

Fraud Diamond: An Assessment Of Its Elements On Fraudulent Financial Reporting Of Companies Listed On The Indonesia Stock Exchange

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(Received: 12 January 2022; Revised: 15 February 2022; Published: 28 March 2022)

ABSTRACT

The research aimed to analyse the effect of fraud diamond components on the occurrence of fraudulent financial statements. The components of fraud diamond which include financial stability, external pressure, personal financial need, financial target, nature of industry, ineffective monitoring, auditor change, audit opinion and director change were independent variables that were suspected to affect the fraudulent financial statement in the company. Population in this research was all financial statements of food and beverage companies listed on the Indonesia stock exchange which have been audited and published. Samples were financial statements of food and beverage companies period 2012-2016 taken through purposive sampling as many as ten companies. Data analysis techniques used were classical assumption test, hypothesis test (Test R², Test F and Test T) and multiple linear regression analysis test. The results of this research indicated that personal financial need variables measured by the ratio of stock composition owned by the company (OSHIP) affect the occurrence of fraudulent financial statement. While the financial stability, external pressure, financial target, nature of industry, ineffective monitoring, auditor change, audit opinion and director change have no effect on the occurrence of fraudulent financial statement.

Keywords: Fraud Diamond, Financial Stability, External Pressure, Personal Financial Need, Financial Target, Nature of Industry, Ineffective Monitoring, Auditor Change, Audit Opinion, Director Change and Fraudulent Financial Statement

INTRODUCTION

Fraudulent financial reporting is a deliberate attempt by a company to deceive and mislead users of financial statements (Bhasin, 2016; Inayanti & Sukirman, 2016; Yulistiyawati et al., 2019; Zhu & Gao, 2011), especially investors and creditors, by presenting a modification of financial statements. This is a very significant problem because of the impact it has. Therefore, the role of the auditor profession should be more effective so that fraud can be identified as early as possible before it develops into a scandal (Chambers & Odar, 2015; Jeppesen, 2019; Lenz & Sarens, 2012). On the other hand, the auditor cannot guarantee and also is not responsible for detecting all fraud. Instead, the discovery of material misstatement in the financial statements is the primary objective of the audit (SAS 99) (Appel et al., 2020; Haeberlen, 2010; Mittelstadt, 2019).

In general, fraud will always occur if there is no prevention and detection (Cai & Zhu, 2016; Petraşcu & Tieanu, 2014; Wells, 2017). According to Cressey's theory, there are three

conditions that are always present in action fraud namely pressure, opportunity, and rationalization. They are referred to as fraud triangle. Wolfe and Hermanson (2004) states "To improve the prevention and detection of fraud by introducing a fourth element of capability." Wolfe and Hermanson believe that "many frauds would not have had the right person with the capability of implementing the details of the fraud." Thus, the New Fraud Diamond was formed. In this case, one of the ways and perspectives for reviewing and detecting fraud is with the perspective of rectangular fraud (fraud diamond).

The components of this diamond fraud cannot simply be researched and thus require variable proxies (Huber, 2017; Santoso, 2018; Wolfe & Hermanson, 2004). Proxies that can be used for this research include Pressure proxied with financial targets, financial stability, personal financial need, and external pressure; Opportunity proxied with nature of industry and ineffective monitoring; Rationalization proxied with auditor change and audit opinion; and Capability is proxied with director change (Demetriades & Owusu-Agyei, 2021; Manurung & Hadian, 2013; Pamungkas et al., 2018; Sunardi & Amin, 2018).

Research involving fraud diamond has been done, among others by Diany (2014), Pardosi (2015), Prasastie (2015), and Yesiariani (2016). The results of these studies show that there is a relationship between the components of fraud diamond in detecting the fraudulent financial statement. However, these studies tended to test all firms listed on the Stock Exchange. In fact, firms listed in the Stock Exchange are made up of different sectors, so it is necessary to understand each of these sectors as different sets of businesses. This research seeks to overcome this by trying to understand the components of fraud diamond for food and beverage companies listed on the Indonesia Stock Exchange (IDX). It is hoped that this research will be the beginning for subsequent studies that understand and possibly compare the diamond fraud components of each of the different sectors of the company.

METHOD

The population of this study are all financial statements of Food and Beverage Companies listed on the Indonesia Stock Exchange during the period 2012-2016. The sample in this research is taken by purposive sampling method with the following criteria: (a) Food and beverage companies that have gone public and listed in Indonesia Stock Exchange (IDX) during period 2012-2016; (b) The Company publishes annual financial statements in the company website or BEI website during the period 2012-2016 stated in rupiah (Rp); (c) The data relating to the research variables is available completely (overall data is available for publication during the period 2012-2016); (d) Companies that are not delisted from BEI during the period of observation (2012-2016).

The data analysis technique used is multiple linear regression analysis by using the regression equation as follows:

F-

$$\text{Score} = \beta_0 + \beta_1 \text{ACHANGE} + \beta_2 \text{DAR} + \beta_3 \text{OSHIP} + \beta_4 \text{ROA} + \beta_5 \text{INVENTORY} + \beta_6 \text{BDOUT} + \beta_7 \text{AUD CHANGE} + \beta_8 \text{AO} + \beta_9 \text{DCHANGE} + e$$

Which are:

β_0

= Regression coefficient of constants

$\beta_1, 2, 3, 4, 5, 6, 7, 8, 9$

= Regression coefficient of each constant

F-SCORE

= Fraudulent Financial Statement

ACHANGE	= Ratio of total asset change
DAR	= Ratio of total liabilities per total assets
OSHIP	= Ratio of share composition owned by management
ROA	= Return on investment
INVENTORY	= Inventory change rate
BDOU	= Independent board of commissioners ratio
AUDCHANGE	= Change of auditor
AO	= Audit opinion
DCHANGE	= Change of board of directors
e	= Error

a. Hypotheses Test

1) R² Test (Coefficient of Determination)

The strength of the influence of independent variables on the variation of the dependent variable can be known from the value of the determinant coefficient (R²), which differs between zero and one.

Table 1. The result of R² Test (Coefficient of Determination)

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,706 ^a	,499	,386	,37725	,499	4,418	9	40	,000	2,027

a. Predictors: (Constant), DCHANGE, BDOU, ACHANGE, DAR, AO, *INVENTORY*, OSHIP, AUDCHANGE, ROA

b. Dependent Variable: F-SCORE

Based on the regression testing, the value of R² of 0.499 indicates that the independent variables consisting of ACHANGE, DAR, OSHIP, ROA, Inventory, BDOU, AUDCHANGE, AO and DCHANGE are only able to explain the dependent variable that is the risk level of financial report fraud by 49, 9% while the remaining 50.1% is influenced by other factors not included in this regression model.

2) Simultaneous Significant Test (Test Statistic F)

Table 2. Significant Significant Test Results (Test Statistic F)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5,659	9	,629	4,418	,000 ^b

Residual	5,693	40	,142
Total	11,352	49	

a. Dependent Variable: F-SCORE

b. Predictors: (Constant), DCHANGE, BDOUT, ACHANGE, DAR, AO, *INVENTORY*, OSHIP, AUDCHANGE, ROA

In the table above can be seen that the test results f shows the value of F table of 4.418 with significance of 0. The value of significance is smaller than 5% or $0 < 0.05$ it indicates that the independent variable has a positive influence significantly simultaneously to the dependent variable.

3) Individual Parameter Test (Test Statistic t)

Table 3. Individual Parameter Test Results (Test Statistic t)

Model	Coefficients ^a						Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.			
	B	Std. Error	Beta			Tolerance	VIF	
(Constant)	1,434	,296		4,852	,000			
ACHANG E	-,006	,006	-,113	-,964	,341	,908	1,101	
DAR	-,021	,004	-,642	- 5,301	,000	,855	1,169	
OSHIP	,288	,139	,300	2,075	,044	,601	1,663	
ROA	,005	,004	,183	1,215	,231	,553	1,809	
1 <i>INVENTO RY</i>	,000	,001	-,031	-,251	,803	,821	1,218	
BDOUT	-,001	,005	-,034	-,261	,795	,753	1,328	
AUDCHA NGE	-,072	,150	-,064	-,478	,635	,694	1,441	
AO	-,109	,149	-,095	-,729	,470	,744	1,344	
DCHANG E	,071	,128	,072	,553	,583	,732	1,367	

a. Dependent Variable: F-SCORE

The influence of each variable of ACHANGE, DAR, OSHIP, ROA, Inventory, BDOUT, AUDCHANGE, AO and DCHANGE on F-SCORE can be seen from sign direction and

significance. OSHIP, ROA and DCHANGE variables have positive direction, while variable ACHANGE, DAR, Inventory, BDOUT, AUDCHANGE and AO have negative direction. DAR and OSHIP variables significantly affect the F-SCORE because the significant value of DAR is $0.000 < 0.05$ or 5% and OSHIP variable is $0,044 < 0,05$ or 5%. While the variable ACHANGE, ROA, Inventory, BDOUT, AUDCHANGE, AO and DCHANGE have no significant effect on F-SCORE because significant value of each variable $> 0,05$ or 5%.

b. Multiple Linear Regression Analysis Test

The regression equation can be seen from the table of coefficients test results based on the SPSS 21 output on the nine independent variables ie ACHANGE, DAR, OSHIP, ROA, Inventory, BDOUT, AUDCHANGE, AO and DCHANGE against F-SCORE are shown in the following table:

Table 4. Multiple Linear Regression Analysis Test Results

Model	Coefficients ^a						Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.			
	B	Std. Error	Beta			Tolerance	VIF	
(Constant)	1,434	,296		4,852	,000			
ACHANGE	-,006	,006	-,113	-,964	,341	,908	1,101	
DAR	-,021	,004	-,642	-5,301	,000	,855	1,169	
OSHIP	,288	,139	,300	2,075	,044	,601	1,663	
ROA	,005	,004	,183	1,215	,231	,553	1,809	
INVENTORY	,000	,001	-,031	-,251	,803	,821	1,218	
BDOUT	-,001	,005	-,034	-,261	,795	,753	1,328	
AUDCHANGE	-,072	,150	-,064	-,478	,635	,694	1,441	
AO	-,109	,149	-,095	-,729	,470	,744	1,344	
DCHANGE	,071	,128	,072	,553	,583	,732	1,367	

a. Dependent Variable: F-SCORE

Multiple linear regression analysis was used to test the effect of two or more independent variables on one dependent variable. Regression equation can be seen from table of test result of coefficients. In the table, the coefficients read are values in column B, the first line represents the constant (a) and the next line represents the constant of the independent variable. Based on the above table then the regression model used is as follows:

$$F - Score = 1,434 + (-0,006) ACHANGE + (-0,021) DAR + 0,288 OSHIP + 0,005 ROA + 0,000 Inventory + (-0,001) BDOUT + (-0,072) AUDCHANGE + (-0,109) AO + 0,071 DCHANGE + e$$

Based on the regression model from table above then the results of multiple regression can be explained as follows:

- a. The constant value of 1.434 means that if the value of financial stability, external pressure, personal financial need, financial target, nature of industry, ineffective monitoring, auditor change, opinion audit, and director values are zero then the risk level of fraudulent financial statement is 1.434 unit.
- b. ACHANGE variable coefficient of -0.006. This means that every 1% increase in ACHANGE will lower the risk level of fraudulent financial statement by 0.6%.
- c. The coefficient of DAR variable is -0.021. This means that every 1% increase in DAR will lower the risk level of fraudulent financial statement by 2.1%.
- d. The coefficient of OSHIP variable is 0.288. This means that every 1% increase in OSHIP will increase the risk level of fraudulent financial statement by 28.8%.
- e. ROA variable coefficient of 0.005. This means that every 1% increase in ROA will increase the risk level of fraudulent financial statement by 0.5%.
- f. Inventory variable coefficient of 0,000. This means that any increase of 1% in Inventory will affect the level of risk of fraudulent financial statement of constant value.
- g. BDOUT variable coefficient of -0,001. This means that every 1% increase in BDOUT will lower the risk level of fraudulent financial statement by 0.1%.
- h. The coefficient of AUDCHANGE variable is -0.072. This means that every 1% increase in AUDCHANGE will reduce the risk level of fraudulent financial statement by 7.2%.
- i. The coefficient of variable AO is -0.109. This means that every 1% increase in AO will reduce the risk level of fraudulent financial statement by 10.9%.
- j. The coefficient of DCHANGE variable is 0,071. This means that every 1% increase in DCHANGE will increase the risk level of fraudulent financial statement by 7.1%.

RESULT AND DISCUSSION

Based on the calculation and analysis of the influence of independent variables partially to the dependent variable, it can be analyzed as follows:

The influence of financial stability (X1) on the occurrence of fraudulent financial statement (Y)

The first hypothesis test (H1) shows the financial stability variable (ACHANGE) to the probability of the company doing the fraudulent financial statement obtained coefficient of -0.006

means that every 1% increase in the ratio of total asset change will decrease the risk of fraudulent financial statement by 0.6% with the Yessiariani theory (2016) which states that "the smaller the value of ACHANGE, the less likely the fraudulent acts of financial statements will be lowered." The ACHANGE sig value is $0.341 > 0.05$ which means that ACHANGE is not significant at the 5% level. It can be concluded that ACHANGE does not affect the risk of fraudulent financial statement and H1 is rejected. The results of this study are supported by the results of research by Pardosi (2015) which states that "financial stability does not affect the risk of fraud financial statements." However, the results of this study are not in accordance with research Prasastie (2015) stating that "financial stability positively fraudulent financial statements. "

The influence of external pressure (X1) on the occurrence of fraudulent financial statement (Y)

The second hypothesis test (H2) shows the external pressure (DAR) variable to the probability of the company doing fraudulent financial statement obtained coefficient of -0.021 means that every 1% increase in the DAR ratio will decrease the risk of fraudulent financial statement by 2.1% Yessiariani (2016) stated that "the smaller the DAR value the less likely the fraudulent act of financial statements will be lowered." While the sig DAR value is $0.000 < 0.05$ which means that the DAR is significant at the 5% level. It can be concluded that DAR has no effect on the risk of fraudulent financial statement and H2 is rejected. The results of this study are supported by the results of research Pardosi (2015) stating that "external pressure does not affect the risk of fraud financial statements."

The influence of personal financial need (X3) on the occurrence of fraudulent financial statements (Y)

The third hypothesis test (H3) shows the variable of personal financial need (OSHIP) to the probability of the company doing fraudulent financial statement obtained coefficient of 0.288 means that every 1% increase in stock composition ratio owned by the company will raise the risk of fraudulent financial statement of 28.8% this is in accordance with Yessiariani theory (2016) which states that "the greater the value of OSHIP hence the possibility of fraudulent conduct of financial statements higher." While the OSHIP sig value of $0.044 < 0.05$ which means that OSHIP significant at level 5%. It can be concluded that OSHIP affects the risk of fraudulent financial statement and H3 accepted. The results of this study is supported by research Diany (2014) which states that "personal financial need has an influence on fraudulent financial statement."

The influence of financial targets (X4) on the occurrence of fraudulent financial statements (Y)

The fourth hypothesis test (H4) shows the financial targets variable (ROA) to the probability of the company doing fraudulent financial statement obtained coefficient of 0.005 means that each 1% increase in the ratio of total asset change will raise the risk of fraudulent financial statement of 0.5% Yessiariani theory (2016) which states that "the greater the value of ROA then the possibility of fraudulent acts higher financial statements." While the value of sig ROA of $0.231 > 0.05$ which means that ROA is not significant at the level of 5%. It can be concluded that ROA does not affect the risk of fraudulent financial statement and H4 is rejected. The results of this study are supported by research Diany (2014) which states that "target financial variables have no effect on fraudulent financial statement."

The influence of nature of industry (X5) on the occurrence of fraudulent financial statement (Y)

The fifth hypothesis testing (H5) shows the nature of industry (Inventory) variable to the probability of the company doing the fraudulent financial statement action 0.000 coefficient means that every 1% increase in the inventory change ratio will raise the risk of fraudulent financial statement by constant value, this is in accordance with the theory Pardosi (2015) which states that "the greater the value of inventory (Inventory) then the possibility of fraudulent acts of financial statements higher. While the value of sig Inventory of $0.803 > 0.05$ which means that Inventory is not significant at level 5%. It can be concluded that Inventory does not affect the risk of fraudulent financial statement and H5 is rejected. The results of this study are not in accordance with research Diany (2014) and Pardosi (2015) which states that "nature of industry variables affect the occurrence of fraudulent financial statements."

Effect of ineffective monitoring (X6) on the occurrence of fraudulent financial statement (Y)

The sixth hypothesis test (H6) shows the ineffective monitoring (BDOU) variable to the probability of the company performing the fraudulent financial statement obtained coefficient of -0,001 means that each 1% increase in the ratio of the number of independent board will decrease the risk of fraudulent financial statement by 0.01% according to the Yessiariyani theory (2016) which states that "the smaller the value of BDOU, the less likely the fraudulent acts of financial statements will be lowered." The BDOU sig value is $0.795 > 0.05$ which means that BDOU is not significant at 5% level. It can be concluded that BDOU has no effect on the risk of fraudulent financial statement and H6 is rejected. The results of this study are supported by the results of research by Pardosi (2015) and Prasastie (2015) which states that "ineffective monitoring negatively affects the risk of fraudulent financial statements." However, the results of this study are not in accordance with the results of research Diany (2014) "Ineffective monitoring variables have an influence on fraudulent financial statements."

Effect of auditor change (X7) on the occurrence of fraudulent financial statement (Y)

The test of the seventh hypothesis (H7) shows the auditor change variable (AUDCHANGE) to the probability of the company performing the fraudulent financial statement obtained coefficient of -0.072 means that each 1% increase in auditor replacement ratio will decrease the risk of fraudulent financial statement by 7.2% the Sihombing theory (2014) states that "the smaller the auditor turn (AUDCHANGE) the less likely the cheating action will be." While the AUDCHANGE sig score of $0.635 > 0.05$ means that AUDCHANGE is not significant at the 5% level. It can be concluded that AUDCHANGE does not affect the risk of fraudulent financial statement and H7 is rejected. The results of this study are supported by research by Pardosi (2015) and Prasastie (2015) which states that "auditor change has no effect on fraudulent financial statements." However, the results of this study are not in accordance with Diany's research (2014) which states that " has an influence on the fraudulent financial statement. "

The effect of audit opinion (X8) on the occurrence of fraudulent financial statement (Y)

The test of the eighth hypothesis (H8) shows the audit opinion variable (AO) to the probability of the company doing fraudulent financial statement obtained coefficient of -0.109 means that each 1% increase in AO ratio will decrease the risk of fraudulent financial statement by 10.9% Annisya (2016) stated that "the smaller the value of AO then the possibility of

fraudulent acts of financial statements is lower." While the value of sig AO of $0.470 > 0.05$ which means that AO is not significant at the level of 5%. It can be concluded that AO does not affect the risk of fraudulent financial statement and H8 is rejected.

Influence of director change (X9) on the occurrence of fraudulent financial statement (Y)

The test of the ninth hypothesis (H9) shows the director change variable (DCHANGE) to the probability of the company performing the fraudulent financial statement obtained by the coefficient of 0.71 means that each 1% increase in the ratio of directors replacement will increase the risk of fraudulent financial statement by 7.1% with the Sihombing theory (2014) which states that "the smaller the DCHANGE value the less likely the fraudulent acts of financial statements will be lowered." While the DCHANGE sig score of $0.583 > 0.05$ means that DCHANGE is not significant at the 5% level. It can be concluded that DCHANGE has no effect on the risk of fraudulent financial statement and H9 is rejected. The results of this study are not in accordance with research Pardosi (2015) stating that "the change of directors have a significant positive effect on the risk of fraud financial statements."

CONCLUSION

Based on research conducted on 10 food and beverage companies listed in the Indonesia Stock Exchange period 2012-2016, the following conclusions can be drawn: (1) Variable personal financial need (OSHIP) affect the occurrence of fraudulent financial statement. (2) Financial stability variables (ACHANGE), external pressure (DAR), financial target (ROA), nature of industry (Inventory), ineffective monitoring (BDOUT), auditor change (AUDCHANGE), audit opinion (AO) and director change (DCHANGE) does not affect the occurrence of fraudulent financial statements.

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