



The Effect of Liquidity, Leverage, and Operating Capacity on Financial Distress with Managerial Ownership as a Moderating Variable

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ARTICLE INFO

Article History:

Received Agustus 15, 2019

Accepted October 10, 2019

Available November 30, 2019

Keywords:

liquidity; leverage; operating capacity; managerial ownership; financial distress

ABSTRACT

This study intends to examine the effect of liquidity, leverage, and operating capacity ratio on financial distress risk with managerial ownership as moderator. The population of this study was all of the property, real estate and construction services companies listed on the IDX in 2013-2017 as many as 55 companies. This study used purposive sampling technique for the selection of samples that produced 17 companies or 68 analysis units. Moderation regression was used as analytical method in this study with SPSS 23 as the analytical tool. This research shows that liquidity does not affect on financial distress risk, while leverage and operating capacity affect on financial distress risk. Managerial ownership is able to moderate the effect of leverage ratio and operating capacity on financial distress risk, but is not able to moderate the effect of liquidity on financial distress risk. The conclusion of this study is that the financial distress risk is influenced by leverage, operating capacity, leverage moderated by managerial ownership, and operating capacity moderated by managerial ownership.

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INTRODUCTION

The widespread effects of globalization have led to increasingly fierce business competition. An experienced business will be benefited more, but a business that cannot adapt will have difficulty competing with foreign companies. This will lead the company to many problems, one of which is poor financial health (financial distress) so that it can lead to bankruptcy.

Financial distress is a situation when a company faces deteriorating financial health. Khaliq (2014) explains financial distress, which is a situation when a company is unable to pay off its financial obligations to creditors. This is due to a lack of funds in the company to fulfil its obligations which results in not achieving the company's economic goals, that is profit.

Weakening purchasing power of the people in the property sector results in businesses actors in the property sector having difficulty in selling their products. This causes the property, real estate and construction services sectors to experience a crisis. The results of Bank Indonesia survey show that from the first quarter of 2014 to 2017, the Residential Property Price Index (IHPR)

experienced a growth deceleration, where the growth was only 1.45% (qtq) or 7.92% (yoy) slowing down compared to the previous quarter (1.77%, qtq) or (11.51%, yoy). This was supported by a slowdown in home sales growth in the second quarter of 2015 to 2017, where the number of residential property sales fell from 26.62% in the first quarter of 2015 to 10.84% in the second quarter of 2015, this continued until the end of 2017 (Bank Indonesia, 2017).

Based on the report on the movement of the Composite Stock Price (CSPI) issued by the IDX, the property, real estate, and construction services companies faced a crisis starting in 2015 until the peak occurred in 2018 which fell to -9.64%. The weakening of people's purchasing power makes property investment move slowly. This condition is further exacerbated by expensive property prices so that people in the community have difficulty reaching them. This causes the property, real estate and construction services companies to experience a decline in operating income, and even some property companies cease operations due to drastic decreased sales. This is because the supply of houses that have already been built is not absorbed by the market. When this continues and there is no attempt to avoid it, the companies in the property, real estate, and construction services sector are threatened with financial distress.

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Wang & Deng (2006); Khaliq (2014); Ufo (2015); Widhiari & Merkusiwati (2015); Luqman (2018), Udin et al. (2016) and Kristanti et al. (2016) conduct research on various factors that influence the risk of financial distress such as financial ratio, sales growth, ownership concentration, ownership structure, size of directors, CEO quality, auditor quality, independent commissioners, and company size. Based on various previous studies, there are still inconsistencies in the results of various factors that cause financial distress, so these factors are still interesting to be studied. Liquidity ratio, leverage, and operating capacity are used as independent variables in this study and add managerial ownership as a moderating variable.

Studies conducted by Hanifah & Purwanto (2013); Kristanti et al. (2016) and Udin et al. (2016) reveal that leverage affects positively on the risk of financial distress. Khaliq (2014) and Alifiah (2014) prove that leverage has a negative effect on financial distress. Prasetyo & Fachrurrozie (2016); Restianti & Agustina (2018) as well as Cinantya & Merkusiwati (2015) find leverage does not have an effect on the risk of financial distress.

Studies conducted by Khaliq (2014); Thim et al. (2011) and Ufo (2015) prove that liquidity has a negative effect on the risk of financial distress. Triwahyuningtias & Muharam (2012) as well as Astuti & Pamudji (2015) find that liquidity has a positive effect on financial distress. Prasetyo & Fachrurrozie (2016); Restianti & Agustina (2018) as well as Kristanti et al. (2016) find liquidity has no effect on the risk of financial distress.

Studies conducted by Widhiari & Merkusiwati (2015); Antikasari & Djuminah (2017) as well as Hanifah & Purwanto (2013) find that operating capacity has a negative effect on the risk of financial distress. Kholidah & Mufidah (2016); Dewi et al. (2017) as well as Rahmawati & Hadiprajitno (2015) find operating capacity has no effect on the risk of financial distress.

This study intends to examine the effects of liquidity ratio, leverage, and operating capacity on financial distress with managerial ownership as the moderating. The originality in this study is to present managerial ownership as the moderating variable. Managerial ownership is the share owned by management of all outstanding shares.

Based on agency theory, managerial ownership can reduce agency conflict within a company. When management acts as the owner, then the risk of the company is also the responsibility of management. Therefore, management will improve its performance in order to keep the company away from the threat of financial distress.

Agency theory is used as the main theory in this study. Agency theory proposed by Jensen & Meckling (1976) discusses the interactions that occur between principal and agent, where the principal delegates the authority of decision making to the agent. This theory also explains that all individuals have their own interests and act according to their own interests. That causes a conflict of interest because there is information asymmetry between the agent and the principal.

Liquidity is a ratio that shows corporate perfor-

mance related to the settlement of current liabilities. The higher the level of liquidity, the more liquid the company is (Lakshan & Wijekoon, 2013). Agency theory regarding human nature assumptions explains that management and agents have self-interest. Debt due which occurs currently is a consequence of the agent's decision in the past to credit creditors.

If a company has a large amount of short-term debt, it will cause a low level of corporate liquidity. Therefore, it is necessary to trace management's performance whether there is an error in managing the company or as a result of making decisions that are only concerned with personal interests that lead the company to financial distress.

Financial distress in this study is known from the value of the Interest Coverage Ratio (ICR) which shows the extent of the health level of corporate finance. When a company has a high level of liquidity, it means that the financial health of the company is getting better as shown by the greater ICR value. Because the ICR value is getting bigger, it means the risk company experiences financial distress is lower. This shows that liquidity has a positive effect on the company's ICR value, which means it will minimize the risk of financial distress in a company. Research conducted by Thim et al. (2011); Jiming & Weiwei (2011); Alifiah (2014) and Ufo (2015) show result that liquidity has a negative effect on the risk of financial distress.

H₁: The higher the level of liquidity, the lower the risk of a company's financial distress

Leverage is a ratio that assesses how much corporate wealth is financed by debt. Jensen & Meckling (1976) explains that the use of corporate debt will incur agency costs. When the amount of corporate debt is large, the agency costs incurred will also be even greater. If this is not followed by a good ability to pay debts, the company will face the threat of financial crisis. If this cannot be secured, the possibility of financial distress is also greater.

Referring to agency theory, all decision-making authority for the survival of the company rests entirely with the agent, including the decision to seek funding from third parties. When a company has a large amount of debt, it is necessary to trace the performance of the agent whether there is an error in decision making or management makes decisions based on personal interests. This is in accordance with the assumptions about humans in agency theory which states that humans have self-prioritizing nature. So that decision making made by management is only self-interest and overrides the interests of the owner, such as the use of large debts that will increase the potential for financial distress.

When a company has a high level of leverage, the company's financial health gets worse as indicated by the lower ICR value. Because the ICR value is getting lower, then the risk of the company occurring financial distress is getting higher. This shows that leverage has a negative effect on the company's ICR value, which means it will increase the risk of the company's financial distress. Ong'era et al. (2017); Kristanti et al. (2016) and

Udin et al. (2016) prove leverage has a positive effect on the risk of financial distress in a company.

H₂: The higher the level of leverage, the higher the risk of a company's financial distress

Operating capacity measures the operational efficiency of a company that shows how much the ability of assets that are able to create sales. Agency theory explains that agent is the party responsible for managing the company. The agent is required to maximize the use of assets to increase corporate sales. When the company's assets cannot be utilized optimally, the company's profits will not be optimal, resulting in a greater risk of corporate financial distress. Conversely, if management is able to optimize the company's assets properly, the company's revenue will be greater so that it will keep the company from financial distress condition.

If the company has a high level of operating capacity, the company's financial health will improve as indicated by the higher ICR value. Because the ICR value is getting higher, then the risk of the company occurring financial distress will be lower. This shows that operating capacity has a positive effect on the company's ICR value, which means it will reduce the risk of the company's financial distress. Previous research conducted by Antikasari & Djuminah (2017); Prasetyo & Fachrurrozie (2016); as well as Hanifah & Purwanto (2013) find that operating capacity has a negative effect on the risk of financial distress.

H₃: The higher the level of operating capacity, the lower the risk of a company's financial distress

Low liquidity can cause agency problems and lead the company to financial distress condition. Referring to agency theory, agency problems in the company can be minimized by encouraging management to act in accordance with the interests of stakeholders. This can be done by increasing managerial ownership. When managers take responsibility the risk of the company, managers will make decisions more carefully so that it is expected to make the company better. One of the actions taken by management is to increase corporate liquidity through reducing short-term debt. Management will try to avoid future risk of financial distress that begins with liquidity problems. This will reduce the potential for financial distress.

H₄: Managerial ownership is able to moderate the effect of liquidity on the risk of financial distress

Leverage shows how much debt a company has compared to its assets. Referring to agency theory, using too much debt can lead to agency costs. When the amount of corporate debt is large, the agency costs incurred will also be even greater. The risk of financial distress is even greater if this has not been followed by the good ability to pay debt. The risk of financial distress can be reduced by the presence of managerial ownership in the company. According to agency theory, when there is managerial ownership within the company, the company's risk which is initially only the responsibility

of the owner, also becomes the responsibility of management. When the company has a high level of debt, the management will try to optimize the use of debt to create high operating profits. This will reduce the risk of corporate financial distress due to high debt levels.

H₅: Managerial ownership is able to moderate the effect of leverage on the risk of financial distress

Operating capacity shows how much the company's ability in utilizing its assets to create sales. The high value of operating capacity shows that the company can utilize its assets efficiently to generate large sales and is expected to create high operating profits as well. This is able to free the company from financial distress. Referring to agency theory, the agent has the authority and responsibility to make the maximum profit possible by optimizing the utilization of company resources. The existence of managerial ownership within the company makes management act as the owner of the company. They will try to increase production by optimizing asset turnover for the company's operating activities. When the use of assets can be optimized as well as possible to generate sales, the risk of the company occurring financial distress will be lower.

H₆: Managerial ownership is able to moderate the effect of operating capacity on the risk of financial distress

RESEARCH METHOD

This study was quantitative research using secondary data. The population of this research was the property, real estate, and construction services companies listed on the Indonesia Stock Exchange in 2013-2017 as many as 55 companies. The property, real estate, and construction services sector experienced a decline in investment during the period due to the weakening of people's purchasing power in property products. Purposive sampling was used as a sample determination method that obtained 17 sample companies over a five-year study period so as to produce 85 analysis units. The total data in this study was reduced by outlier data by viewing a box plot diagram of 17 observation units so that 68 final analysis units are obtained. The criteria for determining the sample in this study are presented in Table 1.

This study used liquidity ratio, leverage, and operating capacity as independent variables as well as managerial ownership as a moderating variable. The dependent variable in this study is the risk of financial distress. Table 2 shows the operational definitions of the research variables.

Interest Coverage Ratio (ICR) was used as a proxy for financial distress variable that shows the level of corporate financial health. Therefore, the effect of financial ratios on the company's ICR value will be inversely proportional to the risk of the company's financial distress.

The data collection technique in this study was a documentation technique on financial reports issued by the property, real estate, and construction services companies available on the official website of IDX for the

Table 1. Sample Determination Criteria

No.	Criteria	Beyond the Criteria	Meeting the Criteria
1.	Property, real estate, and construction services companies listed on the Indonesia Stock Exchange in 2013-2017		55
2.	Property, real estate, and construction services companies listed on the IDX successively in the 2013-2017 period.	(3)	52
3.	Companies that publish annual reports in a row for 2013-2017.	(1)	51
4.	Property, real estate, and construction services companies that have managerial ownership data needed in this study.	(34)	17
	Total companies that become research samples		17
	Total research data for 2013-2017		85
	Total outlier data throughout the study period		17
	Total unit of analysis (2013-2017)		68

Source : Data processed, 2019

Table 2. Operational Definitions of Research Variables

No	Variables	Definition	Measurement	Scale
1.	Financial Distress (ICR)	The situation when a company faces financial difficulties before bankruptcy occurs (Platt & Platt, 2002)	$ICR = \frac{EBIT}{Interest\ expense}$ (Wardhani, 2007)	Ratio
2.	Liquidity (CR)	Ratio that assesses the extent to which the company's performance in financing its operations and paying its current debt (Hanifah & Purwanto, 2013)	$CR = \frac{Total\ current\ assets}{Total\ current\ debts}$ (Lakshan & Wijekoon, 2013)	Ratio
3.	Leverage (DAR)	Ratio that assesses how much the company's assets are funded by debt (Kasmir, 2015)	$DAR = \frac{Total\ debt}{Total\ asset}$ (Al-Khatib & Al-Horani, 2012)	Ratio
4.	Operating Capacity (TATO)	Ratio that assesses how much effectiveness the company has in using its assets (Kasmir, 2015)	$TATO = \frac{Total\ sales}{Total\ asset}$ (Kasmir, 2015)	Ratio
5.	Managerial Ownership (KepMan)	The percentage of shares held by management of the total shares outstanding (Triwahyuningtias & Muharam, 2012)	Managerial ownership = $\frac{\sum\ shares\ owned\ by\ directors/commissioner}{\sum\ outstanding\ shares} \times 100\%$ (Wardhani, 2007)	Ratio

Source: Various sources processed, 2019

period 2013-2017. The data analysis tool used was IBM SPSS 23. Moderated regression analysis (MRA) was used as a hypothesis testing tool through the value of the absolute difference test so that the data is converted into standardized values (ZScore). The classical assumption test was carried out first before carrying out the hypothesis test. Regression testing used the t test at $\alpha = 5\%$. The model used in the study is stated in terms of Equation 1.

$$ICR = \alpha + \beta_1 ZCR + \beta_2 ZDAR + \beta_3 ZTATO + \beta_4 |ZCR - ZKepM| + \beta_5 |ZDAR - ZKepM| + \beta_6 |ZTATO - ZKepM| + e \dots \dots \dots (1)$$

RESULTS AND DISCUSSIONS

Descriptive statistical analysis in this study is used to describe the maximum, minimum, mean and standard deviation values for each variable in the study. Table 3 shows the results of descriptive statistical test in this study.

The classical assumption test in this study is the test for normality, multicollinearity, heteroscedasticity, and autocorrelation. The normality test shows a significance value of $0.200 > 0.05$, so it can be said the data has a normal distribution. The multicollinearity test shows that all variables have a VIF value of < 10 and a toleran-

Table 3. Results of Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
ICR	68	-3.732	15.879	3.90926	3.990380
CR	68	0.208	3.190	1.53644	0.625887
DAR	68	0.085	0.744	0.46934	0.148280
TATO	68	0.10	1.353	0.41525	0.337888
Kep_Man	68	0.0000002	0.5100000	0.043459609	0.0995297558
Valid N (listwise)	68				

Source: Secondary data processed, 2019

ce value of > 0.01 , so that all variables can be interpreted in this study free from multicollinearity symptoms. The heteroscedasticity test uses white test shows the value c^2 count (19.448) $< c^2$ count (87.10807) so that conclusions can be drawn that heteroscedasticity does not occur in this regression model. The autocorrelation test using the Durbin-Watson (DW) test shows the DW number (1.947) where this number is greater than dU (1.7001) and smaller than the 4-1.700 (1.7001 $< 1.947 < 2.2999$), so that conclusion can be drawn is there is no autocorrelation in this study.

The adjusted R^2 value in this study is 0.231. This can be interpreted as the magnitude of the effect of variations in the variables of liquidity, leverage, operating capacity, and managerial ownership as moderating on financial distress is 23.1%. While the remaining 76.9% value is explained by other variables outside the model. The regression equation for this study is stated in the form of Equation 2.

$$\text{ICR} = 5.180 - 0.129\text{ZCR} - 1.397\text{ZDAR} + 3.908\text{ZTATO} + 0.479|\text{ZCR-ZKepM}| + 1.766|\text{ZDAR-ZKepM}| - 3.614|\text{ZTATO-ZkepM}| \dots \dots \dots (2)$$

The result of hypothesis test uses a significance level of 0.05 can be known in the following table 4:

The Effect of Liquidity on the Risk of Financial Distress

Liquidity assessed through the current ratio does not affect the risk of financial distress. The result of this study is not in accordance with agency theory, where this theory states that high liquidity does not necessarily reduce the risk of financial distress. The insignificant liquidity variable is suspected because of the large value of the company's inventory in the property and real estate sector. Type of property and real estate business is the sales and leasing of land and buildings, therefore current assets in this sector are dominated by the large amount of inventory owned. In this case, the inventory is also used to pay off current liabilities; it takes a quite long time to convert them into cash. Therefore, any level of corporate liquidity cannot be used as a measure to influence the risk of financial distress in the future.

This is supported by the results of descriptive statistical test in table 3 which states that the average liquidity is 1.5, which means the companies are in liquid state. Therefore, the cause of liquidity does not affect the risk of financial distress presumably because the short-term debt owned by the companies can be directly covered by its current assets. The result of this study is consistent with the research conducted by Lakshan & Wijekoon (2013); Alifiah (2014) as well as Kristanti et al. (2016) which explain liquidity does not affect the company's financial distress.

The Effect of Leverage on the Risk of Financial Distress

The result of this study proves the higher the level of corporate leverage, the higher the risk of finan-

cial distress occurs. Leverage has a negative effect on the company's ICR value. Due to the small ICR value, the level of corporate financial health is seen as getting worse, so the risk of financial distress is higher. It can be concluded that a high level of leverage can lead to a high risk of distress.

This is in line with the agency theory which explains when the amount of corporate debt is at a large amount, the agency burden that arises even greater. If this is not followed by a good ability to pay debts, then the corporate financial health is also in a bad condition, so the risk of financial distress is greater.

The company that wants additional debt must be balanced with readiness in increasing its assets. When a company cannot bring additional assets in order to compensate large debts, the company will face financial distress. The result of this study is in accordance with previous studies conducted by Khaliq (2014); Kristanti et al. (2016) as well as Lakshan & Wijekoon (2013) which proves the higher the level of leverage, the greater the risk of financial distress.

The Effect of Operating Capacity on the Risk of Financial Distress

This study proves that the higher the value of corporate operating capacity, the lower the risk of financial distress. Operating capacity has a positive effect on the value of corporate ICR. Companies which have higher ICR value are considered to have the higher level of financial health, so that the risk of financial distress is getting smaller.

Theory agency states that agents have full responsible for decisions in the management of corporate assets. The more effective management performance in using corporate assets to create sales, the greater the benefits the company will get. This has an impact on the company's financial health which is getting better so that it will reduce the risk of financial distress. The result of this study is in line with the studies conducted by Alifiah (2014); Hanifah & Purwanto (2013) as well as Widhiari & Merkusiwati (2015) which state the higher the level of operating capacity will minimize the potential for financial distress.

The Effect of Liquidity on the Risk of Financial Distress Moderated by Managerial Ownership

This study states managerial ownership is not able to moderate the effect of liquidity on the risk of financial distress. This is not in line with agency theory which explains the existence of managerial ownership will result in managers making more careful decisions. One of the decisions that can be taken is to improve its short-term debt policy by increasing its liquidity ratio which in turn will lead the company away from the risk of financial distress.

Managerial ownership in a company is not able to moderate the effect of liquidity on the risk of financial distress. This is because property companies have large current asset values that can directly cover their current debt. The size of the company's current assets value is

presumably due to the large value of the property sector's inventory, causing its current asset value to become large. Therefore, whether there is managerial ownership in the company or not, the company will still have a large current asset value. This is in accordance with the result of descriptive statistics which shows an average liquidity of 1.5, which means the value of the company's current assets is far greater than its current debt.

The Effect of Leverage on Financial Distress Risk Moderated by Managerial Ownership

The result of this study proves that managerial ownership successfully moderates the effect of leverage on the risk of financial distress. A positive direction on the value of the regression coefficient after the existence of the moderating variable indicates the direction of the moderating variable is weakening the negative effect of leverage on the company's ICR value. This is in line with agency theory which explains that the existence of managerial ownership can minimize agency problems. The interests of management and owners to be in harmony, so the decisions taken by management are decisions that are expected to increase the value of the company.

A high level of debt in the company will increase management's sense of responsibility for the debt. Management will utilize its total debt optimally by developing and diversifying its business so as to increase profits and company value that can prevent the company from the threat of financial distress. So that it can be concluded, the existence of managerial ownership in the company is able to reduce the risk of financial distress due to high level of corporate debt.

Managerial Ownership Moderates the Effect of Operating Capacity on the Financial Distress Risk

The result of this study proves that managerial ownership successfully moderates the effect of operating capacity on the risk of financial distress. The negative direction on the value of the regression coefficient after the existence of the moderating variable indicates that the direction of the moderating variable is weakening the positive effect of operating capacity and on the company's ICR value. This is assumed to occur because of high level of company transactions carried out without regard to corporate growth and financial health, causing over trading at the company. This occurs because high asset turnover is not balanced with large working capital and cash. Most of the property, real estate, and construction services companies have sales values that are greater than their working capital. This causes a high level of operating capacity but there is not enough working capital, so it leads to the possibility of financial distress. The existence of managerial ownership in the company does not always guarantee that it will reduce the risk of financial distress. Management is too focused on increasing sales without regard to financial health so that it leads the company to financial distress.

CONCLUSIONS

This study intends to examine the effects of corporate financial ratios on financial distress risk by including managerial ownership as moderation in the property, real estate, and construction service companies listed on the Indonesia Stock Exchange in 2013-2017. This research proves that liquidity does not affect the risk of financial distress. Conversely, leverage and operating capacity affect financial distress risk. Managerial ownership is not able to moderate the effect of liquidity on the risk of financial distress. Conversely, managerial ownership is able to moderate the effect of leverage on the risk of financial distress and the effect of operating capacity on the risk of financial distress.

Current ratio is used as a measure of liquidity variable, the result of the study finds that liquidity calculated through the current ratio does not affect the risk of financial distress. This is because the current assets in the property, real estate, and construction services sector dominated by the amount of inventory owned, while in this case, the inventory is also used to pay off current liabilities but requires a long period of time to convert them into cash. Thus, further research is recommended to use other measurements in measuring liquidity ratio such as using a quick ratio, this is because the quick ratio shows how far the company's ability to pay its current liabilities without calculating the value of inventory which is long enough to be converted into cash.

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