

## **The Influence Firm Size on Financial Distress: A Research on Agricultural Companies Listed in Indonesia Stock Exchange**

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**Abstract:** The purpose of this research is to analysis the influence of firm size on financial distress in agricultural companies listed in Indonesia stock exchange from 2012-2014. Altman Z's score, net profit margin, cash ratio and natural logarithm total assets are used as the proxy of financial distress and firm size. Through purposive sampling method, 18 companies were used as a sample in this research. Data used in this research were secondary ones which obtained from company's financial statement and Indonesian Capital Market Directory (ICMD) from 2012-2014. The analysis methods of this research is used multiple regression analysis. The result is showed that firm size have effect but no significant towards financial distress.

**Key words:** Financial distress, Altman Z's score, firm size, assets, company, regression

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### **INTRODUCTION**

Management as a party that runs the operational processes the company must be good at seeing the condition of the company if the company is in a healthy zone or in financial difficulty (financial distress). Financial distress, according to Bringham and Daves (2003), occurred before the company faced bankruptcy or failure marked when the company can not meet the payment schedule or when the cash flow projections indicate that the company will soon be unable to meet its obligations. Financial distress can arise due to the influence of the company's own (internal) and external sources (external). Damodaran (1977) stated, cause financial distress of the company is more micro. Factors internal microstructure of the parties is the cash flow difficulties, the large amount of debt and losses in the operations of the company for several years. Some research have been trying to create a model of financial distress. Initially research on financial distress using univariate statistical techniques by Beaver (1966). Beaver in this study using univariate analysis, namely financial ratios for predicting bankruptcy of a company. Selection is based on the ratio of its popularity in the literature, performance ratios in previous research and its proximity to the concept of cash flow (cash flow). Using 30 financial ratios which are grouped into six major groups (cash-flow ratio, net income ratios, debt-to-total-assets ratios, liquid-assets to total-assets ratios, liquid-assets to current debt ratios, turnover ratios). Research results are contained five

financial ratios that have an error rate below 24%, namely: cash flow/total debt, net assets/total assets, total debt/total assets, working capital/total assets and current ratio. But the weakness of the study is the use of Beaver univariate analysis that can not be the creation of a model that can simultaneously be used to predict the failure of the company (Iramani, 2008).

Model financial distress then further developed using multivariate discriminant analysis by Altman (1968). The discriminant analysis is a statistical technique to identify several kinds of financial ratios that are considered most important in influencing the value of an event and then develop it into a model with a view to facilitate the exciting conclusion of an event. The first study by Altman (1995) have an object that manufacturing companies listing on the stock market. Altman (1983) make revisions to the model, so that, it can be used not only for a manufacturing company listings but also can be applied in the private sector.

Storey in Dylan also stated that the factors that affect the bankruptcy of one of them is the size of the company. Companies that have a larger size tend to avoid bankruptcy. The size of the company can be seen from the total assets. This is in line with the definition of financial distress that disclosure by Kahya and Theodissiu (1999) that one of the characteristics of companies experiencing financial difficulties is a decrease in total assets or in other words, a decrease in the size of the company. State of Indonesia is known as an agricultural country. Agricultural country is a country in which most

livelihoods of the population was in agriculture. New order era was the golden era for Indonesian agriculture. This is evidenced by the award of the World Health Organization in 1984 on self-sufficiency. Even during the economic crisis of 1997-1998, the agricultural sector's contribution to GDP actually increased from 47-52.5% (Tanti, 2010). Will however, it contradicted the current food situation in Indonesia who can't meet the needs and reserves, so, food importing countries.

Province in Indonesia which has the largest agricultural enterprises according to the Central Statistics Agency (BPS), located in the province of North Sumatra, West Java and East Java. Business success in agriculture has a close relationship with the state of the climate. Indication of the climate change phenomenon can be observed from changes in rainfall patterns. The drop in oil prices was also followed by a sharp decline in prices of other commodities, especially, metals, minerals and agricultural products. Indonesian exports vulnerability to shocks in external conditions are actually not independent of the characteristics contained in Indonesia's export commodities. With the main export destination countries that tend to be concentrated in a single country as well as the type of export commodities in general are relatively less diversified, the impact of the global crisis on exports to be very significant. The intensity is also likely to deteriorate in line with the sharp contraction in the world economy. The sectors most affected by the global crisis is the sector that rely on external demand (tradable) such as manufacturing, agriculture and mining.

Companies in the agricultural sector contained in the Indonesia Stock exchange is dominated by the oil palm company. After the 2008 global financial crisis, the price of palm oil is still showing a downward trend until 2015. The impact of the economic crisis and climate change is happening is if not addressed can lead to potential bankruptcy in agricultural enterprises. It's important for the owners of capital, management and investors to determine the position of the company's financial condition in order to determine the company's strategy for the future. Almilia and Meliza (2003) in the journal financial ratio analysis to predict financial distress in manufacturing company concluded the most influence on the ratio of financial distress is the current ratio, net profit margin, net income growth. Subsequent studies by Atmini has the result that cash flow does not have a strong influence on the financial distress. There is a difference with the research Imam Mas'ud which examined the financial ratio analysis to financial distress at a manufacturing company with a current ratio results did not affect the financial distress. The ratio of net profit margin also had no effect on the financial distress research by Yuniarti (2012).

## **Literature review**

**Firm size:** Firm size (the size of the company) illustrates the size of the total assets owned by a company. Firm size is the size of the company. The bigger the company access to funds will be more easily, so that, the agency costs will be even greater. Kim and Jang using the total assets in determining firm size by proxy natural logarithm of total assets. Large companies generally have better access to capital markets and it is easier to increase the funds with lower costs and fewer constraints than the smaller companies, this shows that reliance on internal funds will decrease with the increasing size of the company. Companies that have high asset indicates that the company has reached a stage. Like the assets owned by agricultural companies have differences with the company engaged in the other. The difference can be seen from their activities as well as the management of the biological transformation on the plant to produce a product that can be consumed or processed further. In general because of its unique characteristics, a company engaged in agriculture has a significant possibility to convey information in the financial statements are more comparable with the company engaged in the other, especially, in terms of recognition, measurement, presentation and disclosure about its fixed assets.

**Financial distress:** Financial distress is a condition in which the company is facing financial difficulties problem. According to Platt and Platt (2002) defined as the stage of financial distress financial downturn that occurred prior to the bankruptcy or liquidation. Financial distress drawn from the company's inability or unavailability of a fund to pay for obligations that have matured. Financial difficulties began when the company can't meet the payment schedule or when the cash flow projections indicate that the company will soon be unable to meet its obligations (Brigham and Daves, 2003). There are several definitions of financial difficulties, according type, namely economic failure, business failure, technical insolvency, insolvency in bankruptcy and legal bankruptcy (Brigham and Gapenski, 1996).

**Economic failure:** Economic failure or economic failure is a situation where the company's revenues can not cover the total cost including the cost of capital. The business can continue to operate throughout the lenders would provide capital and its owner will accept return rate (rate of return) in the bottom of the market. Although, there is no injection of new capital assets when parents had to be replaced, the company can also be economically viable, new capital assets when the parents had to be replaced, the company can also be economically viable.

**Business failure:** Business failure is defined as a business that ceased operations with consequent losses to creditors.

**Technical insolvency:** A company is said to be in a state of technical insolvency if it can't meet current liabilities as they fall due. Inability to pay the debt technically indicate a temporary lack of liquidity which if given the time, the company may be able to pay its debts and survive. On the other hand, if the technical insolvency are the first signs of economic failure, this may be the first step toward financial disaster.

**Insolvency in bankruptcy:** A company is said to be in a state of insolvent in bankruptcy if the debt book value exceeds the market value of assets. This condition is more serious than technical insolvency because generally, it is economic failure sign and even lead to the liquidation of the business. Businesses in insolvent circumstances in bankruptcy does not need to be involved in bankruptcy claims legally.

**Legal bankruptcy:** Companies say bankruptcy law if it has been filed formally with the demands of the legislation (Brigham and Gapenski,1996).

**Factor s contributing to financial distress:** Damodaran (1977) the causes of financial distress of the company is more micro. The factors of the companies are.

**Difficulty cash flow:** Occurs when the revenue receipts of the company's results of operations are not enough to cover expenses arising from activities of business operations. In addition to the cash flow difficulties can also be due to the fault of management when managing the company's cash flow, in paying the company's activities which can worsen the company's financial condition.

**The amount of debt:** Debt collection policy of the company to cover the costs resulting from the company's operations will create liability for the company to return the debt in the future. When bills are due while the company did not have sufficient funds to pay the bills, then it is likely that creditors do is perform the confiscation of the company to cover the payment of the charge.

**Losses in company operations for several years:** In this case the operational losses of companies which can give rise to a negative cash flow in the company. This can occur because the operating expense is greater than the income received by the company.

Although, a company can solve three problems mentioned above is not necessarily the company can

avoid financial distress, it is because there are external factors that can lead to financial distress. Damodaran (1977) external factors more macro level where the scope is wider. The external factors may include government policies that can increase operating expenses borne by the company such as increasing tax rates can increase the burden on companies. In addition, there is a policy loan interest rate increases which could lead to an increase in the interest expense of the company. Storey in Dylan also stated that the factors that affect bankruptcy, namely:

- Age of the company, the longer the company exists, the less likely bankruptcy
- The size of the company, the larger the company, the less likely bankruptcy
- Growth, growth companies are more likely to survive
- The macroeconomic conditions, the failure rate increased during the recession
- Sector, the failure rate is high in some industrial sectors
- Man, there is evidence that the rate of business failures is inversely proportional to the level of education, age and previous experience of the owner-manager
- Type the company, there is a bit of a failure in franchising
- The location, the failure rate is somewhat lower in rural areas

**Theoretical framework:** In the Agency theory, there are two parties in an entity. The two parties are the principle and agent. Principle is the financier who controlled entity, principle delegate authority to the agent, the management, to manage the capital held to improve the welfare of the principle. Storey in Dylan also stated that the factors that affect the bankruptcy of one of them is the size of the company. Companies that have a larger size tend to avoid bankruptcy. The size of the company can be seen from the total assets. This is in line with the definition of financial distress that by Kahya and Theodissiu (1999) that one of the characteristics of companies experiencing financial difficulties is a decrease in total assets or in other words, a decrease in the size of the company Fig. 1. Based on the framework that has been stated above, the hypothesis proposed in this study are:

- $H_1$ : the firm size effect on financial distress

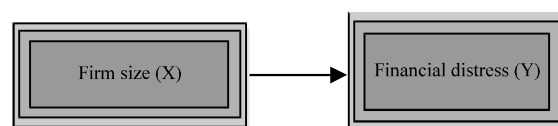


Fig. 1: Theoretical framework

## **MATERIALS AND METHODS**

The method used by the writer is descriptive method. Descriptive method is a method in researching the status, groups of people, an object, a set of conditions a system of thought or a class of events in the present. The purpose of descriptive research is to create a description, picture or painting in a systematic, factual and accurate information on the facts, properties and relationships between phenomena investigated (Sugiyono, 2013). In addition, this study is verification. By Sugiyono (2003) verification is research evidence to test hypothesis through descriptive research results with a statistical calculation in order to get results that show proof of the hypothesis is rejected or accepted. The type of data in this research is secondary data. The data used in this study of the financial statements of agricultural companies listed on the Indonesia Stock Exchange in the period 2012-2014, published through pages [www.idx.co.id](http://www.idx.co.id) and Indonesia Capital Market Directory. Another data source that references the author of some books, journals, news articles and some earlier research. The population used in this research are agricultural companies listed in Indonesia Stock Exchange. This study using multiple regression analysis (multiple regression analysis) to test whether the profitability, liquidity and firm size as independent variables have an effect on the dependent variable is financial distress.

## **RESULTS AND DISCUSSION**

Company size on agricultural companies listed on the Indonesian Stock Exchange (BEI) the highest average of 14.955 there in 2014 while the average was lowest for the year 2012 in the amount of 14.771. If you look at the chart the development of company size on agricultural companies listed on the Indonesian Stock Exchange (BEI) in the period 2012-2014 has a trendline that is likely to increase. The company with the size of the largest companies in the year 2012 to 2014 was Salim Ivomas Pratama, Tbk with consecutive values 17.095, 17.150 and 17.249. As for companies with lows company size in 2012 was Earth Teknokultura Unggul Tbk with a value of 11.2597. For the years 2013 and 2014, the company with the lowest enterprise size is Wahana Pronatural, Tbk with a value of 11.649 and 11.599. Financial distress in the agricultural company listed on the Indonesia Stock Exchange (IDX) on average there is a high of 4.489 in 2012 while the average was lowest for the year 2014 is equal to 3.788. If you look at the chart the development of financial distress in the agricultural companies listed on the Indonesian Stock Exchange (BEI) in the period from

2012-2014 had a downward trend. Companies with the highest value of financial distress in the year 2012-2014 was Inti Agri Resources Tbk with consecutive values 17.206, 18.983 and 22.062. While companies with the value of financial distress in 2012 and 2014 the lowest was Centarl Proteina prima, Tbk with consecutive values -8.255, -5.259 and -6.386. The significance level ( $\alpha$ ) of 5%,  $dk = (n-k-1) 54-3-1 = 50$  with testing two parties in order to obtain t-table is 2.009. The size of the company (X) does not significantly influence financial distress (Y) because the value of t-test (-1.088) are located in the reception area  $H_0$ , in other words  $H_a$  is rejected, meaning that there is no significant influence between firm size and the value of financial distress.

Results showed that the size of the company but did not significantly affect the company's financial distress. No significant question is the assertion that these results do not apply to the population, that means that conclusion only applies to the sample in the study is not to generalize to the population (Sugiyono, 2013). This is consistent with the results of research Khaira (2014) in Analysis of effect of capital structure, company size and cost performance against agency company. When viewed from the trend of the average size of the company in the period 2012-2014 showed an ascending trend. It is inversely proportional to the value of financial distress in the period 2012-2014 decline.

The size of the company is a picture of the size of a company that can be seen from the total assets, turnover or number of employees of a company on the theory, White *et al.* (2003) in Candrawati (2008) suggested that large companies more easily obtain additional funding required from parties external because investors typically will invest in large companies. However, it is important to consider whether the assets have been used effectively to improve the financial condition of the company. This led to the company's size is not a factor that significantly affect the value of financial distress companies.

## **CONCLUSION**

Based on the analysis results that have been presented above, the researchers conclude as follows: firm size has an influence but not significant to financial distress.

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## REFERENCES

- Almilia, L.S. and Meliza, 2003. [Financial ratio analysis to predict financial distress condition of the company manufacturing listed in the securities exchange Jakarta (In Indonesian)]. *J. Account. Auditing Indonesia*, 7: 183-210.
- Altman, E.I., 1968. Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *J. Finance*, 23: 589-609.
- Altman, E.I., 1983. *Corporate Financial Distress: A Complete Guide to Predicting, Avoiding and Dealing with Bankruptcy*. 1st Edn., John Wiley and Sons, New York, USA. is BN-13: 978-0471087076, Pages: 368.
- Altman, E.I., 1995. Corporate credit scoring models: Approaches and standards for successful implementation. *J. Commercial Bank Lending*, 77: 10-22.
- Beaver, W.H., 1966. Financial ratios as predictors of failure. *J. Account. Res.*, 4: 71-111.
- Brigham, E.F. and P.R. Daves, 2003. *Intermediate Financial Management*. 8th Edn., Thomson Corporation, Stamford, Connecticut, USA.,.
- Brigham, E.G. and L.C. Gapenski, 1996. *Financial Management: Theory and Practice*. 8th Edn., Dryden Press, Oak Brook, Illinois, USA. isBN:9780030187087, Pages: 526.
- Candrawati, A., 2008. Analysis of factors influencing the success of turnaround in businesses experiencing financial distress. Master Thesis, Diponegoro University, Semarang, Indonesia.
- Damodaran, 1977. *Corporate Finance: Theory and Practice*. John Wiley & Sons, Hoboken, New Jersey, USA.,.
- Iramani, R., 2008. Model companies go public in Indonesia (studies in manufacturing sector). *J. Manage. Appl.*, 6: 183-194.
- Kahya, E. and P. Theodossiou, 1999. Predicting corporate financial distress: A time-series CUSUM methodology. *Rev. Quant. Finance Account.*, 13: 323-345.
- Khaira, A.F., 2014. [Influence analysis of capital structure, company size and agency cost on company performance (In Indonesian)]. *J. Account. Finance*, 13: 37-46.
- Platt, H.D. and M.B. Platt, 2002. Predicting corporate financial distress: Reflections on choice-based sample bias. *J. Econ. Finance*, 26: 184-199.
- Sugiyono, 2003. [Statistics for Research]. Alfabeta. CV, Bandung, Indonesia, (In Indonesian).
- Sugiyono, 2013. *Statistics for Research*. Alfabeta, Bandung, Indonesia.,.
- Tanti, 2010. *Impact of Global Financial Crisis on the Economy*. Bogor Agricultural University, Bogor, Indonesia.,.
- White, G.I., A.C. Sondhi and D. Fried, 2003. *The Analysis and Use of Financial Statements*. John Wiley & Sons, Hoboken, New Jersey, USA. isBN:9780471375944, Pages: 767.
- Yuniarti, 2012. [The effect of financial ratio on financial distress predictions company basic and chemical industry listed in Indonesia stock exchange (In Indonesian)]. *J. Econ. Manage.*, 6: 161-166.