

# Accounting Information Quality and Market Reaction: A Survey of Banking Industries Listed in Indonesia Stock Exchange

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## Abstract

The purpose of this study is to examine the influence of accounting information quality in terms of qualitative characteristics of accounting information toward market reaction. Research was conducted on 35 banking industries listed in the Indonesia Stock Exchange and analyzed using SEM-PLS method. The empirical result indicates that accounting information quality has a positive and significant effect on market reaction.

**Keywords:** accounting information quality, qualitative characteristics, market reaction, stock return.

## 1. Introduction

Good financial performance is an indicator of good news and this should provide a positive sentiment on the market reaction (Ball & Brown, 1968; Beaver, 1968; Dechow, 1994). Investor as capital market players, need information to assess the risks and prospects for future profits to be more accurate (Healy & Palepu, 2001). However, when the 2008 financial crisis, there are anomalies in the market reaction in the Indonesia Stock Exchange, where the stock price index fell while the company whose shares plummeted recorded a good financial performance.

Anomalies market reaction in the Indonesia Stock Exchange is not consistent with the results of research conducted by Ball and Brown (1968). The study is to reveal the usefulness of accounting numbers (earnings) in the stock market and the relationship between accounting earnings announcements in the financial statements with the abnormal changes in performance index. The results of Ball and Brown (1968) are consistent with the hypothesis that earnings announcements have information content and there is a strong relationship between changes in accounting earnings with the stock price changes. Research results conducted by Beaver (1968) also showed that the announcement of accounting earnings information encouraging positive market reaction shown by the increased volume of trade and the level of stock returns. Therefore, the accounting information affects the market reaction.

Other studies showed different results. Lev (1989) reported the results of an evaluation of accounting research in capital markets in the United States shows that the usefulness of earnings information for the stock market is very limited, and the value relevance of accounting information for investors in the stock market has been declining. Hoitash et al. (2002) and Aboody et al. (2002) stated that the decline in market reaction to the announcement of earnings caused by the irrational behavior of investors (noise trading) or inefficient markets. Investors have limited attention both in terms of time and the ability to process all available information (Hoitash et al., 2002; Aboody et al., 2002). As a consequence, the market reaction being biased when the stock was perceived unnatural and only manifestation of investor's psychological and emotional factors (Scott, 2000).

Based on Ball and Brown (1968), Beaver (1968), Lev (1989), Hoitash et al. (2002) and Aboody et al. (2002) can be said that information plays an important role in influencing the market reaction. According to Gelinas et al. (2005), information has a value for decision makers because it reduces uncertainty and increasing attention to some areas. Quality accounting information can be used in the process of decision-making both for internal management and external users (Hall, 2004: 21; Sacer et.al., 2009). Furthermore, according to Strong et al. (1997) a bad quality information can create chaos, so that should be a diagnosis of the root causes so that the organization can identify and resolve problems before emerging financial and legal consequences.

According to Greuning & Bratanovic (2011), activity-based information technology in banking practices such as trading in financial markets and the revenue generated from transaction fees is currently the main source of the bank's profitability. However, the quality of information on bank problems still occur. For example, as stated by Hadi Purnomo (2010), Bank Indonesia (the central bank of the Republic of Indonesia) does not provide a real, complete, and up to date information while conveying that Century Bank has failed. Another example is information on the financial statements of BTN which contain irregularities due to loans restructuring (Irwan Lubis, 2014).

The purpose of this study is to examine the effect of accounting information, in terms of qualitative characteristics, toward market reaction.

## 2. Literature Review and Hypotheses Development

**The Quality of Accounting Information:** The quality of accounting information is the suitability of the accounting information that has qualitative characteristics required by users to make decisions that are useful in

achieving organizational goals (Beest et al., 2009); (Romney & Steinbart, 2009); (Stair & Reynolds, 2010); (Wilkinson et al, 2008); (Mc.Leod & Schell, 2007); (Turner & Weickgenant, 2009); (Laudon and Laudon, 2012).

The qualitative characteristics of accounting information consists of several dimensions, namely:

- 1) Accurate, which describes and explains the actual condition (Stair & Reynolds, 2010; Laudon & Laudon, 2012). The indicators used to measure this dimension are:
  - a) The accuracy of the information in explaining the real situation.
  - b) There is only one information.
- 2) Relevance, which describes that the information has value in decision-making and related to the issue to be decided (Beest et al., 2009). The indicators used to measure this dimension are:
  - a) Has a feedback.
  - b) Has a predictive value.
- 3) Complete, which describes that information included all aspects that required by users (Mc.Leod & Schell, 2007; Turner & Weickgenant, 2009). The indicators used to measure this dimension are:
  - a) Information provided accordance with user requirements.
  - b) Information provided accordance with the applicable regulations.
- 4) Timeliness, which describes that information presented in time for decision makers to make decisions (Mc.Leod & Schell, 2007; Beest et al., 2009). The indicators used to measure this dimension are:
  - a) The availability of information when required.
  - b) Time needed to present an annual report.
- 5) Comparability, which describes that information can be compared with the same accounting methods from prior years (Beest, 2009). The indicators used to measure this dimension are:
  - a) Consistence in using methods and forms.
  - b) Disclosures presented when using a different method from the previous year.
- 6) Understandability, which describes that information presented in a useful and intelligible format (Romney & Steinbart, 2009). The indicators used to measure this dimension are:
  - a) The use of terms that appropriate and understandable.
  - b) The use of forms and formats that can be understood.

**Market Reaction:** Market reaction is a reaction related investor's decision to buy and sell the stocks in the capital market, which reached a certain price equilibrium point (Loader, 2003; Fabozzi & Drake, 2009; Choudhry et al., 2010; Brealey & Myers, 2004). Market reaction in this research proxied by stock return (Brealey & Myers, 2004) which measured by the stock price changes before and after the announcement of financial statements (Ang, 1997).

**Research Framework:** Since Ball & Brown (1968) showed the correlations among accounting information and stock price, related research is becoming increasingly expanded. Beaver (1968) evaluated market reaction over accounting information announcement and the results showed that trading volume and stock return rate in the week around the announcement was higher than other weeks. Morse (1981) evaluated the change of stock price and trading volume around announcement of financial statements and the results showed that there was a significant change on stock price and trading volume before and on the day of announcement of financial statements.

Information of accounting earnings have a strong correlation with market reaction, which showed by stock price fluctuation (Dechow, 1994). Financial information is important to make the right decisions because it reduced information asymmetry among manager and investor (Hossain & Mitra, 2004). Investors need information to evaluate risk and future prospect accurately. Corporate management have to provide information to investors through financial reporting (Healy & Palepu, 2001).

Cohen (2003) evaluated the determinants and consequences of accounting information and the results showed that higher accounting information can reduced asymmetry information related to market reaction. Perera & Thrikawala (2010) showed that accounting information has an effect on investor's reaction, beside that, the result indicates that investors still considering accounting information in making decision associated with investment in capital market.

Information play an important role which can be influence to market reaction (Lev, 1989; Hoitash et al., 2002; Aboody et al., 2002). According to Sri Mulyani (2008), the quality of information, which measured by several dimensions namely: relevant, accurate, timely, and complete, provide a big contribution in making an optimal decision.

Based on the previous description, the hypothesis proposed in this study:

Ha: accounting information quality has an effect on market reaction

### 3. Materials and Methods

**Research object:** The research object is variable, or what is the focal point of a study (Suharsimi Arikunto, 2013). A variable is anything that can bring variation in values (Sekaran and Bougie, 2013). Thus the object of

this research is accounting information quality and market reaction. This research method used explanatory survey because it aims to study the situation or problem to explain the influence between variables (Saunders et al., 2009).

**Variables operationalization:** Variables operationalization is the process of operationalizing the concept into a variable that can be measured, which is categorized based on the elements that can be measured (Sekaran & Bougie, 2013). Variables operationalization in this study can be seen in Table 1.

Table 1: Variables operationalization

Variables	Indicator	Scale
Accounting information quality (McLeod & Schell, 2007; Beest et al., 2009; Stair & Reynolds, 2010; Romney & Steinbart, 2009; Wilkinson et al., 2008; Turner & Weickgenant, 2009; Laudon & Laudon, 2012)	Accurate	5-point Bipolar (ordinal)
	Relevant	5-point Bipolar (ordinal)
	Complete	5-point Bipolar (ordinal)
	Timely	5-point Bipolar (ordinal)
	Comparability	5-point Bipolar (ordinal)
	Understandability	5-point Bipolar (ordinal)
Market reaction (Brealey & Myers, 2004; Loader, 2003; Fabozzi & Drake, 2009; Choudhry et al., 2010)	$\text{Stock return} = \frac{\text{Stock price}_t}{\text{Stock price}_{t-1}}$	Ratio

**Data analysis:** Data analysis method used in this research is Structural Equation Model (SEM) - Partial Least Square (PLS). According to Hair et al. (2010), PLS is an alternative method of SEM that can be used to solve problems of complex relationships among variables but have a small data sample size (30 to 100).

#### 4. Results and Discussion

**Research result and descriptive analysis:** Based on research data, the average score of accounting information quality latent variable (X) is 4.200 (in range of interval from 1.000 - 5.000). It means that accounting information quality in banking industries listed in Indonesia Stock Exchange can be classified on high category.

Manifest variables of accounting information quality which get the higher average scores respectively shown by indicators of timely, followed by indicators of relevant, accurate, comparability, complete and understandability.

Furthermore, based on research data, market reaction which proxied by stock return, get value in the range of 0,000 – 1,000. 32 banks have increased the stock return while 3 others have no change in stock return.

The results of calculations for the measurement model of accounting information quality variable can be described as follows:

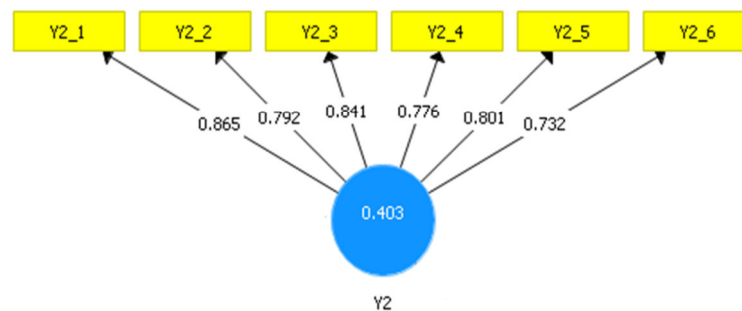


Fig. 1: Outer model of Accounting Information Quality Variable

The measurement model describes the outer loadings of each dimension on these variables. Outer loadings represent the absolute contribution of each dimension to reflect the latent variables. The calculations show that all dimensions have a loading path > 0.50 indicating that each of these dimensions can significantly reflect the latent variable of accounting information quality.

The results of these calculations also show the value of Cronbach's alpha = 0.889; Composite Reliability = 0.915; and Average Variance Extracted (AVE) = 0.643. All these values indicate that the measurement of latent variable models of Accounting Information Quality meets the fit model.

Through the test results of the measurement model, loading factor of each manifest variable greater than 0.50 and the t value of each manifest variable also greater than 1.69. This means that six manifest variables significant in forming latent variable of accounting information quality.

Based on research data shows that "accurate" is a more powerful dimension in forming latent variable of accounting information quality than the other manifest variables.

The results of calculations for the measurement model variable of market reaction can be described as follows:



Fig. 2: Outer model of Market Reaction Variable

The calculations show that the dimension of the market reaction latent variable has a path loading of 1.000 which is certainly greater than 0.50. This indicates that the dimension directly represent or reflect the latent variables of Market Reaction.

The results of these calculations also show the value of Cronbach's alpha = 1.000; Composite Reliability = 1.000; and Average Variance Extracted (AVE) = 1.000. All these values indicate that the measurement models of Market Reaction latent variable meets the fit model.

Based on calculations of research data, the equation structural model of this study is:

$$Y = 0.383 X + \varepsilon, \quad R^2 = 0.147; \quad = 0.853)$$

This equation shows that the influence of the quality of accounting information to the market reaction is equal to 0.383. The coefficient of determination ( $R^2$ ) of 0.147 indicates that 14.7% of the variation in the accounting information quality can be explained by the model.

The t value of accounting information quality (4.664) is greater than the critical t value (1.69), so at the confidence level of 90%, was decided to reject  $H_0$  and accept  $H_a$ . So based on the test results can be concluded that the accounting information quality has an influence on the market reaction, especially to banking industries listed in the Indonesia Stock Exchange. The results of this study provide empirical evidence that the better the quality of accounting information, the better the market reaction.

In order to validate the overall model, used Goodness of Fit (GoF) index which is a single measure to validate the performance of the combination of the measurement model (outer model) and the structural model (inner model). GoF index value is derived from averages communalities index or average AVE endogenous variables multiplied by the average R<sup>2</sup> models. The calculations show that GoF for the model in this study was 0.503 which can be categorized as high GoF. Structural model can be seen in Figure 3.

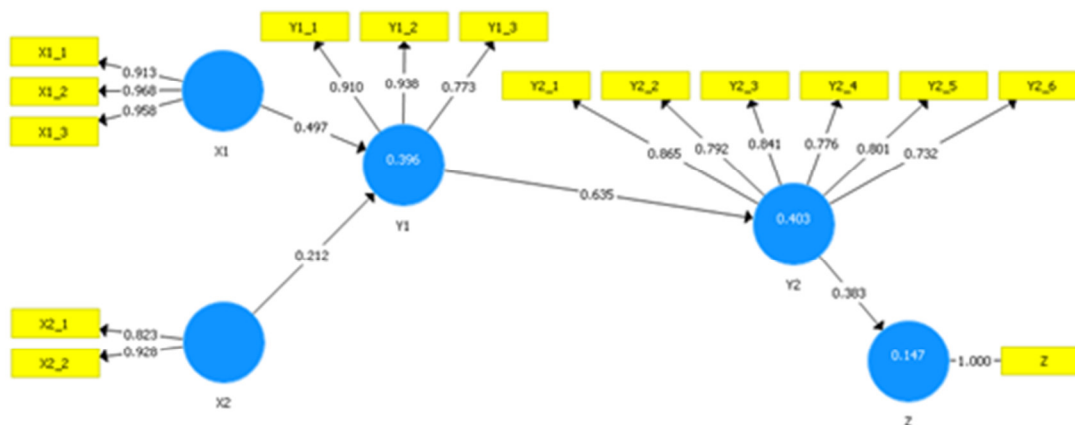


Fig. 3: Structural Model

## 5. Conclusion

Based on the results of this research, it can be concluded that accounting information quality has a positive and significant effect on market reaction. Results indicate that investors in the Indonesian capital market paid little attention to aspects of the qualitative characteristics of accounting information. It certainly does not correspond to the behavior of investors, which is supposed to be rational, to maximize return and minimize risk.

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