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THE EFFECT OF MARKET PRICING ACCRUAL, FOREIGN OWNERSHIP, FINANCIAL DISTRESS, AND LEVERAGE ON THE INTEGRITY OF FINANCIAL STATEMENTS

ABSTRACT: *The purpose of this research is to analyse the effect of market pricing accrual, foreign ownership, financial distress, and leverage on the integrity of financial statements, using multiple regression analysis and logistic regression. The research uses 363 samples, comprising the data of 121 manufacturing companies listed on the Indonesia Stock Exchange over three years, from 2013 to 2015. The results show that market pricing accrual has a significant positive influence on the integrity of financial statements, while a company's leverage has a significant negative influence. Bankruptcy and foreign ownership have no sig-*

nificant effect on financial statements' integrity. Based on the research results, when assessing the integrity of financial statements a company's stakeholders should pay most attention to market pricing accrual and the company's leverage. In addition, regulators should produce standards or guidelines governing the company's remit and responsibilities regarding financial statements.

KEY WORDS: *market pricing accrual; foreign ownership; financial distress; leverage; integrity of financial statements*

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1. INTRODUCTION

The integrity of financial statements is an important factor in communicating information to stakeholders (Schnackenberg & Tomlinson 2016; Wondabio 2007; Yang, Shen, Ho, Drew, & Chan 2009). A company's financial statements describe its overall financial condition; hence they are often used as the basis for investors' decisions (Bonner, Clor-Proell, & Koonce 2014; Sriwati & Murwaningsari 2016). The Indonesia Stock Exchange (IDX) requires all public companies to publish annual reports, which is the responsibility of the company's management. Users or stakeholders and both internal and external parties use the information to analyse a company's performance (Kang & Gray 2014; Rodrigue, Magnan, & Boulianne 2013).

The auditor's report also indicates the financial condition of a company. The quality and quantity of the information disclosed in the auditor's report differs between companies (Frias-Aceituno, Rodriguez-Ariza, & Garcia-Sanchez 2013; Maaloul & Zéghal 2015), making it difficult for stakeholders to thoroughly and accurately assess company performance. Improving the quality of disclosure has been proven to increase a company's stock liquidity (Wondabio, 2007). Investors, creditors, and other stakeholders use the information in financial statements to make future economic decisions (Johnsson & Kihlstedt 2005).

Previous research shows that bankruptcy affects the integrity of financial statements (Chandra 2008; Choi & Meek 2011; Hamdan, Al-Hayale, & Aboagela 2012; Sriwati & Murwaningsari 2016). In addition, market pricing accrual (Chung, Ho, & Kim 2004; Habib, Uddin Bhuiyan, & Islam 2013; Subramanyam 1996), foreign ownership (Marwata 2001; Dwivedi & Jain 2005), and leverage (Subiyantoro & Sugiarto 1996; Gunawan 2000) affect a company's financial statements.

In accordance with previous research (Dwivedi & Jain 2005; Habib, Uddin Bhuiyan, & Islam 2013; Sriwati & Murwaningsari 2016), this study uses market pricing accrual, foreign ownership, and leverage as independent variables, while operating cash flow is the control variable. Market pricing accrual is important because it can predict future cash flows and is valuable information for investors.

The purpose of this study is to analyse whether (1) market pricing accrual, (2) foreign ownership, (3) financial distress, and (4) leverage have a significant

positive effect on financial statements' integrity. Samples were taken from the Indonesia Stock Exchange (IDX) or a combination of the Jakarta Stock Exchange (JSE) and the Surabaya Stock Exchange (BES).

2. LITERATURE REVIEW

2.1. Market Pricing Accrual and Financial Statement Integrity

Accrued income consists of (1) discretionary and (2) nondiscretionary accruals (Chung et al. 2004). Discretionary accruals represent managerial opportunism; the empirical findings of trialling the market price suggest the informative role of discretionary accruals (Guay, Kothari, & Watts 1996). Market pricing accrual is based on research by Subramanyam (1996). Discretionary accruals serve as a control of companies' non-debt renegotiation, which is not significant for the share price but is associated positively with future earnings (Habib et al. 2013).

Managerial opportunism based on discretionary accruals has low predictability regarding future cash flows; therefore investors perceive the negative information value of any component of discretionary earning (Choi & Meek 2011). Jenkins, Kane, and Velury (2009) state that accounting conservatism and the relevance of the value of earnings is higher during economic contraction, since companies generally report more conservatively to avoid a sharp rise in the risk of litigation and regulation during recessions.

2.2. Foreign Ownership and Financial Statement Integrity

In public companies where the principal as the owner of capital has less information than the agents who manage the company there are agency problems (Jensen & Meckling 1976). In general, a company's ownership structure is divided into internal and external public ownership. Regarding the value of the company, Chen (2001) states that there is positive correlation between the value of the firm, measured by Tobin's q, and the proxy concentration of ownership using the percentage of the largest shareholder. Ownership by external stakeholders increases the pressure on the company to disclose more information, especially when the external stakeholders are foreign institutions (Marwata 2001; Utama 2003; Karathanassis & Drakos 2004; Dwivedi & Jain 2005). This results in companies trying to appeal through their financial statements.

2.3. Financial Distress and Financial Statement Integrity

The failure of companies that are in a difficult financial position can be predicted (Altman 1968; Chandra 2008; Chen et al. 2017). Failing companies are likely to manipulate financial statements, whose integrity decreases. Financial difficulties can be predicted long before the bankruptcy of a company (Chandra 2008). Sriwati and Murwaningsari (2016) conclude that financial distress has a significant effect on the integrity of financial statements and corporate governance.

2.4. Leverage and Financial Statement Integrity

The greater the proportion of company debt in the capital structure the greater the agency costs (Subiyantoro & Sugiarto 1996; Gunawan 2000), and the higher the level of corporate leverage the higher the possibility of wealth being transferred from shareholders to creditors. The aim of providing information is to obtain additional funds at a low cost of acquisition debt by issuing shares for the next funding programme (Wondabio, 2007). Chen and Church (1996) show that the audit of a company in financial difficulties usually includes an opinion as to whether the company's viability will have an impact on the market reaction. The integrity of a company's financial statements, as well as its corporate governance and leverage, can attest to the company's financial condition (Sriwati & Murwaningsari 2016). Leverage is very important when assessing the company's ability to pay off its debts (Gunawan 2000): the higher the ratio, the more difficulties the company will have. Leverage variables have a significant effect on the integrity of financial statements (Subiyantoro & Sugiarto 1996; Gunawan 2000).

3. METHODS

3.1. Design

This study aims to determine the extent to which (1) market pricing accrual, (2) foreign ownership, (3) financial distress, and (4) leverage affect the integrity of financial statements. The research is based on manufacturing companies listed on the Indonesia Stock Exchange (IDX). The study is cross-sectional, and the research period is 2013–2015.

This study uses secondary data in the form of the financial statements of manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2013–2015. The IDX uses the Jakarta Automated Trading System Next

generation (JATS-NextG), provided by OMX. The IDX uses print and electronic media to communicate data on the movement of stock prices to the public. One of the indicators of stock price movement is the stock price index. The sample was taken using the purposive sampling method. The sample had to consist of manufacturing companies (1) listed on the Indonesia Stock Exchange, (2) fully operational during the relevant period, (3) never delisted from the Indonesia Stock Exchange, (4) that had not undergone a merger, (5) whose industry status did not change over the years 2013–2015, (6) whose financial statements were presented in the rupiah currency, and (7) that presented complete financial statements and were audited from 2013 to 2015. Based on these criteria, the initial sample was reduced to 363 (121 manufacturing companies over 3 years).

3.2. Variables

3.2.1. Dependent variables: Financial Statement Integrity

Data from companies' financial statements was obtained from company websites (published annual financial statements). In this study the variable 'financial statement integrity' was measured using the accounting conservatism used by Hamdan, Al-Hayale, and Aboagela (2012), i.e., the book-to-market approach. The formula for calculating the book-to-market approach is as follows:

$$\text{Book-to-Market Approach} = \frac{\left(\begin{smallmatrix}\text{Total shareholder's}\\ \text{equity}\end{smallmatrix} - \begin{smallmatrix}\text{preferred}\\ \text{stocks}\end{smallmatrix}\right) \Big/ \text{weighted} - \text{average number of share outstanding}}{\text{Closing price at the end of year}}$$

The book-to-market approach is used because it shows the difference between the company's assessment and the market. A score below 0.5 indicates greater accounting conservatism in the financial statement. When the data distribution was abnormal the score was transformed into the nominal categories of 0 for conservative financial statements (Integrity of Financial Statements – IFS) and 1 for non-conservative financial statements (Non-IFS).

3.2.2. Independent variables

The first independent variable is market pricing accrual. Market pricing accrual is measured by the model of discretionary accruals (DA) to estimate earnings manipulation used by Dechow et al. (1995). Accrual is calculated from the difference between net income and operating cash flow, using the following formula:

$$MPA_t = \alpha_0 \left(\frac{1}{Assets_{t-1}} \right) + \alpha_1 (\Delta Sales_t - \Delta Debtors_t) + \alpha_2 PPE_t + \varepsilon_t$$

where MPA_t is market pricing accrual, $\Delta Sales$ is the change in operating income from year *t-1* to *t*, $\Delta Debtors$ is the change in debtors from year *t-1* to *t*, and *PPE* is property, plant, and equipment.

The second independent variable is foreign ownership (FOWN), measured by the percentage of shares held by business entities, individuals, and foreign institutions compared to the total shares outstanding. Data was obtained from the Indonesia Central Securities Custodian (KSEI).

The third independent variable is financial distress (FDISS), measured using the bankruptcy prediction developed by Altman (1968), with the formula:

$$FDISS = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5$$

where *FDISS* is the overall index, X_1 is working capital divided by total assets, X_2 is retained earnings divided by total assets, X_3 is earnings before interest and taxes divided by total assets, X_4 is the market value of equity divided by the book value of total debt, and X_5 is sales divided by total assets.

The fourth independent variable is leverage (LEV), calculated as the ratio of company debt to company assets (total debt divided by total assets).

3.3. Research Model

Multiple regression was used to analyse the data. Statistical data was processed using *Eviews 9*. The model tests the effect of the integrity of financial statements on (1) market pricing accrual, (2) foreign ownership, (3) financial distress, and (4) leverage, as follows:

$$IFS_{it} = \beta_0 + \beta_1 LMPA_{it} + \beta_2 FOWN_{it} + \beta_3 FDISS_{it} + \beta_4 LEV_{it} + \varepsilon_{it}$$

where *IFS* is Integrity of Financial Statements, measured by the book-to-market approach (1 = Non-IFS; 0 = IFS); *LMPA* is Log Accrual of Market Pricing, measured by the difference between net income and operating cash flow; *FOWN* is Foreign Ownership, measured by percentage of shares held by business entities, individuals, and foreign institutions as compared to the total shares outstanding; *FDISS* is Financial Distress, measured by Altman's Z-Score

Model; *LEV* is Leverage, measured by long-term liabilities divided by total assets; and ε is Error.

4. RESULT

4.1. Descriptive Statistics

A total of 363 samples was computed (121 companies over 3 observation years). The data was analysed with SPSS ver.24 and is presented in the table below.

Table 1. Descriptive data

Variable	Min	Max	Mean	St. Dev
IFS	0.001165	1129.490	10.45689	60.18858
LMPA	−230.80393	9.21	106.11160	763.00153
FOWN	0.000000	100.0000	25.56672	29.53781
FDISS	−0.339562	13.95310	0.515834	1.171563
LEV	0.000000	521.2568	2.316778	29.64976

IFS: integrity of financial statements; LMPA: log of market pricing accrual; FOWN: foreign ownership; FDISS: financial distress; LEV: leverage

The IFS was then transformed into nominal categories, and the descriptive results are shown in Table 2.

Table 2. Transformed IFS score (IFS-Dummy)

Year	IFS	Non-IFS
2013	28	93
2014	35	86
2015	30	91
Total	93	270

Of the total of 363 samples, 93 had good financial statement integrity, while the other 270 did not. In 2013, 28 sample companies had good financial statement integrity, while 86 did not. The number of companies with good financial statement integrity increased to 35 in 2014 but decreased again in 2015 to 30 companies.

4.2. Results of Hypothesis Testing

The classic assumption test of the research model indicated that the model did not have multicollinearity (VIF = 1.040—1.960), heteroscedasticity (Glesjer-test = 0.000), or autocorrelation (Durbin Watson-test = 1.786). Since the IFS variable data distribution was not normal, the hypothesis testing was done using logistic regression analysis. The IFS variable was transformed into nominal data (Non-IFS = 0; IFS = 1).

Table 4. Logistic regression results for the research model

$$IFS_{DUMMY_{it}} = \beta_0 + \beta_1 LMPA_{it} + \beta_2 FOWN_{it} + \beta_3 FDISS_{it} + \beta_4 LEV_{it} + \varepsilon_{it}$$

Variable	Prediction	Coefficient	P-Value	VIF
Constant	+/-	0.4179	0.0487*	--
LMPA	+	0.0123	0.0131*	1.960
FOWN	+	0.0014	0.0980	1.040
FDISS	-	-0.0206	0.0769	1.082
LEV	-	-0.4158	0.0414*	1.166

significant at the 0.05 level

The results showed that market pricing accrual (LMPA = 0.0123; p-value = 0.0131) has a significant positive effect on financial statement integrity, while leverage (LEV = –0.4158) has a significant negative effect. Bankruptcy (FDISS = –0206; p-value = 0.0769) and foreign ownership (FOWN = 0.0014; p-value = 0.0980) do not have any significant effect on financial statement integrity.

5. DISCUSSION

The results show that good market pricing accrual positively influences the integrity of financial statements. This result is as predicted, and is also in accordance with previous research (Jenkins et al. 2009; Subramanyam 1996). When the market pricing accrual is good the company tends to be more confident in presenting their financial statements.

This study also showed that the higher the company's leverage, the more it tends to alter its financial statements. This result is also as predicted and in accordance with previous research (Subiyantoro & Sugiarto 1996; Gunawan 2000; Sriwati & Murwaningsari 2016). When the ratio of the company's leverage is high the company will experience more difficulty paying off its debts. This condition

decreases investor and shareholder confidence in the company, making it more likely that financial statements will be altered.

However, bankruptcy and foreign ownership were found to have no significant influence on financial statement integrity. This result is in contrast to some previous research. A company's level of financial distress might seem to augur an unpromising future (Altman 1968; Chandra 2008; Chen et al. 2017), but this study found the effect to be insignificant. Although foreign ownership is presumed to pressure a company to keep its financial statements clean (Jensen & Meckling 1976; Marwata 2001; Utama 2003; Karathanassis & Drakos 2004; Dwivedi & Jain 2005), this study found that effect insignificant also.

6. CONCLUSION

This study showed that market pricing accrual has a significant positive influence on financial statement integrity, while a company's leverage has a significant negative influence. Bankruptcy and foreign ownership have no significant effect on financial statement integrity.

Based on these results, when assessing the integrity of financial statements a company's stakeholders should pay more attention to market pricing accrual and the company's leverage. In addition, regulators should issue standards or guidelines governing the company's role and responsibilities regarding financial statements in order to maintain financial statement integrity.

This research used only four control variables that affect the integrity of financial statements: operating cash flow, return on assets, firm size, and firm age. Future research should address the factors that strengthen or weaken the research model as moderating variables, such as information asymmetry. Preferably, future research would involve all companies listed on the Indonesia Stock Exchange, and also add an observation period. More control variables that affect the integrity of financial statements could also be added; for example, audit quality, liquidity, and sales growth.

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