FINANCIAL PERFORMANCE INFORMATION AS FORMING CORPORATE FAILURE MODEL IN INDONESIA

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ABSTRACT

We examine indicator corporate failure based on profit or cash flows. Measuring profit or cash flow use ratio of industry. Our population is manufacturing companies listed on Indonesia Stock Exchange in 2003 to 2016. Data analysis use Multi Discriminant analysis. Based on indicators, we model corporate failure using agency theory and pecking order theory.

The research results show that information based on cash flows have accuracy level higher than information based on profit. The study also evidence that factors of funding, investment, and asset management is indicators that can be used in investigation the possibility of corporate failure. When company experience negative profit, the risk assets more funding by debt, so it can be agency problem. This finding support agency theory. Similarly when companies experienced negative cash flow, funding with equity becomes a main funding.

Keywords: Financial Performance, Profit, Cash Flow, Industry Relative Ratio, Corporate Failure.

INTRODUCTION

Financial statements are an important source of information about a firm's financial performance, financial conditions, and stewardship of resources. The statement of cash flows provides relevant information incremental to and distinct from that of the income statement and balance sheet to help users in assessing a firm's performance and future prospects. Researchers have examined the usefulness of financial statement information for financial distress prediction. These studies have reported conflicting evidence on the usefulness of the components of cash flows in predicting corporate failure. They find that operating cash flows provide signals of impending corporate failure (Ward & Foster, 1996), while investing and financing cash flows are not always indicative of corporate failure (Ward & Foster, 1997).

Whitaker (1999) ruled out any companies can be said suffering from Corporate Failure in the first year the flow of cash less than long-term obligations that is due. The flow of cash is defined as net income plus the cost of noncash. Meanwhile, Theodossiou & Kahya (1999) said that the company which experienced Corporate Failure generally experienced a decline in growth, the ability of derive profit, and the fixed assets, as well as the improvement in tiers supplies relatively of the company which healthy. Besides Corporate Failure can also be seen of weakening financial condition, a creditor who began take action, a purveyor may not send raw materials on credit, capital investment favorable may have to detachable, and the payment of dividends who is interrupted. But Scott (1981) in Lau (1987) said that the company which difficult to meet financial commitment not always lead to the bankruptcy. Thus, there is gap empirical said that corporate failure can make firm become bankrupt.

In the condition of corporate failure, the company would be faced by choice investment relatively more limited from the company in its normal condition. This limitation is caused by internal capacity of the company as well as the external conditions of a company. Altman (2005) found that a public company have experienced the problem of what is even more complicated. Prediction of financial strength of a company is generally carried out by the external company, such as investors, creditors, auditors, Government and the owner of the company. External parties the company usually react to signals of distress such as: delay delivery, product quality problems, bills from banks and others for indicating the presence of the Corporate Failure experienced by the company. By knowing the Corporate Failure experienced by the company is expected to do the actions to remedy this situation.

Apart from issues of finance variables and non financial, the issues is focused on profit or cash flow. To predict the corporate failure of company, which benefits greater or which is superior, is the corporate profits over to the company cash flow. Mccue (1991) research to predict the corporate failure of hospitals in California by comparing between profit and cash flow. Mccue (1991) research shows that more difficult to predict corporate cash flow from a failure than from a profit. Information about cash flow combinations provides users of financial statements with another approach for analyzing whether a firm is prosperous or faces financial distress. Gomez (2002) suggests that the analysis of cash flows from operating, investing, and financing activities together can show some signals of impending financial distress. In addition, Sender (2002) points out that negative (positive) total cash flow does not always signal bad (good) financial performance of firms. Sender (2002) uses the cases of Wal-Mart and Kmart to support his view. Wal-Mart has negative total cash flow due to its large investment in its business, but it is a growing and prosperous firm. In contrast, Kmart, which has reported positive total cash can manipulate cash flows as shown by the cases of Tyco, Dynegy, and the opportunities of doing so are considerably less than those of earnings manipulation under the accrual process (Sharma & Iselin, 2003). In addition, because analysts focus more attention on earnings than cash flows, managers have fewer incentives to manipulate cash flows. This study testing whether the possibility of bankruptcy can be detected through cash flow or through profit.

By acquiring model has predicted the accuracy of Corporate Failure can be used by analysts and investors. The corporate failure usually beginning with Corporate Failure in the decline financial stability for an enterprise, marked include the postponement of delivery, product quality decline, and suspension pay the bill from the bank (Platt & Platt, 2002). Therefore need to take further research to find a model to anticipate corporate failure.

LITERATURE REVIEW

Corporate Failure

Corporate Failure happen before the bankruptcy. Wruck (1990) define Corporate Failure as a situation where cash flow unable to meet to pay current liability. The referred to could have liability to suppliers raw materials, debt tax, bank debt and other obligations. But Whitaker (1999) said that a company that has financial problem in the long time. Company that experienced Corporate Failure can be seen from incident to companies are reduction dividends, plant which closed, the loss, the dismissal of work (laid off), the CEO companies and the price of a stock fell sharply (Platt & Platt, 1990). Tirapat & Nittayagasetwat (1999) said that the company said experienced Corporate Failure if the company was abandoned its over of the government authority and the company were required to make the restructuring planning.

Wilkins (1997) said that the company said experienced Corporate Failure if the company has technical default in debt and it is predicted the company has the bankruptcy in the future. Brigham & Daves (2003) said that Corporate Failure started when the company unable to meet schedule payment or when projection cash flow indicates that the company would immediately unable to fulfill its obligation. Lau (1987) and Hill et al. (1996) using the dismissal of labor or eliminate payment of the dividend.

Meanwhile Brigham & Gapenski (1994) differentiates Corporate Failure, according to type, namely economic failure, business failure, technical insolvency, insolvency in bankruptcy, and legal bankruptcy. Economic failure or a huge economic failure is a condition by which the revenue the company had no would cover the total cost, including its cost of capital. This business would be able to continue along its operation a creditor want to providing capital and the owner would want to take in the rate of return poorly under the market. Although there is no increase in new capital when assets long have had to be replaced, companies can also become economically healthy. A company is said in the state of technical insolvency if be unable to meet obligations smoothly when it matures. Inability pay off debt technically show lack of liquidity temporary, which if given time, a company might can pay debts and survive. On the other hand, if technical insolvency is the initial symptoms of a huge economic failure, this could be stop first towards financial disaster.

A company that difficult to meet financial commitment not always lead to the bankruptcy (Low et al., 2001). Technical insolvency in Brigham and Gapenski above equal to equity insolvency according to Altman (1983). Equity insolvency described if the company cannot pay the his debts as fall due in business the usual. Insolvency in bankruptcy can be done by test the balance, if total assets company lower than the amount obligation (Altman, 1968; Altman et al., 1977).

The Cause of Corporate Failure

Dun and Bradstreet research causes failure business (Brigham & Daves, 2003). The major cause is economic factors involving weakness industry and financial factors (a debt too many, capital inadequate and the other factors such as omission, disaster, and cheating. Dun and Bradstreet also found the cause of failure business per industry. Corporate Failure was due to economic distress, a decrease in industry company, and bad management. Bad management is defined as a trend of decreasing the percentage income the operations of a firm against revenue industrial operation in the last five years (Wruck, 1990; Whittaker, 1999).

Lizal make grouping cause bankruptcy and called it with a base model bankruptcy or trinity a cause of difficulty financial:

1. Neoclassical model: bankruptcy happen if resource allocation not proper.
2. Financial model: if composition assets imprecise but capital structure inherited that even though company can survive in the long run but the company must bankrupt also in the short term.
3. Corporate governance model: bankruptcy have composition assets and capital struccture that are true but managed with bad (Lizal, 2002).

Bankruptcy prediction models are more generally known as measures of financial distress include working capital and cash flow (Heffernan & Fu, 2010) factors indicates whether the growth in the revenues of a firm that can be sustained without facing a financially distressful situation (Sorheim & Landstrom, 2001) such as profit margin (operating efficiency), total asset turnover (efficiency in the use of assets), financial leverage (the use of debt versus equity to

finance assets), and profit retention (reinvestment of net income into the firm) (Healey & Palepu, 2001).

The Impact of Corporate Failure

Corporate Failure takes direct and indirect cost. The costs were not directly related to financial hardship can be more significant than the real direct cost. The cost could not directly come out in the form of cash. For example the lost sales, lost profits, lost goodwill, lost inputs, management may provide excessive attention on short-term liquidity, as trim research and development expenditure, reducing spending the cost of training, less the selling credit and the level supplies; likely to sell healthy businesses if increase the number of cash, lose vigor staff, a tendency to test workers alternatives; and offering term credit lower to customers intrinsic to cash and this led to business marketing (Net Tel Africa, 2002; Brigham & Gapenski, 1994).The indirect costs resulting from conditions of Corporate Failure is losing new project because management concentrate to the completion of financial hardship in the short term, and loss of value of enterprise when judge liquidate companies have been having net present value positive (Al-Haddad et al., 2011). The direct cost of Corporate Failure is the fees issued with respect with difficulty. For example, fee lawyer, fee accountant, fee court, time management, exertion professional another for restructured financial and report it to the creditors, interest paid company for a loan the usually is far more expensive (Hadad et al., 2011), as well as the administrative burden (Brigham & Gapenski, 1994).

Corporate Failure, Capital Structure and Agency Theory

David Durand suggested that the company can be done by three different approaches to, namely net profit approach, net operating income approach and traditional approach (Durand, 1952). Net operation income approach think that they the capital structure optimal, in other words capital structure have the effect on value of enterprise. If a company do not use debt, the cost of capital weighted average coal shows a the lowest, after that the cost of the capital increase but value of enterprise rose as use debt, but if debt raised the costs of capital weighted average coal shall be higher but sent down value of enterprise, which would mean there are capital structure optimal.

Other costs of increased debts is agency cost of debt. Agency theory said company can occur conflict between shareholders with the debt, if debt increase so conflict they can rise as potential harm debtholders increased here they will increase the supervision who can be to increase the number of accountant and increase in interest cost. Increasing debt make value of company increase. But, it is declining at some point, at that point amount of debt is optimal level. Thus MM include bankruptcy fees and the agency cost indicating the tradeoff between tax savings from debt at a cost of bankruptcy, although studies this provides a new view in capital structure but not yet can provide explanation proper on the level of ideal debt.

Zhao & Susmel (2008) subsequently testing over theories trade-off capital structure with estimated Kalman Filter approach indicating that volatility of cashflow, tangible assets, capital expand, market to book ratio significant to affect debt intended target for the trade-off non rejected. While for the trade-off rejected, the uniqueness product, profitability, z-score, capital expand and market to book ratio influence debt targeting (debt desirable).

METHODOLOGY

The population of the research is all manufacturing companies including in Indonesian Capital Markets Directory. Research sampling by using the purposive sampling method to getting a representative sample appropriate set criteria. Criteria used to sample selection is:

1. Sample is manufacturing companies in 2003-2016.
2. Sample has published the financial report audited between 2003-2016.
3. Sample is companies that meet the criteria as representative group of the company reported positive operating profit, group of the company reported negative operating profit, the company reported positive cash flow, and group of the company reported negative cash flow.

The dependent variable in this study is the profit and cash flow, which is represented in a dummy variable. Negative profit represented by 1, positive profit represented by 0, negative cash flow represented by 1, and the positive cash flow represented by 0. Cash flow cash variables are taken from that presented in the financial statements of the company has been audited. The profit used in this research is profit before tax excluding extraordinary items and discontinued operations. Profit before tax was used to avoid the influence of the use of different tax rates between the period analyzed. While the reasons for issuing the extraordinary items and discontinued operations is to eliminate elements that might lead to increased profit growth in a period that would not arise in another period. Research Model:

$$P/EBT=P/CF=1/[1+\exp-(b_0+b_1\ CR+b_2\ AR+b_3\ OM+b_4\ ROA+b_5\ TATO+b_6\ FATA+b_7\ NETFA+b_8\ TDTA+b_9\ LDTA+b_{10}\ ETA$$ .... **(Model 1)**

$$1/[1+\exp-(b_0+b_1\ CR+b_2\ AR+b_3\ OM+b_4\ ROA+b_5\ TATO+b_6\ FATA+b_7\ NETFA+b_8\ TDTA+b_9\ LDTA+b_{10}\ ETA$$ ... **(Model 2)**

Note:
EBT: Profit Before Interest and Tax, negative or positive (dummy variable).
CF : Operating Cash Flow, negative or positive (dummy variable).
CR : (Current ratio-Mean Current Ratio of Industry)/SD Current Ratio of Industry.
AR : (Acid ratio-Mean Acid Ratio of Industry)/SD Acid Ratio of Industry.
OM : (Operating Margin - Mean Operating Margin of Industry)/SD Operating Margin of Industry.
ROA: (Return on Assets-Return On Assets of Industry)/SD Return On Assets of Industry.
TATO: (Total Assets Tunover-Total Assets Turnover of Industry)/SD Total Assets Turnover of Industry.
FATA: (Net Fixed Assets Turnover-Net Fixed Assets of Industry)/SD Net Fixed Assets of Industry.
TA: (Total Debt To Total Assets-Total Debt To Total Assets of Industry)/SDTotal Debt To Total Asset of Industry.
LDTA : (Long Term Debt To Total Assets- Long Term Debt To Total Assets of Industry)/SD Long Term Debt To Total Assets of Industry.
ETA : Equity To Total Assets- Equity To Total Assets of Industry)/SD Equity To Total Assets of Industry.

FINDINGS AND ARGUMENT

Based on the results the prediction model of Corporate Failure data based on operating profit factor of funding the company's long-term debt and the management of assets being indicators of corporate failure. This suggests that the higher total Assets financed by long-term debt then the probability of a company undergoing Corporate Failure declined, so the company

should fund a long-term asset investment with long-term debt long anyway so the company can remain liquid.

The result also shows that a positive sign on the variable TDTA and significant on the Z-value statistics of more than 2% (a=5%). The higher this ratio the higher the probability of a company undergoing a Corporate Failure Appendix (Tables 1 & 2). TDTA shows the burden of funding overall operating expenses and financial burden by the company, thereby reducing the high part of the profits that can be earned and ultimately reduce part of the profit for the owner of the company. If it is associated with variable results at ETA above, then by a ratio of profits, the owners of the company should delay the high returns over its investments so as not to overly rely on debt funding (in other words, more use of funding own) so that the company can reduce the probability of occurrence of Corporate Failure. The results of this research also does not support Opler & Titman (1994) suggests that the companies that have high leverage will decline in value, especially at a time when the economy is bad (downturn).

Processed data shows that the model predictions of Corporate Failure that is formed by a ratio of cash flow to have the accuracy of prediction models. This is indicated by the value of McFadden's R-squared. Thus with the ratio of the CF, the company that has the possibility of experiencing the Failure are greater though experiencing a positive CF. With the profit ratio, probability of a company undergoing Corporate Failure could be seen on the financial statements, indicated by the presence of a negative EBIT.

Funding factors, risk and profitability became the deciding factor situations of Corporate Failure with good profit ratio as well as CF. Capital funding factor itself became an importat factor in good company with the funding ratio of profits and the ratio of the CF. A strong private equity is required to reduce the probability of occurrence of Corporate Failure good conditions the ratio of profit or Cash Flow Ratio. This results support the pecking order theory that the company needs funding so that will be the first alternate funding options are to funding. Factors of profitability over the management of the Asset becomes the deciding factor for the occurrence of Corporate Failure.

CONCLUSIONS

Model of prediction corporate failure on condition the ratio cash flow having the level of accuracy of better than the condition of the ratio profit, thus model can be early warning system for the condition corporate failure. This should serve as consideration in increase caution in invest especially in the condition of the ratio cash flow.This support the findings Baker Wurgler in 2007 which stated that in the condition of uncertainty high, investors tend to careful in making investing decision. Cash flow and profit become the basis for the study and information for investors over in making an investment decision. A Financial report help investors in evaluate the company performance. It can be seen through the size of the funding for asset and how the profit can be obtained on the use of the assets. The main concern over cash flow fixed into factors to be considered by investors.

LIMITATION

This study using sample manufacturing firm consisting of several sub industry sector. Every industry sector possessed of different characteristics. Besides that any sub sector industry having different level of growth. Because of that is characteristic of sub sector industry and the level of growth industry need to examined in the next research.

APPENDIX

Table 1
DETERMINANT FACTOR OF CORPORATE FAILURE BY PROFIT RATIO

Dependent Variable: DEBIT
Method: ML-Binary Probit (Quadratic hill climbing)
Date: 12/09/16 Time: 10:02
Sample: 2001 2014
Included observations: 1345
Convergence achieved after 5 iterations
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.473120	0.159423	-2.967708	0.0030
FATA	0.044655	0.093796	0.476083	0.6340
TDTA	0.578762	0.073090	7.918434	0.0000
LDTA	-0.277731	0.043289	-6.415738	0.0000
OM	-0.004879	0.003658	-1.333809	0.1823
ROA	-0.044870	0.010283	-4.363428	0.0000
TATO	-0.706188	0.114454	-6.170082	0.0000
ETA	-0.000420	0.001091	-0.384569	0.7006
McFadden R-squared		0.176098	Mean depende nt var	0.177695
S.D. dependent var		0.382398	S.E. of regression	0.343567
Akaike info criterion		0.782871	Sum squared resid	157.8174
Schwarz criterion		0.813825	Log likelihood	-518.4807
Hannan-Quinn criter.		0.794465	Restr. log likelihood	629.2993
LR statistic		221.6372	Avg. log likelihood	0.385487
Prob(LR statistic)		0.000000		
Obs with D ep=0		1106 Total obs		1345
Obs with Dep=1		239		

Table 2
DETERMINANT FACTOR OF CORPORATE FAILURE BY CASH FLOW

Dependent Variable: DCASH
Method: ML-Binary Probit (Quadratic hill climbing)
Date: 12/09/16 Time: 10:14
Sample: 2001 2014
Included observations: 1345
Convergence achieved after 5 iterations
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.68 7473	0.132263	-5.197781	0.0000
FATA	0.003607	0.084714	0.042576	0.9660
TDTA	0.393299	0.072117	5.453592	0.0000
LDTA	-0.083629	0.038053	-2.197710	0.0280
OM	-0.283733	0.024882	-11.40318	0.0000
ROA	-0.056671	0.012117	-4.677159	0.0000
TATO	-0.234159	0.089383	-2.619741	0.0088
ETA	-0.000529	0.001087	-0.486546	0.6266
McFadden R-squared		0.247464	Mean depende nt var	0.199257
S.D. dependent var		0.399590	S.E. of regression	0.334058
Akaike info criterion		0.763484	Sum squared resid	149.2018
Schwarz criterion		0.794438	Log likelihood	-505.4431
Hannan-Quinn criter.		0.775079	Restr. log likelihood	-671.6526
LR statistic		221.6372	Avg. log likelihood	-0.375794

Table 2 DETERMINANT FACTOR OF CORPORATE FAILURE BY CASH FLOW			
Prob (LR statistic)	0.000000		
Obs with D ep=0	1077 Total obs		1345
Obs with Dep=1	268		

REFERENCES

Al-Haddad, W., Alzurqan, S.T., & Al-Sufy, F.J. (2011). The effect of corporate governance on the performance of Jordanian industrial companies: An empirical study on amman stock exchange. *International Journal of Humanities and Social Science*, *1*(4), 55-69.

Altman, E., & Hotchkiss, E. (2005). *Corporate corporate failure and bankruptcy*, (*Third Edition*). John Wiley and Sons.

Altman, E.I. (1968). Financial ratio, discriminant analysis, and the prediction of corporate bankruptcy. *The Journal of Finance*, (23), 589-609.

Altman, E.I. (1983). Discussion on bankruptcy costs and the new bankruptcy code by Michelle J. White. *The Journal of Finance*, *38*(2), 517-522.

Altman, E.I., Brady, B., Resti, A., & Sironi, A. (2005). The link between default and recovery rates: Theory, empirical evidence, and implications additional contact information. *The Journal of Business, 78*(6), 2203-2228.

Altman, E.I., Haldeman, R.G., & Narayanan, P. (1977). Zeta analysis: A new model to identify bankruptcy risk of corporation. *Journal of Banking and Finance*, *1*, 29-54.

Asquith P., Gertner, R., & Scharfstein, D. (1994). Anatomy of financial distress: An examination of junk-bond issuers. *Quarterly Journal of Economics*, *109*(3), 625–658.

Bames, P. (1990). The prediction of takeover targets in the U.K. by means of multiple discriminant analysis. *Journal of Business Finance & Accounting*, *17*, 73-84.

Brigham, E.F., & Daves, P.R. (2003). *Intermediete financial management, (Eight Edition*). Thomson, South-Western.

Brigham, E.F., & Gapenski, L.C. (1994). *Financial management: Theory and practice, (Seventh Edition).* Dryden, Orlando, FL.

Daily, C.M., & Dalton, R. (1994). Bankruptcy and corporate governance: The impact of board composition and structure. *The Academy of Management Journal*, *37*(6), 1603-1617.

Doumpos, M., & Zopounidis, C. (1999). A multicriteria discrimination method for the prediction of financial distress: The case of Greece. *Multinational Finance Journal, 3*(2), 71-101.

Durand, D. (1952). Costs of debt and equity funds for business: Trends and problems of measurement. In *Conference on research in business finance* (215-262). NBER.

Gomez, L. (2002). Enron-A case for better understanding of cashflows. *Business Credit*.

Healy, P.M., & Palepu, K.G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal Of Accounting and Economics, 31*(1-3), 405-440.

Heffernan, F. (2010). Determinants of financial performance in chinese banking. *Applied Financial Economics 20*(20), 1585-1600.

Heffernan, S.A., & Fu, X.Q. (2010). Determinants of financial performance in chinese banking. *Applied Financial Economics, 20*, 1585-1600.

Hill, N.T., Perry, S.E., & Andes, S. (1996). Evaluating firms in financial distress: An event history analysis. *Journal of Applied Business Research*, *12*(3), 60-71.

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency cost, and ownership structure. *Journal of Financial Economics*, *3*, 305-360.

John, K, Lang, L.H.D., & Netter, (1992). The voluntary restructuring of large firms in response to performance decline. *Journal of Finance, 47*, 891-917.

Lau, A.H. (1987). A five state financial distress prediction model. *Journal of Accounting Research*, 25, 127-138.

Lizal, L. (2002). Determinants of financial distress: What drives bankruptcy in a transition economy? The Czech Republic Case. *SSRN*. Retrieved from https://ssrn.com/abstract=307224

Low, B.K., Teh, C.I., & Tang, W.H. (2001). Stochastic nonlinear p-y analysis of laterally loaded piles. *CDRom Proceedings of the Eight International Conference on Structural Safety and Reliability (ICOSSAR), Newport Beach, California, 17-22 June 2001.*

McCue, M.J. (1991). The use of cash flow to analyze financial distress in california hospitals. *Hospital and Health Service Administration*, 36, 223-241.

Opler, T.C., & Titman, S. (1994). Financial distress and corporate performance. *The Journal of finance*, *49*(3), 1015-1040.

Platt, H., & Platt, M.B. (1990). Development of a class of stable predictive variables: The case of bankruptcy predictions. *Jurnal of Business Finance & Accounting*, 17, 31-51.

Platt, H., & Platt, M.B. (2002). Predicting financial distress. *Journal of Financial Service Professionals*, *56*, 12-15.

Poston, K.M., Harmon, W.K., & Gramlich, J.D. (1994). A test of financial ratios as predictors of turnaround versus failure among financially distressed firms. *Journal of Applied Business Research, 10*, 41-56.

Scott, J. (1981). The probability of bankruptcy: A comparison of empirical prediction and theoretical model. *Journal of Banking and Finance*, *5*, 317-344.

Sender, H. (2002). Cash flow? it isn't always what it seems. *Wall Street Journal, 239*(90).

Sharma, D.S., & Iselin, E.R. (2003). The decision usefulness of reported cash flow and acrrual information in a behavioral field experiment. *Accounting and Business Research, 33*(2), 123-135.

Sørheim, R., & Landström, H. (2001). Informal investors-A categorization, with policy implications, *Entrepreneurship & Regional Development: An International Journal, 13*(4), 351-370.

Theodossiou, P., Kahya, E., Saidi, R., & Philippatos, G. (1996). Financial distress and corporate acquisitions: Further empirical evidence. *Journal of Business Finance and Accounting*, *23*, 699-719.

Tirapat, S., & Nittayagasetwat, A. (1999). An investigation of thai listed firms' financial distress using macro and micro variables. *Multinational Finance Journal, 3*, 103-125.

Trisnawati, R. (1998). *Faktor-faktor yang mempengaruhi initial return*. Program Magister Sains. UGM. Yogyakarta.

Vasiliou, D. (2008). Institutional characteristics and capital structure: A cross-national comparison. *Global Finance Journal, 19*(3), 286 -306.

Ward, T.J., & Foster, B.P. (1996). An empirical analysis of thomas's financial accounting allocation fallacy theory in a financial distress context. *Accounting and Business Research*, *26*(2), 137-152.

Ward, T.J., & Foster, B.P. (1997). A note on selecting a response measure for financial distress. *Journal of Business Finance and Accounting*, *24*(6), 869-879.

Whitaker, R.B. (1999). The early stages of financial distress. *Journal of Economics and Finance, 23*, 123-133.

Wilkins, M.S. (1997). Tehnical default, auditors' decisions and future financial distress. *Accounting Horizons, 11*(4), 44-48.

Wruck, K.H. (1990). Financial distress, reorganization, and organizational efficiency. *Journal of Financial Economics, 27*(2), 419-444.

Zhao, T., & Susmel, R. (2008). Testing the trade-off theory of capital structure: A kalman filter approach. *SSRN*. Retrieved from https://ssrn.com/abstract=1303209

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