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Do distressed firms manage earnings?

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Abstract

Purpose: This research aims to test and analyze whether the central role of SOE compare with the phenomenon of financial distress will result in dysfunctional behavior. This motivates researchers to investigate SOE financial performance and behavior. Thus, this study aims to prove that the influence of financial distress on SOE and POE behavior is different.

Design/methodology/approach: The researcher employs a quantitative approach to test the hypotheses. The data collected using documentation of financial data of 55 SOE and 135 POE listed in Indonesia Stock Exchange year 2014-2018. Distress status determines using Altman Z-score and earnings management measured using the Modified Jones Model. This study examines two groups of samples originating to test hypotheses using two independent sample t-tests.

Findings: The research results succeeded in proving that SOE and POE react to a distressing condition in different ways. While SOE responds in the increasing pattern, means income maximization, the POE were in the opposite direction.

Research limitations/implications: Scoring bankrupt prediction use only one equation, that is Altman Z-score, thus there are bias potential due to "no one-size-fits-all" view point.

Practical implications: This result suggests that the government and other shareholders should be careful in making decisions concerning distressed SOE.

Originality/value: Most earnings study was conducted in good financial performance in order to get a general conclusion. Since other scholars focus on how SOE performance in a "normal" situation, this research tries to investigate their behavior in the "abnormal situation.

Keywords: Distressed-SOE, distressed-POE, financial behavior, earnings management, Altman Z-Score.

Introduction

Many studies on Indonesian State-Owned Enterprise (SOE) performance showed that they did not outperform (Soejono & Heriyanto, 2018; Wicaksono, 2008). SOE performance assessment per sector in Indonesia in 2018, in terms of the Z-score, shows that only 3 out of 11 sectors have a healthy financial condition category. Even 2 of them experienced distress. The five sectors are construction, infrastructure, mining, energy, and consumer goods sectors. In many countries, for example Indonesia, SOE is responsible for earning profit to support the government budget. Many studies in other countries also showed that SOE received huge investments from the government. Nevertheless, they were operated without a clear strategy, which results in inefficiencies even with abundant resources (Jakob, 2017), thus contribute to low even negative growth (Bajo, et al., 2018; Chen & Feng, 2000). SOE is not solely aimed at profits but has multi-tasks such as being a

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government vehicle for realizing social welfare and production efficiency (Bai, et al 2000; Wong, 2004 Sungkar, 2008). The relative inefficiency of SOE is also due to the focus on the goals of politicians and bureaucrats. They are often more concerned with labor and trade union issues (Shleifer et al., 1996). A politician who focuses on employment will carry the mission in the form of corporate goals that emphasize the level of employment that may conflict with the principles of efficiency and profit maximization. The description above shows that SOE differ from Private-Owned Enterprise (POE) for some characteristics. In addition, many scholars also agree on some differences, such as corporate governance policy, government intervention, financial management, financial performance, and business strategy. From a motivation standpoint, reward and punishment systems are more pronounced at POE than SOE because excellent performance does not receive incentives. In contrast, poor performance does not punish through expropriation or bankruptcy (Mohan, 2001).

Research on earnings has been started since Ball and Brown research in 1968 until recent. The long story of earnings information and decision-making show that quality of earnings plays an important role (Dang, et al., 2020). Most earnings research was conducted in good financial performance in order to get a general conclusion. Since other scholars focus on how SOE performance in a "normal" situation, this research tries to investigate their behavior in the "abnormal situation." Thus, motivates researchers to see whether SOE in a distressed condition will manage earnings as POE.

Literature Review

Agency and Signaling Theory

Research on corporate objectives, mainly profits, has been extensively investigated using agency theory. Agency theory states that managers' opportunist attitudes encourage them to fulfill the desires of their primary stakeholders. According to signaling theory, management can provide both positive and negative signals. For the bad news, the company may choose to release it at the weekend, usually Friday after the closing to trading (Patell & Wolfson, 1982). There are two reasons why management give bad news to the market (Skinner, 1994). Firstly, by showing the company's actual condition, the company will be considered to still have integrity or shortly reputational costs. Secondly, by qualitatively disclosing the bad news with a reasonable explanation, the management gives a signal that they may overcome problems but already plan to fix it. Therefore, information users will not sue them to the court. The market appreciates it by holding back the decline in the company's stock price (Lo, 2012). Good news is shared by management because it hopes the market will respond positively so that its stock price will increase (Rosner, 2003). Earnings information has been shown to have information content for investors (Rayburn, 1986). Management uses earnings to convey company performance information and prospects in the future (Finger, 1994). The importance of earnings information for investors encourages management to behave opportunistically, to determine the amount of profit following the wishes of investors for the achievement of management expectations (Sulistyanto, 2014).

Jensen & Meckling (1976) suggested that agency interactions occur among principals who hire other individuals, namely agents, to perform some services when making decisions on these agents. Agency problems exist due to asymmetric information. As internal parties, managers consider having better information than investors who are external parties of the company. Managers can explore profits by organizing information to investors. According to Pangeran & Salanaung (2016), asymmetric information can provide managers with opportunistic behavior regarding company profits that are detrimental to owners. Managers are motivated to take these actions for personal gain without the consent of the owner.

Given the control advantages, managers can present the company's earnings in a manner that is most suitable for the company or themselves by using accounting methods as they wish (Ghazali, 2015). Management always tries to deliver good news by presenting hopes in the form of profits, including when the company is in a state of distress. They cover up their poor performance by carrying out earnings management. According to the National Association of Certified Fraud

Examiners, earnings management is taken intentionally to prepare financial statements to mislead stakeholders. The accrual policy permits the company to record transactions not based on expenditure and cash receipts (Permatasari, 2005), voluntary accounting changes, and the application of mandatory accounting policies (Ayres, 1986), causing managers to take earnings management actions.

Scott (1997) classified earnings management patterns into a) income maximization, b) income minimization, c) income smoothing, and d) taking a bath. Income maximation detected when the sign is positive and minimization in the opposite direction. Income smoothing is recognized when the average of income is flat, while taking bath occur in a situation where loss incurred before finally jump into the very high income. In detecting earnings management, researchers may use such a model from several models; The DeAngelo Model, The Healy Model, The Jones Model, The Modified Jones Model, The Industrial Models, Total Accruals (Kustinah, 2011). Dechow, et al. (1995) and Sulistyanto (2014) stated that the Jones Modification Model is the most powerful in detecting earnings management actions than others. Thus, this model become very popular among scholars in Indonesia also (i.e. Nugroho, 2009 and Setiawan, 2018).

The research of Hope, et al. (2013) explained that public companies have lower accrual quality. Zhuang (2017) conducted a research in China and found that SOE tends to have lower earnings quality than POE earnings quality. This finding confirms that state ownership motivates SOE to manipulate accounting. However, POE and SOE reactions can be different in response to the conditions of distress. Pang (2017) stated that the impact of SOE and POE when experiencing default, shows the results that SOE and POE have different reactions when responding or experiencing default.

Refer to the above situation; the agency theory may work in POE but does not work in SOE because managers do not have an incentive to use its discretion. Besides, the assumption that SOE has a control mission causes the government not to hesitate to conduct bail-outs. Thus, it was hypothesized:

H1: Distressed SOE manage earnings in positive direction, while distressed POE manage earnings in negative direction.

Methods

This research is a quantitative approach using secondary data in the form of financial statements from the Indonesia Stock Exchange (IDX) website. The population of this research were SOE and POE registered in the Indonesia Stock Exchange from 2014-2018. The sample selection criteria are as follows:

1. SOE and POE, which publish financial statements in the research period of 2014-2018.
2. POE is in the same sub-sector with SOE.
3. SOE and POE have the Altman Z-score calculation in the distressed zone and a grey area category (prone conditions) from 2014-2018.

Financial distress for manufacturing companies is calculated using the Altman formula as follows:

$Z = 0.717X_1 + 0.847X_2 + 3.107X_3 + 0.420X_4 + 0.998X_5$

Financial distress for non-manufacturing companies is calculated using the modified Altman formula as follows:

$Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$

Whereas:

Z' = Bankruptcy index
X1 = working capital/total asset
X2 = returned earnings/total asset
X3= EBIT/total asset
X4 = Book Value of Equity/Book value of debt.
X5 = sales/total asset

The following table is a company sample:

Table 1. Research Sample

	SOE	POE
Samples meet the criteria	55 companies	135 companies
Eliminated due to data outlier	2 companies	67 companies
final result	53 companies	68 companies

Research Variables

Earnings management

Earnings management in this research was proxied by Discretionary Accruals using the Modified Jones model. The following are the Modified Jones Model stages:

1. Total Accrual (TAit) = Nit – CFOit
2. Calculate the estimated total accruals with the regression equation Ordinary Least Square: TAit /Ait -1 = β1 (1/Ait-1) + β2 {ΔREVt/Ait-1} + β3 (PPEt/Ait 1) + e
3. Calculate Non-discretionary accrual (NDA) NDAit = β1 (1/Ait-1) + β2 {(ΔREVt - ΔRECt)/Ait -1)} + β3 (PPEt/Ait -1)
4. Calculate Discretionary Accrual: DAit = TAit/Ait – 1 - NDAit

Whereas:
TAit : total accruals
NI : net income
CFOit : cash flow operation company i in year t
Ait-1 : Total asset company i in end of year t
ΔREVt : change in revenue company i in year t
ΔRECt : change in receivables company i in year t
PPEt : fixed assets company i in year t
NDAt : Nondiscretionary accrual company i in year t
DAt : Discretionary accruals company i in year t
e : error

This research examined two groups of samples originating from different populations and tested hypotheses using t-tests.

Result

Descriptive statistics

Here are the descriptive statistics of two samples.

Table 2. Descriptive Statistics of SOE

	Z_SCORE	**DA**
Mean	0.969358	0.245070
Median	1.350000	0.313205
Maximum	2.930000	1.089343
Minimum	-3.564000	-0.849336
Std. Dev.	1.266115	0.411235
Skewness	-1.246712	-0.850636
Kurtosis	4.709205	3.710579
Jarque-Bera	20.18095	7.506667
Probability	0.076041	0.053439
Sum	51.37600	12.98873
Sum Sq. Dev.	83.35843	8.793922
Observations	**53**	**53**

Source: Secondary data processed, 2021

Discretionary accruals got the lowest value of -0.849 and the highest value of 1.089 while the average of all sample companies got 0.245. This means that in average, SOE companies conducted earnings management with an increasing pattern and standard deviation of 0.411.

Financial distress had a minimum value of -3.56 and a maximum value of 2.93 with an average of 0.969 indicating that the average SOE company experienced financial distress of 0.969 with a standard deviation of 1.266.

Table 3. Descriptive Statistics POE

	Z_SCORE	DA
Mean	0.034658	-0.042471
Median	0.346000	-0.022405
Maximum	2.713000	0.259758
Minimum	-4.085000	-0.378514
Std. Dev.	1.324014	0.137869
Skewness	-0.877537	-0.235298
Kurtosis	3.826927	3.014338
Jarque-Bera	11.91963	0.701945
Probability	0.052580	0.704003
Sum	2.634000	-3.227789
Sum Sq. Dev.	131.4760	1.425583
Observations	**68**	**68**

Source: Secondary data processed, 2021

Discretionary accruals got the lowest value of -0,378 and the highest value of 0.259, while the average of all sample companies got the value of -0.042. This means that in average, POE companies conducted earnings management with a decreasing pattern and standard deviation of 0.137.

Financial distress had a minimum value of -4.085 and a maximum value of 2.713 with an average of 0.034, indicating that the average POE company experienced financial distress of 0.034 with the standard deviation of 1.324

The following is the test results:

Table 4. T-test: Unassumed Two-Sample Equal Variances

		t	df	Sig two-tailed
Earning Management	Unassumed Equal variances	4.902	60.215	.000

Based on the statistical output in table 4, the significance (2-tailed) was 0,000 <0.05. This output indicated that there were differences in earnings management by SOEs and POEs; it can be concluded that H1 was accepted.

The Difference Between Earnings Management of SOE and POE When Having Financial Distress

From the results of tests conducted, there were differences in the pattern of earnings management by SOEs and POEs when experiencing financial distress. Based on the mean of SOE that experienced distress, it was found that the SOE distress level was higher than POE. This becomes reasonable because, in many cases, SOE are created to overcome market failure issues (Putniņs, 2015) instead of to capture good prospect or opportunity. This may cause the SOE to operate in somewhat inefficient as well as not profitable. The crucial role of SOE as government as well as politicians' symbol may bias the performance.

Due to economic nationalism (Wicaksono, 2008), Government subsidies to SOE are often given after there are signs of distress to prevent conditions from worsening. The results of studies in several countries show that government subsidies are often unable to improve SOE performance; thus, it adds the company age, yet none improved. Kempe, (2010), Zhuan, (2017)

and Givoly, et al. (2010) also stated that strict supervision from the government puts SOE companies under high pressure to present business activities and financial results following the government's wishes. Thus, distressed SOEs must be positively imaged to maintain the government's image.

Unlike the POE, which must rely on real performance to avoid distress, SOE plausibly received different government treatment that hinders them from head-to-head competition (Siswanto & Hutajulu, 2019). This motivated SOE to manage their earnings in a positive direction as other countries did, such as in China. According to Capalbo, et al., (2018), at least there are eleven issues relate to the existence of a positive correlation between SOE and Earnings Management. Four of them are strictly related to Indonesian cases, namely (1) low governance and audit quality associated with an increase in managerial autonomy, (2) longer accountability chain (3) different and often contrasting interests in the ownership, and (4) predominantly political issue.

SOE earnings management patterns were also different from POE. They tended to make an upward pattern to give good news to the capital market to have a positive effect to avoid negative public accusations. Conversely, POE that experienced distress has a lower mean than SOEs, which tended to do earnings management with a decreasing pattern. The aim was to deliver bad signal to outsiders that the company was in a trouble condition. They did that to avoid the more severe consequences if their earnings management efforts were detected by the public, causing higher demands. The company hoped that delivering bad news can give a more positive image because it is considered good faith. This research gave similar results to Pang (2017) which stated that SOE and POE have different reactions when responding to defaults.

Theoretical and Managerial Implication

This research found that:

1) In line with the agency and signaling theory, both SOE and POE, managed their earnings to respond to the default.
2) While SOE responded in the increasing pattern, means income maximization, the POE was in the opposite direction.

Finding in this research emphasize the notion that SOE and POE were two different business entities. They behave differently to respond to the threat of bankruptcy. Investors should consider other financial information to accompany company earnings disclosure, such as performance trends during a particular year. The government should take careful investigation before bail-out decision to make sure that the SOE will truly recover after bailed-out. Never rely on earnings disclosure solely if not the bail-out will not succeed. This finding strengthens research on SOE financial performance that pursues group interest, such as government and politicians.

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