

Are the Model of Fraud Triangle Elements Sufficient enough to Prevent Fraud? Evidence in North Sumatra Province

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Abstract-Fraud triangle is the three element that cause fraud. Pressure, opportunity and rationalization are dimensions of fraud triangle. This study aims to investigate the effect of fraud triangle element and fraud. Data are collected from the responses of the questionnaires distributed to executive of the Government of North Sumatra Province. Data analyzed using multiple regressions. This study found that the fraud triangle element did not affect the incident of fraud. An interesting finding was made that the fraud triangle elements are not enough to prevent fraud in North Sumatra Province. This study implies that there are other factors needed to prevent fraud in North Sumatra Province, such as integrity.

Keywords-Pressure, Opportunity, Rationalization, Fraud

I. INTRODUCTION

Fraud is a latent hazard that threatens the world [1]. Fraud will have an impact on profitability, industry, consumer surplus, economic growth and social welfare [2]. Scandals involving large organizations in the world such as Satyam, Enron, Target, Olympus and others are examples of fraud cases in the world that have an impact on the destruction of financial markets and the economy in the world [2]. [3]ACFE explains that if organizations in the world lose 5% of their annual income, the total loss due to fraud activities is almost US \$ 4 trillion with the calculation of the gross world product amount of US \$ 76.9 trillion.

Fraud in Indonesia has also become a virus and a serious threat [4]. Indonesia is the country with the most fraud in Asia Pacific after China [5]. Fraud activities are still entrenched in Indonesia, even though various programs and actions have been taken to resolve them [6]. The fraudulent activity even involved state administrators such as ministers, governors and regents [7]. Indonesia Corruption Watch (ICW) documented fraud in Indonesia which increased to 576 cases and 1298 suspects in the 2017 period compared to 2016 with 482 cases and 1,101 suspects. Some fraud cases in Indonesia include corruption in homestead athletes, bribery of steam power plant projects and others.

Most frauds in Indonesia are in the regional government [7] and the Budget Transparency Forum (FITRA) notes that North Sumatra is the province with the

highest levels of corruption in Indonesia in the 2013 [8]. In 2017, North Sumatra was included as the top three provinces with the most cases of fraud after the East Java and West Java Provinces [7]. Some fraud cases in North Sumatra are mass corruption involving the Governor and members of the Regional People's Legislative Assembly regarding grants and social assistance, the Approval of Accountability Reports and for ratification of the Regional Budget Revenues and Expenditures (RAPBD), medical devices, education funds and others [9]. The Corruption Eradication Commission (KPK) also noted that North Sumatra was included in the province with the State Civil Apparatus (PNS) most involved in fraud activities [10].

Factors that can cause fraud need to be understood to prevent and reduce fraud practices. Several studies have been conducted to identify why these fraud perpetrators act the way they do. Dellaportas [11] and Kassem [12] found that factors that contribute to fraud can be found in the Fraud Triangle Theory. Cressey identified three conditions that generally led to fraudulent activities in the organization, namely opportunities, pressure and rationalization [13]. This theory is also supported by research by [14] who found that fraud triangle elements influence the occurrence of fraud.

This study aims to evaluate the effect of fraud triangle elements which consist of pressure, opportunity and rationalization of the occurrence of fraud activities in the Government of North Sumatra Province. Therefore, the question in this study is: "Is the fraud triangle element sufficient enough to prevent and reduce fraud in North Sumatra Province?" This question is quite interesting to prove and will have implications for the policies and programs of the parties authorized in eradicating fraud in Indonesia, especially in the Government of North Sumatra province.

II. LITERATURE REVIEW

The fraud triangle is generally used by sociologists and psychologists to account crime in organizations. Cressey interviewed more than 120 white-collar imprisoned embezzlers, called "trust violators", in special interview rooms in various US prisons and in prisoners' workplaces in prisons [15]. He documented the element of triangle fraud to

be more likely to commit financial crimes, so it is not just a financial incentive. Cressey found the most common characteristics in white-collar crime. Cressey's data is an empirical basis for fraud triangles that began in 1950 and peaked in 1953. Cressey establishes three elements that cause white-collar crime called the fraud triangle theory. According to this theory, pressure, opportunity and rationalization are predictors of behavior fraud.

A. Pressure

Pressure is an element that is not visible and is a problem that cannot be separated. Therefore, auditors will find it difficult to observe employees working under pressure because they do not want to share problems, such as gambling addiction, alcoholism or pressure from family and friends [13]. The motivation for fraud perpetrators to commit fraud is the existence of financial pressures and a luxurious lifestyle[16]. A study conducted by Umar, Sitorus, Surya, Dauki and Suyanti also found that pressure affects dysfunctional behavior and motivates negative actions[17].

Zou, Zhang, Yang, Su found that pressure contributed positively to the occurrence of fraud[18]. The study also found that CEOs and CFOs with relatively lower fees tended to commit to fraud. Some auditors do not carry out sufficient testing under budget and time pressure, thereby reducing audit quality and their ability to detect fraud[19]. Pressure can come from the individual himself, internal and external strength of CFO that will trigger to manipulate financial performance[20].

H1: Pressure has a positive effect on fraud

B. Opportunity

Opportunities are observable elements because opportunities are related to internal controls within the organization that can be observed by auditors[13]. Opportunities refer to the belief that fraudsters can commit fraud without being caught because of internal weaknesses of control such as lack of supervision or separation of duties and that their potential that can effectively commit crimes. Lack of understanding of fraud caused motivation to commit fraud[16]. Fraud will be more efficient and effective against the internal control mechanism and compliance with regulations[21].

The survey conducted by ACFE (2018) states that the lack of internal control is the main factor that causes fraud[3]. The study conducted by Long also stated that a strong internal control system would reduce fraud or make it difficult for a financial crime or fraud[22]. The existence of a whistleblower policy will reduce non-compliance with policies and procedures[23]. Stakeholders rely heavily on external audit as an internal indicator of control to monitor the integrity of financial reporting quality by reducing earnings management.

H2: Opportunity has a positive effect on fraud

C. Rationalization

Rationalization is a moral explanation that convinces fraudsters that their illegal behavior is justified and that they believe that it is true, such as: "I only borrow funds", "everyone does it" and "the leader deceives me financially. Rationalization is an unobservable element because the auditor cannot observe the fraud perpetrator's mind[13]. Rationalization is the third component of the fraud triangle which is the most difficult component to measure because it is related to one's behavior and character [24].

The practice of fraud has caused management to assume that fraud is something that is usually done[11]. Rationalization occurs when fraud perpetrators justify their behavior before or after committing fraud [13]. Minimizing or negating rationalization is an effort and fraud prevention strategy[25]. Fraud perpetrators generally recognize that their actions are dishonest, but rationalize their actions, because of contextual factors[26]. Another form of rationalization is that they do not show empathy for their victims and assume that this is a revenge due to feeling injustice[27].

H3: Rationalization has a positive effect on fraud

III. METHODOLOGY

This research was carried out in all the Regional Government Offices of North Sumatra Province. Respondents of this research are North Sumatra Provincial Service executives who have financial knowledge and have the authority to use the budget, namely Head of Service, Office Secretary, and Head of Division in each of the North Sumatra Provincial Service. Data collection techniques in this study using a questionnaire developed from research [28]. The party who was given the questionnaire was the executive of the Service in the Government of North Sumatra Province which amounted to 189 people. Data analysis will be done by multiple regressions.

IV. RESULT AND DISCUSSION

The questionnaires returned in this study amounted to 79 copies of all that were distributed. All returned questionnaires were used as the unit of analysis in this study. Based on the data obtained, the validity and reliability tests were conducted and it was found that all items of questions to measure the triangle of fraud and fraud were valid and reliable. The data obtained in this study are also normally distributed, there is no multicollinearity between independent variables in the regression model and heteroscedasticity does not occur.

A. Result

Regression analysis was conducted to identify the relationship of the linear fraud triangle element and fraud. Based on table 1 multiple regression analysis, it was found that fraud triangle elements together did not affect fraud, where the *p value* was not significant at 5 percent (0.163). Thus, the results of this study indicate that there is no linear

relationship between the independent variable and the dependent variable. The first objective of this study was to examine the influence of the first element of the fraud triangle, namely pressure on fraud. H1 proposes that there is a positive influence between pressure and fraud. Based on table II, the coefficient for pressure is 0.184, $t = 1.918$, $p = 0.059$. Because of the $p \text{ value} > 0.05$, the pressure does not affect fraud. The results of this study are not in line with Dellaportas[11] and Hanim[14], who found that pressure has a positive effect on fraud.

The purpose of these two studies is to examine the effect of the second element of the fraud triangle, namely the opportunity to fraud. H2 proposes that there is a positive influence between opportunity and fraud. Based on table II, the coefficient for opportunity is -0.197, $t = -1.756$, $p = 0.083$. Because of the $p \text{ value} > 0.05$, the opportunity does not affect fraud. The results of this study are not in line with Dellaportas[11] and Hanim[14], who found that opportunity has a positive effect on the occurrence of fraud. The purpose of these three studies is to examine the influence of the third element of the fraud triangle, namely rationalization of fraud. H3 proposes that there is a positive influence between rationalization and fraud. Based on table II, the coefficient for rationalization is -0.037, $t = -0.300$, $p = 0.765$. Because of the $p \text{ value} > 0.05$, rationalization has no effect on fraud. The results of this study are not in line with Dellaportas[11] and Hanim[14], who found that rationalization had a positive effect on the occurrence of fraud.

TABLE I. MODEL SUMMARY

Model	R	R ²	Adjusted R ²	F	Sig
1	0.256 ^a	0.066 ^a	0.028 ^a	1,756	0,163

Notes: ^aPredictors: (constant), pressure, opportunity, rationalization; ^bVariable: Fraud

TABLE II. REGRESSIONRESULT

Variables	Coefficients	Standard error	t	p-value
(Constant)	11.223	4.021	2.791	0.007
Pressure	0.181	0.096	1.918	0.059
Opportunity	-0.197	0.112	-1.756	0.083
Rationalization	-0.030	0.100	-0.300	0.756

Notes: ^aDependen variable: fraud

B. Discussion

This study has three objectives, namely to identify the influence of the fraud triangle element, which consists of pressure, opportunity and rationalization against the occurrence of fraud. The findings of this study indicate that pressure, opportunity and rationalization have no effect on fraud. The findings of this study do not support the hypothesis, where pressure does not affect fraud. The results of this study are not in line with Dellaportas[11] and Hanim[14], who found that pressure has a positive effect on fraud. This study shows that fraud triangle elements are not sufficient enough to prevent and reduce fraud in the Government of North Sumatra Province. The high or low pressure inside and outside the work environment, the weak or strong internal control system and the existence or absence of rationalization within the organization cannot be

used as a reference in preventing fraud. This is an interesting finding, that there is another factor that is very important in reducing the occurrence of fraud in North Sumatra Province, namely integrity. The character of integrity is one of the important factors in eradicating fraud[14]. This integrity encompasses the integrity of the Indonesian government leadership in law enforcement and fraud detectors, such as the Corruption Eradication Commission (KPK), Prosecutors' Office, police, the Supreme Audit Agency (BPK), the Financial and Development Supervisory Agency (BPKP) and other institutions. If the institutions in Indonesia, especially law enforcement institutions, are increasingly brave and strong in eradicating fraud, then it will increasingly create a deterrent effect for fraud perpetrators, especially the Government of North Sumatra Province.

V. CONCLUSION

This study aims to examine the effect of triangle fraud elements, which consist of pressure, opportunity and rationalization of fraud. This study found that fraud triangle elements did not affect fraud. This shows that there are other factors that play an important role in reducing and preventing fraud, including the character of integrity, such as integrity in law enforcement. The result of this study implies that policy makers strengthen the integrity of leaders and employees in government and other organizations. There are several limitations to this study. The first limitation of this research is the existence of personal bias. This study uses a questionnaire, so there is a possibility that respondents in answering questions are not in accordance with the truth. Both of these studies were carried out in the Governments of North Sumatra Province and Medan City, so that they could not be generalized to other blood governments in Indonesia.

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