FRAUD DIAMOND FOR DETECTION OF FINANCIAL STATEMENT MISREPRESENTATION IN THE MANUFACTURING INDUSTRY

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A R T I C L E   I N F O

A B S T R A C T

This research was conducted to obtain empirical evidence regarding fraud, primarily due to fraud in financial reports based on the fraud diamond theory. This study tested six independent variables; financial stability, external pressure, financial targets, effective monitoring, rationalization, and capability. P-Score Model is used to detect potential fraudulent financial statements. The objects studied were 103 manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2015-2019 with 515 annual reports. The results of this study indicate that only two variables have an effect in detecting fraud in financial statements. The variables that have a significant effect are financial stability as proxied by the ratio of changes in assets and financial targets as proxied by the ratio of return on assets (ROA). Other variables represented by external pressure, effective monitoring, rationalization, and capability did not affect the detection of potential fraudulent financial statements. These findings may benefit auditors in predicting fraud in financial statements, considering the fraud diamond environment.

INTRODUCTION

In the last two decades, news related to world corporate scandals that commit financial statement fraud is no longer surprising. Enron, Worldcom, Global Crossing, and Tyco are the companies on the top list that cause the most significant losses and effects due to financial statement fraud. Over the past decade, fraud cases due to the manipulation of financial statements that are pretty large have occurred again in the Toshiba case (Alpeyev & Amano, 2015) and Phar Mor (Adnovaldi & Wibowo, 2019). This scandal of such magnitude raises global concerns about fraud which has caused a collapse in stock values and investor confidence in financial markets (Abdullahi & Mansor, 2015)

This fraudulent act is a factor that becomes a problem in the development of financial markets and negatively affects the company's growth. Misrepresentation of financial statements is a form of fraud by manipulating or not reporting financial statements correctly by management and has reduced investor confidence (Ozcelik, 2020). The Association of Certified Fraud Examiners (A.C.F.E.) released in Report to The Nation 2020 describes that fraud caused by misrepresenting financial statements is

10%. This amount is far less than the fraud caused by asset misappropriation of 86%.

However, the loss caused by the misrepresentation of financial statements was the largest, reaching US$954,000, while the total loss caused by asset misappropriation was only US$100,000. Losses caused by financial statement fraud increased by US$154,000 from losses in 2018, which was US$800,000. Losses caused by

financial statement fraud increased in 2020 compared to other types of fraud, where the number of losses decreased. Besides that, fraud caused by financial statement fraud can last longer than other frauds, namely for 24 months, with the highest loss rate of US$39,800 per month. Financial statement fraud is most commonly found in the banking, financial services, and manufacturing sectors(A.C.F.E., 2020).
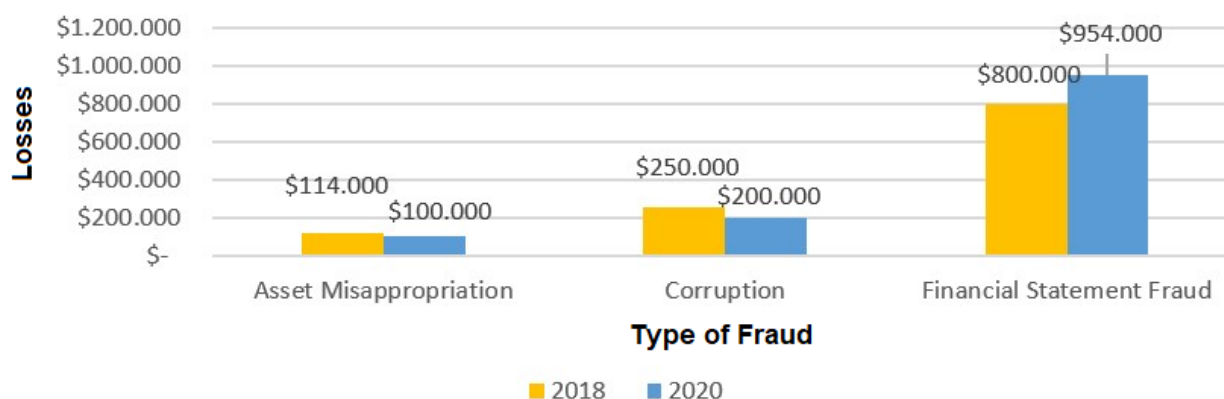

Figure 1. Types of Fraud and the Number of Losses Caused
Source: processed by authors from the Association of Certified Fraud Examiners (A.C.F.E., 2018) and A.C.F.E. (2020)

Cases of fraud on financial statements are also found in public companies in Indonesia. In 2001, a financial scandal occurred in a State-Owned Enterprise (B.U.M.N.) whose shares were listed on the IDX, namely P.T. Kimia Farma Tbk (Boediono, 2005). The fraud was discovered after the Ministry of B.U.M.N. at that time found indications of manipulation of financial statements, then the Capital Market Supervisory Agency (Bapepam) examined P.T. Kimia Farma Tbk due to these indications.

Based on the examination, Bapepam found misstatements that resulted in the overstatement of net income by Rp32.7 billion in the financial statements for the year ended 31 December 2001. The misstatements comprised 2.3% of sales and 24.7% of net income. Management carries out misstatements by inflating inventory prices approved by the director so that sales

and inventory overstatements occur (Bapepam, 2002). In addition, in 2005, PT Sari Husada Tbk, a manufacturing company, also found violations in the form of share buyback transactions carried out by management (Hutomo & Sudarno, 2012). In 2019, another case of misstatement of financial statements was found on the IDX. One of the misstatement cases occurred in the manufacturing sector, which was found at P.T. Tiga Pilar Sejahtera Food Tbk. Based on an investigative report by PT Ernst & Young Indonesia (EY), P.T. Tiga Pilar Sejahtera Food Tbk (A.I.S.A.) is indicated to have inflated several accounting posts that reached Rp4 trillion in financial statements published in 2017(CNBC Indonesia, 2019).

The scandal in the financial statements, especially in the manufacturing sector in Indonesia, indicates that there is still manipulation in the financial statements even though they have been supervised by

the audit committee and examined by public accountants. Financial statements are communication tools that provide helpful information for external parties, such as creditors and capital owners or investors, in making economic decisions. To achieve its objectives, the information in financial statements must be understandable to those who understand business and economic activities and wish to study the information. This follows the objectives of preparing financial statements in Statement of Financial Accounting Concepts (S.F.A.C.) No. 1 concerning Objectives of Financial Reporting by Business Entities (Wahyuninngtias, 2016). Therefore, financial statements must provide relevant and accurate information and be free from fraud that can cause bias in the decision-making process by external parties (Norbarani, 2012).

Fraud generally occurs due to the absence or ineffectiveness of appropriate prevention and detection mechanisms. The American Institute of Certified Public Accountants (A.I.C.P.A.) prepares and issues Statement on Auditing Standards No. 99 (S.A.S. No. 99) to provide solutions to weaknesses in existing fraud detection procedures (Skousen et al., 2008). Cressey (1953, quoted in Skousen et al., 2008) states that three indicators cause fraud and are risk factors for the emergence of fraud: pressure, opportunity, and rationalization, which became known as the fraud triangle.

These findings simultaneously require updating with the addition of a more representative theory which Wolfe and Hermanson later published. This factor is added because fraud is not possible without the ability of the perpetrator. In the fraud diamond theory, a person's ability is considered an essential factor in committing fraud (Ruankaew, 2016). In a publication by Crowe Horwath L.L.P. (2011), It is stated that the fraud triangle is inadequate in explaining the fraud risk factors that have developed since the 1950s. Therefore, they developed a fraud theory in 2011 called the

fraud pentagon. The Fraud pentagon theory provides an additional risk factor, namely arrogance, so there are five risk factors in fraud (Puspitha & Yasa, 2018).

Along with developing the company's condition, researchers are also looking for other factors that can cause fraud in the company. The latest research is research byVousinas (2019) which explains the development of fraud theory with the SCORE model called the fraud hexagon. Elements that become risk factors in the fraud hexagon are stimulus, capability, collusion, opportunity, rationalization, and ego. The elements described in the fraud theory, ranging from the fraud triangle, the fraud diamond, the fraud pentagon, and the fraud hexagon, are clues or indications of something unusual (red flags) before the fraud occurred.

This study uses the fraud diamond theory because: in research by Christian et al. (2019), analysis using the theory of fraud triangle, fraud diamond, and fraud pentagon can effectively detect fraud in financial statements, where all the variables studied use secondary data that can be accessed freely by the public. In addition, Sari & Nugroho (2020) research tries to find a quantitative measure that represents collusion in the fraud hexagon model, but the measurement is still limited to the information available in the annual report. This becomes a suggestion in research by Sari & Nugroho (2020). They suggest furthering researchers who want to examine the fraud hexagon model to use information other than secondary data from companies, for example, information from parties related to the acquisition of government projects. This is also in line with Vousinas's (2019) research, which suggests a broader measure to represent collusion.

The author examines the effect of fraud *diamonds* against report misrepresentation finance regarding research by Skousen et al. (2008), which examines the effectiveness of the fraud risk factor framework by Cressey (1953) with S.A.S. No. 99 and research by

Ozcelik (2020), which uses the fraud diamond theory and the P-Score model byPustylnick (2011) to detect fraud in financial statements. Pustylnick (2009) introduces a new P-Score model formula, which is a modification of the P-Score model related to the Altman Z-Score formula, which creates a new approach to detect indications of financial statement fraud, the dependent variable in this study.

The P-Score utilizes data from several company annual reports as a sample to identify indications of manipulation in the financial statements and provides an 82.76% opportunity for fraud detection. In Indonesia, previous studies have tested several models to detect financial statement fraud, including research with the F-Score model byAdnovaldi and Wibowo (2019) and Irawan et al. (2019). Other studies use the Beneish model *M-Score* by Tiffani and Marfuah (2015) and Supri et al. (2018) and using the Modified Jones Model or earnings management by Sihombing and Rahardjo (2014) and Sunardi and Amin (2018). Research using the P-Score has not been found in Indonesia, which differs from previous studies examining diamond fraud.

Research Reason

The author examines the manufacturing sector because of some common phenomena and scandals in the manufacturing sector in Indonesia. In addition, according to the 2019 Indonesia Fraud Survey, the manufacturing sector was the sector that suffered a loss of 4.2% due to fraud and was ranked fourth after the financial and banking industry, government, and mining industries. Companies in the manufacturing sector also have longer business and accounting processes than other sectors, increasing the potential for fraud.

The manufacturing sector was also chosen because of the completeness of the accounts and data in the financial statements needed to calculate the ratios. The selection of the research year for 2015 to 2019 is based on Adi Novaldi and Wibowo's

(2019) suggestions in their research, which states that future researchers should research at least five years back so that more samples are available obtained and the results can reflect the facts.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT
Agency Theory

Agency theory describes the relationship between agents as managers in the use of resources and principals as resource owners. The relationship between the agent and the principal, as described by Jensen and Meckling (1976), started because of the contract between them and the delegation of authority and decision-making to the agent (Gudono, 2012). The principal consists of stakeholders who provide funds for the company, namely shareholders, creditors, or the government. Agents are company managers who are given the power to manage the company. Management as an agent should increase profits for the principal, but as a company manager, management also wants to improve their welfare (Ujiyanti & Pramuka, 2007, quoted in Annisya et al., 2016). Agents and principals want to increase their respective wealth and cause conflicts of interest and agency problems.

This is also supported by the difference in the information held by management as an agent and principal, which causes information asymmetry. Agents then use asymmetric information to hide and increase profits by manipulating financial statements. Godfrey et al. (2010) revealed that another thing that causes agency problems is that the principal and agent both desire to maximize their respective profits, which motivates the agent to act not in line with the interests of the principal.

Misrepresentation of Financial Statements

According to Tunakotta (2013), fraud is a violation of the law with intent, concealment, fraud, and misuse of trust in the form of money, goods, or other assets that contains an intentional element.

A.C.F.E. (2016) divides fraud based on actions into three types or typologies: asset misappropriation, financial statement fraud, and corruption. Karyono (2013) describes financial statement fraud as an overstatement or understatement of accounts in the financial statements. The practice of overstatement in financial statements is carried out to gain profits through the sale of shares, facilitate the financing process, and increase the profits earned to cover the company's poor performance. On the other hand, the practice of understatement in the financial statements is carried out to avoid the tax paid by the company is too high. Tunakotta (2014), in the Internal Standard Auditing, adds that fraud is an intentional misstatement of amounts. This is done to profit and cover the misuse or misappropriation of assets (Halim, 2008). In addition to intentional misstatements, there are also errors or errors that occur due to unintentional elements. The errors or errors referred to include errors in accounting estimates, errors in the application of accounting standards related to the presentation of financial statements, as well as data collection and processing (Agoes, 2012).

Detection of Financial Statement Misrepresentation

Management should provide financial statements that are true, relevant, and free from fraud. Meanwhile, financial statement fraud is hidden, so it must be detected to discover any fraud indications. Several models to detect financial statement misrepresentation are Fraud Score Model in researchSkousen and Twedt (2009), Beneish *M-Score* in Beneish (1999), Discretionary Accrual with Modified Jones model inSunardi and Amin (2018), Altman Z-Score in Altman (2000), and the P-Score in Pustylnick (2011). This study will use the P-Score model by Pustylnick to detect fraud in financial statements.

P-Score, The model, estimates that income and intangible assets are manipulated in the financial statements to verify the possibility of fraud(Pustylnick, 2011). P-Score is measured through the following formula.

$$P = 1.2*X1 + 1.4*X2 + 3.3*X3 + 0.6*X4 + 1.0*X5$$

Information:

X1	=	*Shareholders Equity/Total Assets.*
X2	=	*Retained earnings/Total Assets.*
X3	=	*Earnings before Interest and Taxes/Total Assets.*
X4	=	*Market Value Equity/ Book Value of Total Liabilities.*
X5	=	*Revenue Total Assets.*
P	=	*Overall Index*

Altman (1968) states that Z-score predicts the company's failure or bankruptcy by calculating financial ratios. Z-score is also quite effective in measuring whether the company manipulates its financial statements (Bhavani & Amponsah, 2017). This model changes over time as people have found a more comfortable model to use (Altman, 2000), measured by the following formula.

$$Z = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5$$

Information:

X1	=	*Working Capital/ Total Assets.*
X2	=	*Retained earnings/ Total Assets.*
X3	=	*Earnings before Interest and Taxes/ Total Assets.*
X4	=	*Market Value Equity/Book Value of Total Liabilities.*
X5	=	*Sales/ Total Assets*
Z	=	*Overall Index*

Pustylnick (2011) combined the P-Score and Altman Z-Score models to detect financial statement misrepresentations. This model estimates the value of P and then compares it with Z. When P>ΔZ, there is an indication of misrepresentation in the financial statements. The following formula measures P and Z.

$$\Delta P = \frac{P_t - P_{t-1}}{|P_{t-1}|} \qquad \Delta Z = \frac{Z_t - Z_{t-1}}{|Z_{t-1}|}$$

Fraud Diamond

Cressey (1953, quoted in Skousen et al., 2008) describes the factors that influence fraud, known as the fraud triangle: pressure, opportunity, and rationalization. This study concludes that three main factors lead to fraudulent behavior as follows:

a. *Non-shareable financial problems (Pressure)*
People are more likely to violate or commit fraud when they have unresolved financial problems. They will tend to take illegal actions because of these conditions.

b. *Opportunity to commit the trust violation (Opportunity)*
Opportunities to commit crimes to arise when one sees how one is positioned to solve financial problems. The chances of not being caught will increase the criminal's chances of committing a crime.

c. *Rationalization by the trust violator (Rationalization)*
Most fraudsters think they are honest people trapped in bad situations. This condition becomes the justification or justification for their crimes.
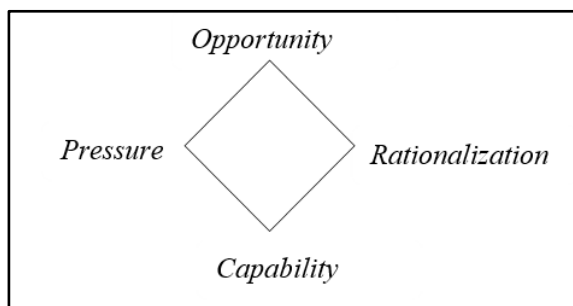

Figure 2. *Fraud Diamond*
Source: Pardosi (2015)

Further research by Wolfe and Hermanson (2004) introduces fraud diamonds with another factor in the fraud triangle: capability. Wolfe and Hermanson (2004) explain that ability is the main element that drives fraud, in addition to the three elements in the fraud triangle. Hay (2013, quoted in Shelton, 2014) adds that opportunities to commit acts of fraud and opportunities to commit fraud are increasingly open to the presence of one's abilities. Identical characteristics and building capabilities are position power, immunity to stress, intelligence, ego/confidence, coercion skills, and effective lying.

Hypothesis Development
Financial Stability

Referring to S.A.S. No. 99, when financial stability or the company's profits are threatened due to economic conditions or operating conditions, this will put managers under pressure, which encourages them to commit fraud (Skousen et al., 2008). This pressure can cause managers to commit fraud and misrepresent financial statements. Companies must show assets with a higher amount than they should meet investors' high expectations. The increasing rate of change in total assets indicates companies' increasing possibility of fraud. This variable is supported by the research of Supri et al. (2018), which states a relationship between financial stability and fraud in financial statements. This study will use the rate of change in assets as a proxy. High asset changes positively affect the possibility of fraudulent financial statements.

H1: The element of pressure in the fraud diamond, as measured by financial stability, has a positive effect on fraud in the financial statements

External Pressure

External pressure can be described as pressure from outside the company that requires managers to produce a good performance and attract potential investors. This motivates companies to manipulate earnings (Supri et al., 2018). The pressure most frequently faced by management is the demand to fulfill contractual requirements for financing through debt. Management will commit fraud to fulfill the terms of the debt contract. This shows that the possibility of committing fraud increases when the debt value increases (Indarto & Ghozali, 2016). One of the leverage ratios, namely the debt-to-assets ratio, will be a

proxy in this study because the debt value positively affects the possibility of fraud in the financial statements.

H2: The element of pressure in the fraud diamond, as measured by external pressure, has a positive effect on fraud in the financial statements

Financial Targets

Financial targets merge as pressure from internal parties due to demands to meet targets or achievements, including acquisition targets and increased profits (Supri et al., 2018). When the Return on Assets (ROA) increases, the smaller the potential for companies to commit fraud in financial statements (Ozcelik, 2020). On the other hand, the company's management will try to manipulate the financial statements if there is a decrease in ROA. Companies may manipulate financial statements by increasing the ROA value to achieve the company's financial goals or targets. Based on the description, ROA negatively affects fraud in financial statements, so it is used as a proxy in this study.

H3: The pressure element in the fraud diamond, as measured by financial targets, hurts fraud in the financial statements

Effective Monitoring

Adequate supervision can reduce the possibility of fraud. Ineffective audits and supervision will open up opportunities for fraud in financial statements (Manurung & Hardika, 2015). One of how effective supervision can be realized is the existence of an audit by an external auditor. The experience and skills of external auditors are an obstacle for management to commit fraud. The size of the audit firm or Public Accounting Firm (K.A.P.) and audit quality have a positive effect because K.A.P.s that are larger or registered in the Big Four K.A.P.s tend to publish more accurate reports because of their reputation and awareness to safeguard their assets and good reputation. This is explained by DeAngelo (1981) in his research which

provides an overview of the significant positive relationship between audit firm size and audit quality. Based on the description, effective supervision with audits from the Big Four K.A.P. auditors negatively influences financial statement fraud. Effective monitoring is then measured by whether the external audit is carried out by a public accounting firm that is part of the Big Four K.A.P. with a dummy variable.

H4: The opportunity element in the fraud diamond, as measured through effective monitoring, harms fraud in the financial statements

Rationalization

Rationalization is an attitude that considers it natural if someone commits a crime. Companies that commit fraud will replace their independent auditors to cover up the fraud committed. Skousen et al. (2008) explained that auditor replacement could indicate fraud in financial statements. At the beginning of his assignment, the new auditor will enter a period of adjustment and have not mastered all the company conditions so that acts of fraud and management who commit fraud can escape the auditor's supervision (Irawan et al., 2019). Loebbecke et al. (1989, cited in Skousen et al., 2008) also argue that the risk of audit failure is higher in the early years of the auditor's audit period in newly audited companies than in the years after.

H5: The element of rationalization in the fraud diamond, as measured by the change in auditor, has a positive effect on fraud in the financial statements

Capability

Ability, a new factor introduced in diamond fraud, explains that fraud occurs because subjects have the ability (Wolfe & Hermanson, 2004). Personal abilities can be referred to as white-collar crimes committed by people with high social status and professional positions. The measurement of capability in fraud diamond has used a different measurement approach. For example, in research by Ozcelik (2020), the

capability is measured by a robust institutional structure as measured by the corporate governance index. Another measurement with changes or changes in directors is considered a scale (Sunardi & Amin, 2018; Supri et al., 2018). In this research, The author tries to use the approach used in Surjaatmaja's research (2018) to proxy the capability variable. The capability variable is measured by the financial education background of the company's C.E.O. or C.F.O. This refers to the explanation of Wolfe and Hermanson (2004) in their research that fraudsters are intelligent people, so they can understand

weak internal control gaps in the company and take advantage of their position and authorization to carry out fraudulent actions. In their research, Beasley et al. (1999) found that C.E.O.s are involved in 70% of fraud in accounting reporting. Many organizations do not perform adequate balance checks to mitigate the C.E.O.'s capability to commit fraud.

H6: The element of capability in the fraud diamond, as measured by capability, has a positive effect on fraud in the financial statements
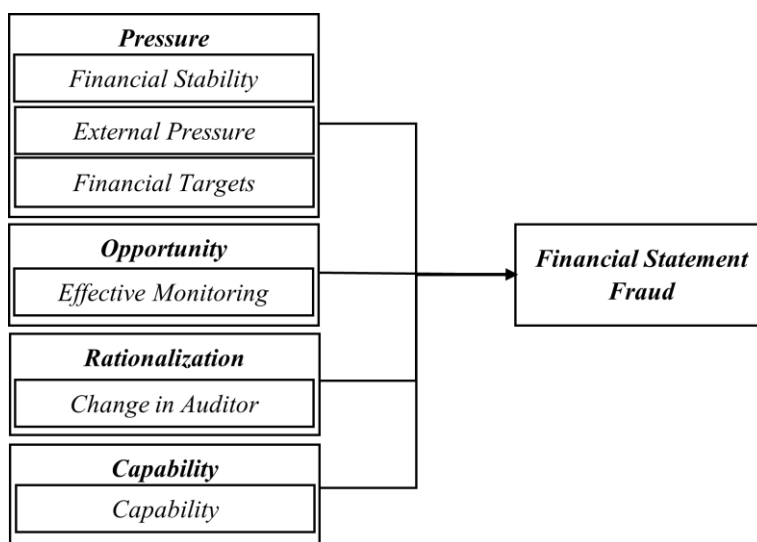

Figure 3. Research Model

RESEARCH METHODS
Types of Research and Data

Quantitative methods are used to answer the research questions and examine the relationship between variables by using methods to test specific theories. Annual reports published in the period 2015 to 2019 by manufacturing companies are secondary data observed in the study and become the population in this study. The annual report is collected from the official IDX website (www.idx.co.id), the Indonesian Capital Market Directory (I.C.M.D.), the company website, and other relevant sources. Purposive sampling, part of the non-probability sampling method, was chosen

as a sampling method in this study. The sample was selected based on the following criteria.

a. Companies in the manufacturing sector and listed on the IDX as of 1 January 2015.

b. Companies with complete annual reports for the 2015-2019 period.

c. Manufacturing sector companies use Rupiah as the presentation currency.

d. The company did not change or shift to other sectors from 2015-2019.

e. The company was not delisted from the IDX from 2015-2019.

Research variable

The dependent variable is the dependent variable that is the main focus of the research (Now, 2006). Researchers researched to predict and find the effect of the independent variable on the dependent variable. The dependent variable tested is fraud in the financial statements and is measured by a modified P-Score and Z-Score. Before being tested with this approach, the financial statements were separated into two groups: the financial report group with indications of fraud and the financial report group without indication of fraud. The division of groups is done by calculating the P-Score and Z-Score, then calculating and$\Delta P \Delta Z$referring to research (Pustylnick, 2011).

The variable that can affect the outcome of the dependent variable is the independent variable. The influence of the independent variable on the dependent variable can be in the form of a positive or negative influence. The fraud diamond is represented by certain variables and is the independent variable used in this study. The pressure element is measured through financial stability, external pressure, and financial targets. The opportunity element is measured through effective monitoring. Elements of rationalization are measured through changes in auditors.

The capability element is measured through capability.
a. *Financial Stability*(FS)
Financial stability is measured through the ratio of changes in total assets, referring to researchSkousen et al. (2008). The ratio of the addition of total assets this year compared to the previous year was used, considering the increasing possibility of fraud seen from the higher ratio of changes in total assets.

b. *External Pressure*(EP)
External pressure is measured using the leverage ratio, namely the debt-to-assets ratio (Skousen et al., 2008). This measurement is used because the company's ability to meet debt requirements and loan repayments is one source of external pressure from third parties.

c. *Financial Targets*(FT)
Financial targets are prepared to be a measure of management performance. The higher the target set, the higher the possibility of fraud or manipulation in the financial statements. This study uses ROA as one of the profitability ratios often used to measure company performance, referring to research by Skousen et al. (2008).

d. *Effective Monitoring*(EM)
The measurement of adequate supervision is carried out with a dummy variable: code 1 addresses companies audited by K.A.P. Big Four, while code 0 addresses companies audited by K.A.P. other than K.A.P. Big Four. Big Four K.A.P.s are K.A.P.s affiliated with Ernst & Young (EY), Deloitte, K.P.M.G., and PricewaterhouseCoopers (PwC).

e. *Change in Auditor*(CIA)
Rationalization is a justification for improper conduct associated with a change in auditors. The replacement of auditors in the company is considered an effort by the company to eliminate traces of fraud found by the previous auditor (Irawan et al., 2019). Rationalization was measured using a dummy variable. If there is a change of auditor or K.A.P. in the 2015-2019 period, it is coded 1. Code 0 is given if there is no replacement of the auditor or K.A.P. in that period.

f. *Capability*(STAMP)
A person's ability to penetrate existing internal controls, develop sophisticated and complex fraud strategies, and influence others to cooperate by controlling situations and conditions is part of capability. (Aprilia, 2017). A dummy variable measured capability in this study. Code 1 is for companies with

a C.E.O. or C.F.O. with a financial education background, and code 0 is for companies with a C.E.O. or C.F.O. without a financial education background.

Table 1. Research and Measurement Independent Variables

Fraud Risk Factor	Measurement	Formula	Scale
Pressure	Financial Stability (F.S.)	$ACHANGE = \frac{Total\ Asset_t - Total\ Asset_{t-1}}{Total\ Asset_{t-1}}$	Ratio
	External Pressure (E.P.)	$LEV = \frac{Total\ Liability}{Total\ Asset}$	Ratio
	Financial Targets (F.T.)	$ROA = \frac{Net\ Income}{Total\ Asset}$	Ratio
Opportunity	Effective Monitoring (E.M.)	Dummy variable Auditor of Big Four CPA=1 Auditor of non-Big four CPA=0	Nominal
Rationalization	Change in Auditor (C.I.A.)	Dummy variable With auditor changes=1 Without auditor changes=0	Nominal
Capability	Capability (C.A.P.)	Dummy variable CEO/ CFO with financial education background=1 CEO/ CFO without financial education background-0	Nominal

Source: Skousen*et al.*(2008),Surjaatmaja (2018), Ozcelik (2020).

RESULTS AND DISCUSSION

Of the 712 companies listed on the IDX as of 1 January 2015, 193 belong to the manufacturing sector, and 136 are listed. A summary of the research sample selection criteria is presented in Table 2.

Table 2. Research Sample Selection

No	Criteria	Number
1	A public company listed on IDX as of November 2020	712
2	Companies that are not included in the manufacturing sector	(519)
3	Manufacturing sector companies listed on the IDX after 1 January 2015	(57)
4	Manufacturing companies that issue financial statements other than in Rupiah currency	(28)
5	Manufacturing companies that did not publish complete annual reports during 2015-2019	(5)
6	Manufacturing companies that were delisted during 2015-2019	(0)
7	Companies that switch sectors from the manufacturing sector	(0)
8	Sample companies that meet the criteria	103
9	The number of research samples = 103 X 5 years	515

Source: processed from the company's annual report, https://www.idx.go.id, and https://www.idnfinancial.com

Descriptive Statistical Analysis

A descriptive statistical analysis of the data to be processed for use in research is compiled before testing the primary research model to present a general description of the processed data so that it is easier to understand and study. Descriptive statistical analysis also provides an overview of the size of the data concentration with the mean (average) and the distribution of the data, including the max (maximum), min (minimum), and standard deviation values. Descriptive statistical analysis on variables that include elements of fraud diamond is presented in the form of descriptive statistics as a whole on all observational data variables and descriptive statistics based on two groups of observations according to categories, namely financial statements with

indications of fraud and financial statements without indications of fraud.

The dependent variable in this fraud diamond model is the presence or absence of indications of fraud in the financial statements. This dependent variable is represented by the F.F.R. code and is divided into two value categories, namely 1 and 0. The F.F.R. variable is assigned a value of 1 if the financial statements indicate fraud, indicated by the change in the P-Score value, which is more than the change in the Z-Score ($\Delta P > Z$). The F.F.R. variable is assigned a value of 0 if the financial statements do not indicate fraud, indicated by the value of the change in the P-Score, which is less than the value of the change in the Z-Score ($\Delta P < Z$). The descriptive statistics of the F.F.R. variable and the variables that represent the fraud diamond are presented in Table 3.

Table 3. Descriptive Statistics of the Diamond Fraud Model

Var	N	mean	Std. Dev.	Min	Max
FFR	515	0.5553	0.4974	0	1
FS	515	0.1057	0.4455	-0.85	8.85
EP	515	0.5090	0.4119	0.04	3.74
FT	515	0.0481	0.1120	-0.40	0.92
EM	515	0.3612	0.4808	0	1
CIA	515	0.1553	0.3626	0	1
STAMP	515	0.9126	0.2827	0	1

Source: processed from observed financial statements

Table 3 shows the amount of data (Valid N) observed in this study, as many as 515 samples from annual reports published by manufacturing sector companies listed on the IDX from 2015 to 2019. The results of descriptive statistics in Table 3 show that the average of these dependent variables of 0.5553 means that, on average, the research sample companies have a risk of indicated fraud of 55.5%. The standard deviation

value of 0.4974 is the data distribution, which is smaller than the average, meaning that the data is spread evenly. The min and max values for the F.F.R. variable are 0 and 1, respectively, because the F.F.R. variable is a dummy variable.

F.S. Variable Descriptive Statistical Analysis

In Table 4, descriptive statistics of F.S. are presented based on the presence or absence of indications of fraud in the financial statements of observational data. The mean value of F.S. in the financial statements with indications of fraud is 12.02%, while in the financial statements without indications of fraud, it is 8.77%. The standard deviation, which indicates the variability of the F.S. number in the financial statements indicated by fraud, has a higher value than the financial statements without indications of fraud.

If the F.S. affects the presence or absence of indications of fraud in the financial statements, a high F.S. value can indicate an indication of fraud. The F.S. variable proxies the pressure element in the fraud diamond. Based on the descriptive statistical analysis results, the F.S. variable describes the difference in the value of the financial statements indicated by fraud. F.S., which indicates the company's stability, shows a more excellent value in the financial statements indicated by fraud. It can be assumed that the company is trying to show good stability with a significant increase in asset value.

Table 4. F.S. Descriptive Statistics based on F.F.R.

Fraudulent Financial Report					
	N	mean	Std. Dev.	Min	Max
FS	286	0.1202	0.5541	-0.8545	8,8502
Non-fraudulent Financial Report					
	N	mean	Std. Dev.	Min	Max
FS	229	0.0877	0.2512	-0.7918	2.0842

Source: processed from observed financial report data

E.P. Variable Descriptive Statistical Analysis

Table 5 shows descriptive statistics of E.P. with a mean (average) ratio of liabilities to assets of 0.5090, meaning that 1% of total assets guarantee 50.90% of total debts. Table 5 shows that financial statements with indications of fraud have a ratio of liabilities to assets smaller than the average, and financial statements that do not indicate fraud have a ratio higher than the company average. The E.P. value in the financial statements indicated by fraud is 0.4990, while the E.P. value in the financial statements without indications of fraud is 0.5216.

The E.P. variable is a proxy for the pressure element in the fraud diamond. Based on the descriptive statistical analysis results, the E.P. variable shows different values in the financial statements indicating fraud. The E.P. variable shows pressure from outside the company, which is represented by the amount of the ratio of liabilities to assets and has a value that is smaller than the average for other companies in the financial statements indicated by fraud. Thus, descriptive statistical analysis of observational data on the E.P. variable, a proxy for pressure in the fraud diamond, shows differences in conditions in the financial statements that indicate or do not indicate fraud.

Table 5. E.P. Descriptive Statistics based on F.F.R.

Fraudulent Financial Report					
	N	mean	Std. Dev.	Min	Max
EP	286	0.4990	0.3575	0.0651	3.7445
Non-fraudulent Financial Report					
	N	mean	Std. Dev	Min	Max
EP	229	0.5216	0.4717	0.0401	3.5933

Source: processed from observed financial report data

F.T. Variable Descriptive Statistical Analysis

Table 6 shows the mean value of the F.T. variable of 0.0481, meaning 4.81% of the company's ability to generate profits from its total assets. Table 6 shows that the F.T.

observation data on the financial statements indicated by fraud has a lower mean value of 3.91% compared to those not indicated by fraud, which is 5.94%. If F.T. is clear, financial statements containing fraud tend to have lower ROA values. The F.T. variable is a proxy for the pressure element in the fraud diamond.

Based on the descriptive statistical analysis results, the F.T. variable shows a difference in the value of the financial statements indicated by fraud and the financial statements, not a fraud. F.T., which indicates financial targets, shows a lower value in financial statements that indicate fraud. It can be assumed that the financial target condition was not achieved because it was lower than the average. This resulted in pressure on the company to commit fraud in order to achieve the company's financial target.

Thus, a descriptive statistical analysis of observational data on the F.T. variable, which is a proxy for pressure on fraud diamonds, shows that there are different conditions in the presence or absence of indications of fraud in the financial statements.

Table 6. F.T. Descriptive Statistics based on F.F.R.

Fraudulent Financial Report					
	N	Mean	Std. Dev.	Min	Max
FT	286	0.0391	0.1206	-0.4014	0.9210
Non-fraudulent Financial Report					
	N	mean	Std. Dev	Min	Max
FT	229	0.0594	0.0995	-0.2727	0.6072

Source: processed from observed financial report data

Descriptive Statistical Analysis of E.M. Variables

Table 7 shows that financial statements with indications of fraud were audited by the Big Four K.A.P.s, namely 38.11%, compared to those that did not contain fraud, which was 33.62%. Companies that use the services of the Big Four K.A.P.s are

found to have more indications of fraud than companies whose auditors are from non-Big Four K.A.P.s. As a proxy for the opportunity element in the fraud diamond, the results of the E.M. descriptive analysis show differences in the selection of external auditors who audit financial statements with indications of fraud compared to financial statements without indications of fraud.

Table 7. E.M. Descriptive Statistics based on F.F.R.

Fraudulent Financial Report					
	N	mean	Std. Dev.	Min	Max
EM	286	0.3811	0.4865	0	1
Non-fraudulent Financial Report					
	N	mean	Std. Dev	Min	Max
EM	229	0.3362	0.4735	0	1

Source: processed from observed financial report data

C.I.A. Variable Descriptive Statistical Analysis

The C.I.A. variable descriptive statistics results in Table 8 show that 14.69% of companies with financial statements indicated by fraud replaced external auditors, while 16.59% of companies with financial statements not indicated by fraud. The descriptive analysis results show a minor change in auditors who audit financial statements in financial statements containing fraud. Thus, the rationalization of fraud diamonds proxied through the C.I.A. statistically shows a difference between financial statements with indications of fraud and those without fraud.

Table 8. C.I.A. Descriptive Statistics based on F.F.R.

Fraudulent Financial Report					
	N	Mean	Std. Dev.	Min	Max
CIA	286	0.1469	0.3546	0	1
Non-fraudulent Financial Report					
	N	Mean	Std. Dev	Min	Max
CIA	229	0.1659	0.3728	0	1

Source: processed from observed financial report data

C.A.P. Variable Descriptive Statistical Analysis

The descriptive statistics on the C.A.P. variable in Table 9 show that 90.56% of companies with financial statements indicated by fraud have a C.E.O. or C.F.O. with a financial education background, while in companies with financial statements not indicated by fraud, it is 92.14%. The results of the descriptive analysis show that C.E.O.s or C.F.O.s with financial education backgrounds are more commonly found in companies without indications of fraud than companies with indications of fraud. This shows that there is only a slight effect of capability in fraud diamonds on the possibility of fraud in financial statements.

Table 9. C.A.P. Descriptive Statistics based on F.F.R.

Fraudulent Financial Report					
	N	mean	Std. Dev.	Min	Max
STAMP	286	0.9056	0.2929	0	1
Non-fraudulent Financial Report					
	N	mean	Std. Dev	Min	Max
STAMP	229	0.9214	0.2697	0	1

Source: processed from observed financial report data

Hypothesis test

Multicollinearity Test

In logistic regression, it is not necessary to test the assumptions of normality and heteroscedasticity because the assumption of the multivariate normal distribution cannot be fulfilled. After all, the dependent variable in this study is categorical (nonmetric data). However, multicollinearity testing can still be done because this test only determines the level of correlation between the independent variables. Multicollinearity testing was conducted to ensure no relationship or high correlation between the independent variables. A tolerance value < 0.1 indicates multicollinearity between independent

variables, while a V.I.F. value of more than 10 (V.I.F.> 10) indicates multicollinearity between independent variables. A tolerance value > 0.1 and a V.I.F. value < 10, as shown in Table 10, indicates the absence of multicollinearity between variables.

Table 10. V.I.F. Value on the Fraud Diamond Model Independent Variable

Variable	Tolerance	VIF
FS	0.980	1.020
EP	0.937	1.067
FT	0.871	1,149
EM	0.889	1.125
CIA	0.958	1.044
STAMP	0.981	1.019

Source: Processed from S.P.S.S. 25. application

Overall Model Fit Test

The overall model fit test (test for the suitability of the overall model) was carried out to find out the research model, either before or after the independent variables were included, whether the model fit with the data by comparing the value of -2 log-likelihood (-2LL) in the regression model consisting of constants or without variables—independent (Block 0) with a model that has included the independent variable (Block 1). The smaller the value of -2LL, the better the model used. The lowest value of -2LL is 0, meaning that a model with a value of -2LL of 0 is perfect.

The comparison of the value of -2LL before and after the independent variable was entered is presented in Table 11. The value of -2LL in the model without independent variables is 707,620, whereas when the independent variable is entered, the value of -2LL becomes 697,192 or decreased by 10,428. The lower value of -2LL after the inclusion of independent variables shows that the research model with the inclusion of independent variables is better than the model without including the independent variables.

Table 11. Overall Model Fit Test Results and Chi-Square Fraud Diamond Value

	-2 Likelihood Logs
Block 0 (df=1)	707,620
Block 1 (df=6)	697,192

Source: Processed from S.P.S.S. 25 application

The next test is an *omnibus test* of the model coefficients to determine whether there is a significant effect on the independent variable on the dependent variable. Simultaneous model testing is done by looking at the model level's chi-square, degree of freedom, and significance. Using a significance level of 5% (α = 5%), the model is declared fit if the significance value is lower than 5%. The results of the first omnibus test showed that the significance was 10.8%, so the independent variables included in the tested model did not have a significant effect on the dependent variable. This can be caused by data outliers (outliers), namely data that deviates far from other data so that the model becomes less good.

The author tries to use the winorizing or winsor method on observational data, which is a procedure used to minimize the effect of outliers in the data by setting outlier weights and changing the values on the mean and variance so that they approach other values in the set and create stronger estimators and variability (Dixon, 1960). With the Winsor method, data points are modified, not trimmed or removed, as in the trimming method or data deletion, which can cause the deletion of data points that are already valid and bias the observed data. The Winsor method is carried out using the STATA 14.2 application with a winsorization level of 95%, meaning that 5% of the data is modified from each tail area (2.5% of the top and bottom data of the data points) so that 95% of the data is not modified or fixed.

Table 12 shows the results of the omnibus test after the data on the independent variables F.S., E.P., and F.T., which are metric data, are adjusted using

the Winsor method. The results of the omnibus test show that the significance is 0.6%, meaning that the independent variables included in the tested model influence the model, and the model is declared fit. Chi-square shows the difference in the value of -2LL on the model without independent variables and models that have included independent variables. Df (degree of freedom) shows the number of independent variables used in the model. The data used for the goodness of fit test, the coefficient of determination test, and the Wald test have been modified by the Winsor method on the variables F.S., E.P., and F.T.

Table 12. *Omnibus Test* on the Diamond Fraud Model Coefficient After Adjusting the Winsor Method

	Chi-Square	df.	Significance
Step	18,139	6	0.006
Block	18,139	6	0.006
Model	18,139	6	0.006

Source: Processed from S.P.S.S. 25 application

The goodness of Fit Test

The goodness of fit test uses the Hosmer and Lemeshow Test to determine the feasibility or accuracy of the model by looking at the suitability between the empirical data and the data examined through the model. If there is no difference between the two, then the model is said to be fit. The test is carried out by testing the chi-square value of the test results against the chi-square table value using a significance level greater than 5%.

Table 13 shows these tests' results and the calculated chi-square value of 12,902. The value in the chi-square table for the degree of freedom 8 using a significance level of 5% is 15.5073. This illustrates that the calculated chi-square is smaller than the chi-square table, with a significance level of 11.5% or greater than 5%. Thus, the model can be said to be fit and acceptable.

Table 13. Results *Homer and Lemeshow Diamond Fraud Test*

Chi Square	Degree of freedom	Significance
12,902	8	0.115

Source: Processed from S.P.S.S. 25 application

Coefficient of Determination Test

The coefficient of determination test was carried out in this study to determine the pseudo r square, which is a measure to see the ability of the independent variable to explain the dependent variable in logistic regression. The value of r square in logistic regression imitates r square in linear regression but cannot explain precisely as r square in linear regression, so it is called pseudo r square.

The value of pseudo r square can be found using Nagelkerke R Square. Table 14 shows that the Nagelkerke R Square of the tested model is 4.6%. This value implies the ability of the independent variables in this model to explain the dependent variable, namely the F.F.R. of 4.6%, and the other 95.4% can be explained by other factors outside the model that explain the dependent variable.

Table 14. Model *Summary of Fraud Diamond*

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
689,481	0.035	0.046

Source: Processed from S.P.S.S. 25. application

Table 15 shows the power of the model to correctly predict the presence of indications of fraud or fraud in the financial statements of 79.4%, meaning that there are 227 annual reports out of a total of 286 annual reports that indicate fraud. In addition, the table also shows that the power of the model to correctly predict the absence of fraud or fraud in the financial statements is 30.6%, which is 70 annual reports out of a total of 229 annual reports that do not indicate fraud. Thus, it can be concluded that the overall predictive power of the model in classifying its observations is 57.7%.

Table 15. Classification Table of Accuracy of Diamond Fraud Predictions

Observation		Prediction		Percentage of Accuracy
		Fraudulent Financial Reporting (F.F.R.)		
		0	1	
FFR	0	70	159	30.6%
	1	59	227	79.4%
Total Percentage				57.7%

Source: Processed from S.P.S.S. 25. application

Wald test

Wald test (test the significance of individual parameters) to see how significant the influence of each independent variable is on the dependent variable. In logistic regression, this test is carried out by taking into account the value of the odds ratio shown by Exp(B), which is the magnitude of the possibility of changes in the dependent variable caused by the independent variable.

Based on the logistic regression test results, the simultaneous regression equation is as follows.

$$ln\left(\frac{FFR}{1-FFR}\right) = 0,578 + 1,634FS - 0,313EP - 5,355FT + 0,477IM - 0,170CIA - 0,255CAP + \varepsilon$$

Table 16. Logistic Regression Result (Variable In Equation)

Variable	Prediction	B	Sig.	Exp(B)	Decision	Conclusion
FS	+	1,634	*0,025	5,123	Ho rejected	take effect
EP	+	-0,313	0,493	0,731	Ho accepted	no effect
F.T.	-	-5,355	*0,000	0,005	H0 rejected	take effect
EM	-	0,477	*0,022	1,611	H accepted	no effect
CIA	+	-0,170	0,500	0,844	H0 accepted	no effect
CAP	+	-0,255	0,434	0,775	Ho accepted	no effect
Constant	+	0,578	0,146	1,783	-	-
	Ket. (*) Sig. < 5%: Significant					

Source: Processed from S.P.S.S. 25. application

Table 16 shows the logistic regression results of the fraud diamond model. Based on the test results, the model is simultaneously declared to have a significant effect on fraud in the financial statements, with an estimate of being able to explain 4.6% of the occurrence factors. This figure is not absolute and is only an estimate. This study uses a significance level of 5% ($\alpha=0.05$). Therefore, if the p-value (sig.) < 0.05, the variable is significant, so H0 is rejected, and Ha is accepted. On the other hand, if the p-value (sig.) > 0.05, the variable is insignificant, so H0 is accepted, and Ha is rejected. Information for H0 and Ha in this study is as follows.
H0: Elements in fraud diamond measured by variables have no effect to cheating in financial statements

Ha: As measured by variables, elements in the fraud diamond affect financial statements.

Financial-Stability

The significance value of the F.S. variable, which represents financial stability, is 0.025, and the variable coefficient value (B) of 1.634, so it can be concluded that the pressure element in the fraud diamond is measured by financial *stability's* significantly positive effect on fraud in the financial statements. So, H01 is rejected, and Ha1 is accepted. The results of the study confirm the results of agency theory which explains the differences in the interests of management as agents and owners of capital as principals, which trigger agency problems and asymmetric information. Pressure caused by pressure within the company to present positive asset growth so that the company's finances look stable and

show good financial performance or financial stability can be used as an indicator of fraud resulting in misrepresentation of financial statements. This finding is supported by Supri et al. (2018), who also found a positive effect on financial statement fraud after including the financial stability variable.

External Pressure

The E.P. variable's significance value represents *external pressure* of 0.493. This significance value is more significant than (0.05), meaning that H02 is accepted and Ha2 is rejected. In other words, the pressure element in the fraud diamond, measured by external pressure, is proven not to affect fraud in the financial statements. The size of the number in the leverage ratio that represents external pressure does not affect management to commit fraud. The company may be able to pay its debts so that the ratio of debt to total assets is small, and this ratio is not a measure of pressure on management(Pardosi, 2015). According to Laras (2011), quoted in Hanifa & (Laksito, 2015), creditors may have considerations other than the value of leverage in providing loans, such as the level of trust or good relations with creditors. Another factor causing the low leverage value is that companies choose other ways to increase capital, for example, by issuing shares rather than making new loans which increases the company's burden to pay them off (Prajanto, 2012, quoted inHanifa & Laksito, 2015)

Financial Targets

The significance value of the F.T. variable, which represents financial targets, is 0.000, and the variable coefficient value (B) of -5.355 is negative. This significance value is smaller than the value of (0.05), so it can be concluded that H03 is rejected and Ha3 is accepted. The negative coefficient shows a negative relationship between the pressure element in the fraud diamond measured by financial targets and the fraud in the financial statements. In other words, it can

be concluded that the pressure element in the fraud diamond, as measured by financial targets, has a negative effect on fraud in the financial statements. Financial targets are measured through the ratios commonly used in measuring the profit after tax generated by the company, namely the ROA ratio. To achieve financial targets, management will carefully manage the company's financial performance to decrease the possibility of fraud in the financial statements. A small ROA value will encourage companies to commit fraud. This is in line with the results of Person's research(1995, quoted in Fimanaya & Syafruddin, 2014), which explains that companies with profitability as measured by a low ROA ratio tend to record excessive income or under-expenses. This study confirms the results of the studySkousen et al. (2008), which proves that financial targets are risk factors that become a pressure for companies and encourage companies to commit fraud.

Effective Monitoring

The significance value of the E.M. variable, which represents effective monitoring, is 0.022. Furthermore, it can be seen that the value of the variable coefficient (B) of 0.477 is positive, which indicates a positive relationship between the opportunity element in the fraud diamond as measured by effective monitoring. The significance value of the E.M. variable is smaller than the value of (0.05). However, the direction of the coefficient of the E.M. variable is contrary to the hypothesis, so it can be concluded that there is no influence of the opportunity element in the fraud diamond on fraud in the financial statements as measured by effective monitoring. Thus, H04 is accepted, and Ha4 is rejected. Effective monitoring is measured through audit quality by the Big Four and non-Big Four K.A.P.s. This measure was chosen based on the assumption that Big Four K.A.P.s tend to commit less fraud than non-Big Four K.A.P.s. Public demands to maintain market share, public trust, and

reputation are the reasons behind the Big Four K.A.P.'s seriousness in carrying out audits to protect the public (Riyanti et al., 2019).

The intended public protection is the provision of opinions on financial statements that are not misleading and do not deceive investors(Cahyonowati & Pramaharjan, 2015). The absence of influence on audit quality on fraud can be caused by the same role between Big Four and non-Big Four K.A.P.s in carrying out their duties to find errors and irregularities that cause misstatements in financial statements (Hanifa & Laksito, 2015). Kaminski et al. (2004) argue that the errors found by the auditors can be corrected and do not appear in the published financial statements, so the origin of the auditors from both Big Four and non-Big Four K.A.P.s has no effect.

The quality of the auditors of the Big Four K.A.P.s is also considered not necessarily better than the non-Big Four K.A.P.s because the quality in question may only be perceived quality (market assessed), so it does not reflect the actual quality (Bestari et al., 2012 quoted in Setiawan & Lestari, 2014). A positive relationship between audit quality and fraud in financial statements can be caused by good audit quality that can detect manipulations carried out by the company(Setiawan & Lestari, 2014). K.A.P. Big Four provide quality auditors who can provide good results on the restatement of financial statements(Bloomfield & Shackman, 2008). Auditors with good quality can also detect fraud and express their opinions in independent auditor reports (Palmrose, 1988, cited in Darmawan & Saragih, 2017).

Change in Auditor
The significance value of the C.I.A. variable, which represents the change in auditor, is 0.500. This significance value is greater than the value of (0.05), so it can be concluded that H05 is accepted and Ha5 is rejected. In other words, the rationalization element in the fraud diamond, as measured

by the change in auditor, proved not to affect fraud in the financial statements. This study measures rationalization by the presence or absence of an independent auditor replacement.

The ineffectiveness of auditor replacement can be caused by government regulations that companies must follow, namely Minister of Finance Regulation (P.M.K.) Number 17/PMK.01/2008 concerning Public Accountant Services, which explains the rules regarding the period of providing general audit services on financial statements of an entity. (Tiffani & Marfuah, 2015). This is because rationalization is very closely related to individual characteristics, so quantitatively is quite challenging to measure rationalization. In their research, Skousen et al. (2008) also reveal that they have not found a suitable proxy to measure rationalization.

This result is in line with research in Indonesia that uses auditor replacement to measure other rationalizations, such as research byFimanaya and Syafruddin (2014), Manurung and Hardika (2015), Tiffani and Marfuah (2015), Sunardi and Amin (2018), Surjaatmaja (2018), Adnovaldi and Wibowo (2019), Handoko and Selly (2020), and Sari and Nugroho (2020). In Turkey, research by Ozcelik (2020) proves the influence of *rationalization* as measured by auditor replacement.

Capability
The significance value of the C.A.P. variable representing capability is 0.434. This significance value is more significant than (0.05), so H06 is accepted, and Ha6 is rejected. In other words, the capability element in the fraud diamond, as measured by a capability, is proven not to affect fraud in the financial statements. Capability represented by the C.E.O.'s or C.F.O.'s financial education background cannot be used to detect misrepresentations in financial statements. This is because the C.E.O. or C.F.O. is required to have the

ability or work experience regardless of educational background. Ability and understanding of finance can be supported by work experience that can make someone a finance expert (Surjaatmaja, 2018)so that every C.E.O. or C.F.O. is indeed required to know the field of finance, even though they do not have a formal educational background in finance.

Schuchter and Levi (2015) state that capability is only a supporting element that helps explain the three main factors in the fraud triangle so that it does not directly affect fraud. Surjaatmaja (2018) proves that capability moderates the effects of pressure and rationalization, meaning that capability is a factor that strengthens the direct relationship between the fraud triangle and fraud in financial statements. Having a C.E.O. or C.F.O. with a financial education background does not indicate that this ability is used to commit fraud. This is because public companies must comply with corporate governance guidelines by the Circular Letter of the Financial Services Authority (S.E.O.J.K.) No. 32/S.E.O.J.K.04/2015 concerning Guidelines for the Governance of Public Companies. In the attachment to the letter,

CONCLUSION

This study was conducted to determine the effect of the fraud diamond, which consists of elements of pressure, opportunity, rationalization, and capability on fraud in financial statements. The objects observed were manufacturing sector companies listed on the Indonesia Stock Exchange from 2015 to 2019. After purposive sampling, 103 companies were selected. The number of observed data is 515 annual reports. The analysis carried out has resulted in several conclusions regarding the variables studied. The element in the fraud diamond that is proven to affect fraud in the financial statements is the element of pressure measured through financial stability and financial targets. The pressure element in the fraud diamond, as measured by financial stability, has a

positive effect on fraud in the financial statements, while the pressure element in the fraud diamond measured through financial targets has a negative effect on fraud in the financial statements. So, financial stability and financial targets representing the pressure element in the fraud diamond can indicate a dangerous sign of misrepresentation of financial statements. The pressure element in the fraud diamond is measured by external pressure. The opportunity element in the fraud diamond is measured by effective monitoring, the change in auditor measures the rationalization element in the fraud diamond, and the capability element in the fraud diamond, as measured by the capability auditor, has no effect on fraud in the financial statements so that it cannot be used to detect financial statement misrepresentations. Suggestions for researchers who will conduct further research include the following.

1. The independent variables selected to be investigated in further research should be adjusted to the character of the industry that is the object of research in order to provide more relevant results. Examples of variables that can be selected refer to research by Hribar et al. (2014): unexpected audit fees, earnings management, and income smoothing.

2. In further research, stock prices can measure the financial targets variable. Management success can generally be measured by looking at the stock price as an indicator. High stock prices will benefit investors and improve the company's image, making it easier for companies to obtain capital from outside the company. The high share price then becomes the financial target set by the board of directors and puts pressure on management to achieve the expected profit.

3. Measurement of financial stability, external pressure, and financial targets use total assets so that further researchers can examine the correlation

between these variables more deeply to assess the relationship between these variables.

4. Measuring audit quality with quantitative methods is quite challenging to measure effective monitoring. Further researchers can consider qualitative research to measure the effectiveness of supervision.

5. Research that uses the rationalization variable with proxy for auditor replacement should determine whether the auditor replacement is not caused by the company implementing P.M.K. 17/PMK.01/2008. This can be done by selecting a company that replaces auditors and obtains a non-qualified opinion on the previous year's financial statements as the research sample.

6. A more extended research period or year does not necessarily produce better data than a shorter research period. Further researchers are expected to consider the observed period or year with inconsistent ratio properties over time so that it cannot describe the actual situation.

Research Limitations

Identifying companies involved in fraudulent financial statements is one of the limitations of this study. The selection of companies identified as committing fraud by the O.J.K. or legally proven to have committed fraud resulted in a limited number of samples. Fraud that is never found cannot be sampled or available for research. Fraud discovered by the auditor or the auditing K.A.P. can also be corrected by the company and is generally not disclosed to the public. Therefore, this study tries to use the P-Score model by Pustylnick to identify indications of fraud in financial statements.

The second limitation of this study is that statistically, there is not much difference in the ratio of financial statements with indications of fraud and financial statements without indications of fraud.

This is because the financial ratios measured to detect financial statement misrepresentations were inconsistent over a certain period. Specific financial ratios can predict fraudulent financial statements over three years but may give different results when the study period is four years. Financial ratios are empirically proven unable to detect fraud in financial statements.

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