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Fraud Diamond and Management Fraudulent Act Analysis: Evidence from Indonesia

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Abstract:

This study examines the effect of pressure, opportunity, rationalization, and capability to management fraudulent act of the listed firms. The firms which listed on Indonesian Stock Exchange (IDX) from 2008-2016 are classified as fraudulent and non-fraudulent firm. The fraudulent firms are selected from the listed firms which have been suspended due to fraudulent act or law violation. The study use purposive sampling, as a result, 58 samples which consist of 29 fraudulent firms, and 29 non-fraudulent firms used as samples. The results show that management fraudulent act of the listed firms only affected by pressure and opportunity. Rationalization is not affecting management fraudulent act, because different social process make different justification regarding to fraudulent act. Capability is not affecting management fraudulent act, because CEO power cannot be forced against the social norm which is accepted with the society. This study also shows that fraudulent firms which have founder on board of commissioner and director do not have different characteristic regarding pressure, opportunity, and capability.

Keywords: Pressure, opportunity, rationalization, capability, management fraudulent act of the listed firms, fraud diamond, Indonesian stock exchange

1. Introduction

Negative effect of the corporate scandal back in the 2000 took the attention of the world, and forced the governments to take action accordingly. Indonesian government just like the other governments has applied the good corporate governance (GCG) to prevent corporate scandal happen in Indonesia. One of the GCG objectives is to prevent fraudulent act of the listed firms (KNKG, 2006). However in Indonesian Stock Exchange (IDX), the firms that has been suspended due to fraudulent act or breaking the regulations rose 100% in 2009 to 2013 (BEI, 2015).

According to DiNapoli (2002), violation of the regulations can be considered as red flags of fraudulent act. Kamarudin et al. (2012) considered financial reporting delays as fraudulent act of the firm. The fact is, IDX has encouraged the listed firms to practice GCG, the suspended firms' percentage rose. This phenomenon leaves question that need an answer, what are the factors that caused the management fraudulent act in Indonesia? Explanation of the phenomenon could prevent corporate scandal and mitigate the fraudulent act (Magnalelli, 2011).

In order to answer the question, this study tries to confirm the fraud diamond theory using proxies from previous studies. This study also tries to generalize if the proxies from previous research do not have different result regarding the proxy's effect to fraudulent act in Indonesia. Research regarding to fraudulent act and GCG is common in one tier board structured country, hence, to confirm or generalize research results from the one tier board structured country to two tier board structured country (Indonesia) is necessary (Jaswadi, 2013).

We collected 58 firms as sample which consisted of 29 fraudulent firms which convicted to commit fraudulent act or breaking the regulation by IDX, and 29 control firms which not committed any fraudulent act or breaking the regulation from 2008 until 2016. We tested fraud diamond factors like pressure (financial distress), opportunity (independent board of commissioner), rationalization (founder on board), and capability (power) to fraudulent act of Indonesian listed firms using logistic regression. In addition, this study tries to find out if the fraudulent firms which have a founder on the board of commissioner have different characteristics regarding pressure, opportunity, and capability with the fraudulent firms which have a founder on the board of director.

2. Literature Review and Hypotheses

2.1. Financial Distress as the Pressure's Proxy

The first driver of fraudulent act is pressure, and basically it is come from the will to fulfill the daily fundamental need, such as food, house, and money (Albrecht et al., 2013). Such pressure will drive people's behavior to fulfill those needs. In common case, pressure comes from desire of having a luxurious lifestyle, and sustaining a prestige reputation or social status (Cendrowski et al., 2006) Fraudulent act in term of financial reporting has a thing in common. Investor or shareholder gained information regarding the firm's performance from the financial report, and the market will react in accordance with firm's performance. Bad performance will drive the shares price down because the investor or shareholder sell the firm's shares and that is a bad news for the firms. This phenomenon will give a pressure to the firm's management to prevent shares price falling at all cost, including fraudulent act (Albrecht et al., 2013).

2.2. Independent Board of Commissioner as the Opportunity's Proxy

Fraudsters need a realistic perception of opportunity to commit the fraudulent act, and can be prevented with GCG (Albrecht et al., 2013). GCG act required at least 33% independent member in the firm's board of commissioner structure. Hence, board commissioner's functions become more effective due the lack of relationship between the commissioner and the management.

Beasley (1996) found that the firms which committed fraudulent act have a fewer independent member in board of commissioner than the non-fraudulent firms and also have a larger audit committee proportion than the non-fraudulent firm. However, audit committee member is selected by board of commissioners. This implies that the fraudulent firm with the smaller independent member in the board commissioner can override audit committee's function. Hence, independent commissioner is the primary factor of the fraudulent act prevention (Beasley, 1996).

2.3. Founder on Board as the Rationalization's Proxy

Peoples in general are honest and reluctant to act unethical, thus fraudulent act will create dissonance in their mind. This dissonance has to be cleared by having a justification like "this is the only option", "this is only temporary"; "everybody do the same" (Albrecht et al., 2013). Once they have their justification, no dissonance will be created.

Satyam case shows how founder justify their fraudulent act. The founder basically builds the firm from the start, and by that, social process and connection with the firm are created. This connection is enough to make a justification, even to justify fraudulent act for the firm's sake and reputation (Bhasin, 2013).

2.4. CEO Structural Powers or CEO Duality as Capability's Proxy

Committee of sponsoring organizations of the tread way commission (COSO) also found that 89% fraudulent case involved CEO (Crowe, 2011). CEO is one form of powers or position, and such power gives them a right to push other people to do what they want. However, when the position of CEO and board chairman is owned by one people, then, the structural power will increase. This will enable the CEO to overrides the internal control mechanisms, hence fraudulent act is increasing (Khana et al., 2013).

2.5. Research Hypotheses

Considering the previous literatures, we expected that pressure will affect the firm's management fraudulent act positively (H1), opportunity will affect the firm's management fraudulent act negatively (H2), rationalization will affect the firm's management fraudulent act positively (H3) and capability will affect the firm's management fraudulent act positively (H4).

3. Research Method and Data

3.1. Sample

For the period of 2008-2016, we took 70 fraudulent firms as sample. A fraudulent firm will be excluded if the required data is unavailable (annual report and financial report), this leaves 27 fraudulent firm excluded and 43 fraudulent firms remained as samples. We also pair the fraudulent firms with non-fraudulent firms which have similar size (total assets) and industry as the control firms, and we identified the non-fraudulent firm as a firm which have not suspended by IDX due to committing fraudulent act or breaking regulation (Beasley, 1996). However, fraudulent firm will be excluded if control firm cannot be found, this leaves 29 fraudulent firms and 29 matched non-fraudulent firms as the final sample.

3.2. Models and Variables Measurement

Logistic regression is used to analyze the effect between fraud diamond factors (pressure, opportunity, rationalization and capability) to management fraudulent act (MFA). The model is written as follow:

MFA = $\beta 0 + \beta 1$ Pressure + $\beta 2$ Opportunity + $\beta 3$ Rationalization + $\beta 4$ Capability + ϵ(1)

Management fraudulent act is the dependent variable and measured by categorizing fraudulent firm with value of 1, and non-fraudulent firm with value of 0 (Beasley, 1996, Hasnan et al., 2014). The fraudulent firms are selected from the firms which convicted to commit fraudulent act or breaking the regulation by IDX. Non-fraudulent firms are selected from the firms which not committed any fraudulent act or breaking the regulation.

3.3. Pressure (Financial Distress)

Fraudulent act can be happen due to economic factor like financial distress. This study uses Altman Z-score to check the firm's financial condition. Pressure is measured by categorizing the firms which have financial distress condition with the value of (1), and the firms which do not have financial distress condition with the value of (0) (Hasnan et al., 2014).

3.4. Opportunity (Independent Board of Commissioner)

The independent characteristic of board commissioner can mitigate the collusion between the board of commissioner and firm's management (Albrecht *et al.*, 2013). This will decreases the perception of opportunity in the process of fraudulent act. Opportunity is measured by the total of the independent member in board of commissioner (Rahmayanti and Irianto, 2010).

3.5. Rationalization (Founder on Board)

Rationalization is required in the process of fraudulent act. Such rationalization can be acquired from social process of the perpetrator, such as founders bond with the firm which they build.Rationalization is measured by the founder percentage on the firm's board (Hasnan et al., 2014). The board can be board of commissioner, or board of director.

3.6. Capability (CEO Powers or CEO Duality)

CEO position is considered as a high position in organization hierarchy, thus reflect a high structural power. The structural power will get higher if the CEO is also holding the chairman position. Capability is measured by categorizing the firm which CEO is holding chairman position in board commissioner or director with value of (1), and the firm which CEO is not holding chairman position in board commissioner or director with value of (0) (Finkelstein, 1992).

4. Empirical Results and Discussion

4.1. Descriptive Statistics

Table 1 shows the results of fraud diamond factor characteristics in fraudulent and non-fraudulent firms. The result for pressure shows that non-fraudulent firms have fewer firms which have financial distresses condition than fraudulent firms. The result for opportunity shows that non-fraudulent firms have more independent members in board commissioner than fraudulent firm. The results also show that there are fraudulent firms which have zero independent board commissioners. This implies that there are some fraudulent firms which ignore the IDX regulation related with GCG act. Regarding rationalization and capability, the results show that non-fraudulent firms have slightly fewer founders on the board and CEO powers. However, the differences between the mean of the fraudulent and non-fraudulent firms is relatively small. This implies that fraudulent and non-fraudulent firms almost have same characteristics related to those two last variables.

		Fraudulent Firms (n=29)	Non-Fraudulent Firms (n=29)
Pressure	Minimum	0	0
	Maximum	1	1
	Mean	0.69	0.13
Opportunity	Minimum	0	1
	Maximum	4	4
	Mean	1.55	1.93
Rationalization	Minimum	0	0
	Maximum	1	0.75
	Mean	0.31	0.23
Capability	Minimum	0	0
	Maximum	1	1
	Mean	0.31	0.28

Table 1: Descriptive Statistic

4.2. Multicollinearity and Hosmer-Lemeshow Test

Logistic regression requires a low correlation in each variable that are used in the model. Rule of thumb for the correlation value should not more than 0.9 (Sarwono, 2016:161). Multicollinearity test in table 2 shows that there is no high correlation value for each variable, thus it passed the multicollinearity test.

Hosmer-lemeshow test purposes to confirm if the model is qualified to use in the next analysis. Rule of thumb for the hosmer-lemeshow test is the probability value should be higher than 5% (Sarwono, 2016:219). Hosmer-Lemeshowtestin table 2 shows that the probability value is 0.92, which is higher than 5%. This means that the model is qualified for the analysis.

	Pressure	Opportunity	Rationalization	Capability
Pressure	1	0.15	0.06	0.33
Opportunity	0.14	1	0.01	0.05
Rationalization	0.06	0.01	1	0.11
Capability	0.33	0.51	0.11	1
	Prob. Chi-Square			
Probability Value	0.92			

Table 2: Multicollinearity test and Hosmer-Lemeshow test

4.3. Hypotheses Test

We predict that all of the variables affect the management fraudulent act positively, except opportunity affects the management fraudulent acts negatively. Table 3 shows that pressure positively affects the management fraudulent act and opportunity negatively affect the management fraudulent act. This can be seen from the probability value for both pressure and opportunity which are 0.00 and 0.02 respectively. The value of the coefficient for pressure and opportunity are 3.45 and -1.13 respectively. These findings support our hypothesis 1 and hypothesis 2.

However, our hypothesis 3 and 4 are not supported. Probability value for rationalization and capability are 0.18 and 0.24, which are higher than 5%. This is not surprising since the characteristic of both variables for fraud and non-fraudulent firms are almost similar. Mcfadden-r-squared value is 0.38, this means that the model predicts the management fraudulent act at 38%, and the other 62% is predicted by the other variables which not included from the model.

	Coefficient	Probability
Constanta	-0.22	0.78
Pressure	3.45	0.00*
Opportunity	-1.13	0.02*
Rationalization	1.83	0.18
Capability	0.86	0.24
McFadden-Rsq	0.38	

Table 3: Hypotheses Test (* Significant at 5%)

In addition, this study tries to find out that if fraudulent firms with founder on board of directors and commissioner have different characteristics regarding pressure, opportunity and capability. This study also tries to re-run the regression model with different rationalization's proxy. The new rationalization's proxy is measured with categorizing the firms which do not have any founder on board with value of (0), the firms which have founder on board of director with value of (2).

Table 4 shows the re-run of the regression model. As the result, the new rationalization's proxy significantly affects the management fraudulent act, with 5% probability value. This result is consistent with Hasnan et al. (2014) argument to not using ratio when measuring the proxy of rationalization or founder on board.

	Coefficient	Probability
Constanta	-0.51	0.54
Pressure	3.47	0.00*
Opportunity	-1.23	0.02*
Rationalization	1.11	0.05*
Capability	0.96	0.21
McFadden-Rsq	0.41	

Table 4: Additional test (* Significant at 5%)

Table 5 shows Mann-Whitney and Kolmogorov Smirnov test result. This test purposes is to find if the fraudulent firms which have founder on board of directors and commissioner have different characteristics in term of pressure, opportunity and capability. In this analysis, we use the fraudulent firms which have a founder on board, and excluded the fraudulent firms which have zero founder on board. The final sample consists of 14 fraudulent firms which have a founder on the board director, and 8 fraudulent firms which have a founder on the board of commissioner and director have the same characteristic. This implies that founder presences either on the board director or commissioner may poses a risk to a fraudulent act.

	Mann-Whitney	Kolmogorov-Smirnov
	<i>p</i> -value	p-value
Pressure	0.08	0.80
Opportunity	0.76	0.99
Capability	0.94	1.00

Table 5: Mann-Whitney and Kolmogorov Smirnov Test

4.4. Discussion

Based on hypotheses test, financial distress will increase the occurrence of management fraudulent act. This finding is supported by Hasnan et al. (2014) findings. This implies that financial distress represent a bad performances of the firms which will be negatively responded by the market, this will bring down the firm's share prices. Firm's management will anticipate share prices dropped by window dressing the real firm's performances (Hasnan et al., 2014).

This study shows that independent board commissioner will mitigate management fraudulent act. This finding is consistent with Beasley (1996). Opportunity from fraud diamond theory explained a phenomenon that a weak and monitoring and internal control leaves an opportunity for the fraudster to do fraudulent act (Wolfe and Hermanson, 2004), thus more independent board commissioner will mitigate the opportunity for fraudulent act.

Based on hypotheses test, the last two hypotheses are not supported. Founder on board as the rationalization's proxy is not affecting the management fraudulent act. This finding is consistent with Matoussi and Garbhy (2011). Yeh (2005) argued that founder as the largest shareholders have more incentive to obey the regulation as they run their firm. This implies that founder have no justification to do fraudulent act, as the fraudulent act can destroy the firm in term of reputation and share prices

The last, CEO power as capability's proxy is not affecting the management fraudulent act. This finding is consistent with Beasley (1996), Matoussi and Garbhy (2011) and Khana et al. (2013). Khana et al. (2013) argued that CEO power can only force their will to other few people, but not to social norm which is accepted by society in general. Thus, forcing other to act against the social norms (fraudulent act) will not be accepted and rejected with the society.

5. Conclusion and Further Research

This study confirms and identifies fraud diamond factors that affect the management fraudulent act in IDX. It enriches the accounting literature on fraudulent act in two tier board structured country. As the results, firm which have financial distress condition is more likely to commit fraudulent act; more independent board commissioner will mitigate fraudulent act. Contrary, based on hypotheses test, founder on board is not a factor that led to fraudulent act. Yeh (2005) argument is the opposite of the Satyam's founder argument (Bhasin, 2013), this lead to a concept of different people given the same situation will act differently, this caused by different people have a different process of socialization, and hence different people have a different justification. CEO power also can only force their will to few people, but not to social norm which is accepted by society.

Data which provided in IDX is only 9 years period, hence the sample we acquired is relatively smaller than the previous research, thus limit the study. We encourage the next researcher to expand the data for more robust test. We suggest to uses the proxy for rationalization and capability that can represent the characteristic and behavior of the founder and CEO. We also suggest the IDX to take action for the firms which have zero independent board commissioner.

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