.

$$ROA = \frac{(Net\ Income)_t}{(Mean\ of\ TotalAssrts)_t}$$

Where:

Net Income	: Earning After Income Tax
Mean of TA	: Mean of TA at beginning and ending period.

2. Non-Financial Variable

Non-financial variable in this research employed 3 perspectives: customer, internal business, and learning and growth.

1. **Customer perspective (Market Share/MS).** This customer perspective was estimated based on the market place included in the company's annual report. This measurement was used in Ghosh and Wu (2012), measuring it by using customer satisfaction, based on market share (MS). Such measurement was conducted by comparing the company sales with the total industrial sales in one same sub sector. Industrial sale employed sale volume approach to all go-public companies in the same sub sector.

2. **Internal business process (IB).** This perspective was estimated by using dummy variable to capture the

presence of business process undertaken for internal company. Following Ittner et al (1997), number 1 was used if the company employed words explaining the presence of education or training held to improve the employee's knowledge and skill. Meanwhile, number 0 was used if the company does not mention the presence of activities undertaken to improve the employee skill.

3. **Learning and Growth (LG) perspective**. This perspective assesses whether or not learning and innovation improving the internal business process can improve the production efficiency, create new product, improve competitive competency in external product market, improve added-value for the customers, penetrate into new market, increase income and in turn improve the shareholder value (Kaplan & Norton, 1992). This variable proxy employed dummy variable by giving notation 1 if the company reveals the activities pertaining to learning and growth (innovation and production efficiency) and notation 0 if the company does not reveal those activities because it is considered as not making improvement over learning and growth.

C. Control Variable

The control variable in this research is firm's size. The firm's size is measured using the natural logarithm (ln) of total assets.

In this research, multiple regression analysis is used to analyze the relationship between independent variable and dependent variable. SPSS (Statistical Product and Service Solution) version 20 is used as an analytical data tool to test the regression model. Theoretically, the model will give the valid value if classical assumption test are fulfilled.

Before conducting the multiple regression analysis, data should be cleaned up with the classical assumption fulfillment to ensure that data is valid, unbiased, consistent, and have an efficient estimation of regression coefficients. Classical assumption test which include normality test, multicolinearity test, autocorrelation test and heteroscedasticity test.

This research multiple regression analysis to correlate both financial and non-financial information to cumulative abnormal return in manufacturing companies in ISE during 2010-2012. Regression analysis is a study on the dependent

variable's dependency on one or more independent variables. The multiple regression model is shown in the following formula:

$$CAR = \alpha + \beta_1 ROA_{it} + \beta_2 MS_{it} + IB_{it} + \beta_4 LG_{it} + \beta_5 SIZE_{it} + \varepsilon$$

Where:

CAR	: Cumulative Abnormal Return
ROA	: Return on Assets
MS	: Market shares
IB	: Internal Business Process
LG	: Learning and Growth
Size	: Company's Size
ε	: error

IV. Result

The data analysis of research was started with classical assumption test, including normality, multicolinearity, heteroscedas-ticity, and autocorrelation test. Then the mapping was made on some statistic parameters of research data. The final sample in this study is 331 manufacturing companies' data during 2010 – 2012.

Table 1 provides descriptive statistics of Cumulative Abnormal Return (CAR), Return on Assets (ROA), Market Share (MS), Internal Business Process (IB), Learning and Growth (LG), and Firm's Size (SIZE) statistic are also provided.

Table 2 shows the result of hypothesis testing on the value relevance of financial and non-financial information to market performance in Indonesian manufacturing public companies. The result shows that the F_{status} is 9.729 ($F_{probability}$ is 0.000). It means that this model suitability can be accepted. The adj. R^2 is 0.117. Based on the adj. R^2 value, conclude that the ability of the independent variables to explain variation the dependent variable is equal to 11.7% and the rest of it is explained by other variables outside the model.

Table 1. Statistic Descriptive

	Minimum	Maximum	Mean	Std. Deviation
CAR	-1.86497	3.66657	0.16580	0.67133
ROA	-0.75000	3.53846	0.06894	0.22287
MS	0.00000	1.00000	0.13760	0.19492
IB	0.00000	1.00000	0.31405	0.46478
LG	0.00000	1.00000	0.89807	0.30297
SIZE	2.39790	12.11327	7.16425	1.60563

CAR	: Cummulative Abnormal Return	ROA	: Return on Assets
MS	: Market shares	IB	: Internal Business Process
LG	: Learning and Growth	Size	: Company's Size

Table 2. Hypothesis Testing

Variable	Coefficients	t	Sig.
(Constant)	.18953	1.56069	0.120
ROA	1.04780	5.53876	0.000***
MS	.00025	2.34805	0.019**
IB	.10727	1.99845	0.047**
LG	.13526	1.82804	0.068*
SIZE	-.04727	-2.78753	0.006***
	Adj. R^2		0.117
	F-Value		9.729
	P-Value		0.000

** Sig 0.05 or 5%
*** Sig 0.01 or 1%
* Sig 0.10 or 10%

V. Discussion

It has been a lot of research that uses this profit ratio (ROA) to know its relevance against the company's performance and stock performance (return), because it is considered to have excess, as a comprehensive measurement of the financial statements. In addition, calculate ROA is very easy to do and easy to understand. Analysis using ROA could also be applied to any organizational unit responsible for profitability. While the weakness of the measurements of the ROA, which tend to focus on short-term objectives. A project is measured by the ROA can improve short term goal, but contain negative consequences in the long term. The strategy of the termination of employment relationships, marketing budget reductions, and cheaper material use are the ways that can be used to achieve the targeted profitability but can reduce the product quality.

In accordance with the results of research and Chiung-Ming (2005), that the profit component more effectively explains the value of the company rather than just seeing the amount of profit earned. So it is with this research, the results are consistent with research and Guizani Abaoub (2012), where the ROA has a significant positive relationship with the company's value or with abnormal return of shares. ROA is used to measure the effectiveness of the company in generating profits by way of utilizing the assets. The higher the ROA, the higher return company stock as investors assesses the company's performance better then the investor is willing to buy it. Finally, the results of this research prove the existence of financial information on company's performance. (H1 is accepted)

Market share of a company has the meaning which is very important because it can be used to prove the strength of a company in an environment of competitors. Achievement of market share was featured as a target to be achieved by virtually any field of endeavor, the test results indicating the presence of communication

which is done to the public, so that all efforts of the achievement performance of absorbed by the market. Kaplan and Norton (1992) suggested that in the perspective of the customer there are two groups of measurements, i.e. the measurement of core customer group which includes: measure the magnitude of the market share, the rate of return new customer groups, and the measurement value preposition which includes, among others, product or services, customer relationship, image and reputation. The test results in this study, indicating that market share has a relevance rating (H2 accepted)

Internal business process that the company constantly conducted ultimately can create innovations that add value to the product that is produced so that it can create a competitive advantage compared to competitors' products. An innovation made by all companies is an embodiment of knowledge of market demand and the desire to meet the needs of the market with the availability of a product that is in tune with the expectations of the market. As Drucker (2003) mentioned that most of the innovation in business through methodological analysis of the emerging opportunities that exist. Those opportunities can be unexpected occurrences, incongruities of various kinds, process needs, change in industry or market, demographic change, change in perception and new knowledge. It proves that innovation is related positively and significantly to the company performance. However, innovation serves as a mediator that confirms the relationship between market orientation and the company performance

Recalling that the samples used in this research are manufacturing companies, in which the competition occurs very tightly because of so many performers entering into similar business, this sector is identical with product innovation in order to fight against the competition. In addition, internal business process is undertaken continuously in the attempt of strengthening the market and of maintaining the customer trust and loyalty. However, the result of hypothesis testing in this research showed that internal business process variable is not something to be taken into account by the investors. In addition, internal business process that is continuously performed in the framework of strengthening the market is at once to maintain the trust and loyalty of customers. (H3 is accepted)

Regarding learning and growth, Kaplan (1996) suggested that the company should pay attention constantly

to its employees, monitor its employees' welfare and improve their knowledge because the improvement of employee knowledge will improve their ability of participating in the achievement of company objective. The employees' ability can be measured with its profitability level. Meanwhile, the information system ability is measured from the improvement of employees' quality and productivity affected by access to information system the company has. The easier the information is obtained, the better is the employee performance. The measurement of information system is conducted by measuring the percentage availability of information needed by employees on customers, production cost, and etc. Although information has been available, motivation is still required. Motivation was measured through the extent to which recommendations and methods proposed by the employees support the efficiency and productivity of company. The result of current research showed that LG variable has no value relevance so that the improvement of company empowerment from employee capability aspect becomes something important to be considered by the investors (H4 was rejected with significancy 5%). But LG variable was significant with level significancy 10% (H4 was accepted).

VI. Conclusion

The findings show that the financial information which is measured by using the Return on Assets (ROA) was positively related to the market performance. On the other, from three components consist in non-financial information, customer perspective and internal business process perspective that has positive relation with market performance. Learning and growth perspective has significantly effect on market performance (at significancy 10%). Finally the results fully confirm the existence of a relationship between financial and non-financial information on market performance.

The implication of research is that a performance assessment system should be developed adjusted with the different needs of companies in order to be consistent with the objective to be achieved. In addition, the performance assessment should be based on the position or the stage where a company is. It is intended to help

find its competitive advantages. Market performance is highly affected by the company performance, for that on the management of company resource should be n into account in order to be always under control in order to achieve the objective of research.

The limitation of study is that this research is not supported by qualitative data enabling all aspects of analysis to be obtained and to give a more complete description including potential threat and opportunity that can be utilized by the company. In addition, the performance assessment which not made for any types of industry makes the result of research less effective.

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