

## Does Bank Governance Reduce Financial Statement Fraud? The Moderating Role of Operational Risk

Ety Saraswati<sup>1\*</sup>, Iin Agustina<sup>2</sup>

<sup>1</sup>Department of Management, Faculty of Economics and Business,  
Islamic University of Malang, Indonesia

<sup>2</sup>Department of Public Administration, School of Administrative Science Bandung,  
Bandung, Indonesia

\*Corresponding Author: [etysaraswati@unisma.ac.id](mailto:etysaraswati@unisma.ac.id)

### Abstract

The complexity generally triggers the opportunity of fraud in operation experienced, so that it can potentially be a serious threat which has a significant loss impact for the company. This study focuses on the indications of financial statement fraud committed by commercial banks in Indonesia. The purpose of this study is to examine whether the implementation of good corporate governance can reduce fraudulent financial statements activity in banks, using the moderating role of operational risk. The population determined is all commercial banks listed on the IDX for 2016 to 2020. All 25 banks that met the specified criteria were used as research samples. The data analysis technique used the Moderated Regression Analysis (MRA) method analyzed with SPSS Software. The research findings reveal no significant relationship between Bank governance and financial statement fraud directly. However, operational risk is shown to have a moderating role in the relationship between Bank governance and financial statement fraud. In addition, operational risk also has a function as a predictor concerning fraud. Overall findings of this study are exciting because the interaction between corporate governance and operational risk can influence the company's decisions on the possibility of fraudulent financial statement activities. The benefits of this research are expected to provide input for bank management in assessing the level of corporate governance implementation and response plans for financial statement fraud actions that have a significant impact on high operational risk costs. In addition, it can provide information for regulators in supervising and evaluating regulations related to anti-fraud strategies set in commercial banks and for investors to ensure the security of their investments to increase investor confidence in banks. Finally, it suggested that further research reconsider the concept and size of the study and add new concepts to provide more determinant factors that affect fraudulent financial statements in companies.

**Keywords** : Bank Governance; Operational Risk; Financial Statement Fraud;  
Banking Sector

**JEL Classification** : G2, G3, G4\*

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## 1. INTRODUCTION

Fraud has been recognized as a global phenomenon that has occurred epidemically since the great civilizations (Biegelman & Bartow, 2012; Cascarino, 2013), which is considered a problem for companies, regardless of any size or sector region or country in which the company operates. The complexity generally triggers the opportunity of fraud in operation experienced by the company. It can potentially be a serious threat that has a significant loss impact on the company. Therefore, businesses are concerned about the increasing number of fraud cases in recent years. The results of a review by The Economics of Fraud (2016) revealed that indications of an increase in fraud occurred in about 59% of companies in the Asia Pacific in the next five years, and most of them are carried out in countries with fast economic growth rates, such as Indonesia. In 2014, the Association of Certified Fraud Examiners (ACFE) analyzed about 1388 cases of fraud committed by companies in nearly 100 countries. One-fifth of these fraud cases have caused more than \$1 million in losses. But in 2020, ACFE (2020b) have developed their survey and found around 2,504 cases from 125 countries, causing a total loss of more than \$3.6 billion. Of all the fraud cases detected, the company estimated a loss of 5% to 6% of the company's total annual revenue (ACFE, 2014, 2020b).

The Association of Certified Fraud Examiners (ACFE) states that the primary types of occupational fraud consist of Asset Misappropriation (M.A.), Fraudulent Statements (F.S.), and corruption. These three are considered the most detrimental fraud, where the respective percentages are MA (86%), corruption (43%), and F.S. (10%). Although financial statement fraud has the fewest cases, on the contrary, it has the highest losses with an average of \$954,000, followed by the corruption of \$200,000 and M.A. of \$100,000 (ACFE, 2020b). Specifically, results of the 2019 Indonesia fraud survey (ACFE, 2020a) showed the percentage of fraudulent financial statements was 9.2%, after corruption (69.9%) and Misappropriation of Assets (20.9%), which is seen from the level of authority of the fraud perpetrator, owner or executive-driven schemes have over three times velocity than an employee or manager-driven schemes (ACFE, 2020b). This highlights how the higher positions can damage the company than then lower and potentially escalate much more rapidly when carried out by three or more perpetrators than by just one or two perpetrators.

Based on cases by country in the Asia-Pacific region, the level of fraud index in Indonesia is quite high, which is the fourth highest after Australia, China, and Hong Kong (ACFE, 2020b). Furthermore, in the industrial sector, most fraud perpetrators are found in banking and financial services (ACFE, 2020a, 2020b). This aligns with Iminza et al. (2015), who argues that fraud is more high-handed in banking than in other industries. As data published by the Financial Services Authority (OJK) that there were 57 banks indicated to commit fraud in 2017 and 36 banks in 2018 to the third quarter (Meliana & Hartono, 2019), and cases of financial statement fraud in the banking sector were the second largest (21%) after credit case (56%). The statistical results indicate that many banks still commit and experience financial crimes. However, there is no clear explanation of what motivations, rationalizations, types of fraud, and red bank flags indicate fraud.

This study focuses on the indications of financial statement fraud committed by commercial banks in Indonesia. Based on the 'fraud triangle' model proposed by Cressey (1953), three elements that encourage fraudulent behavior are pressure, opportunity, and rationalization. And in its development, then (Wolfe & Hermanson, 2004) proposed a 'fraud diamond', which includes four elements of fraud, by adding one element of capability from

the three elements previously proposed by Cressey. Although previous studies that examined fraud used the fraud triangle model approach (Abayomi, 2016; Ardiyani & Utaminingsih, 2015; Iqbal & Murtanto, 2016), several other studies have used the fraud diamond model (Achmad & Pamungkas, 2018; Rengganis et al., 2019; Sihombing & Rahardjo, 2014). The difference results on the two models can mainly be seen from the measurement of the fraud score, which uses a more comprehensive calculation by considering all possible aspects. In the fraud diamond model, the element of capability is added with considerations and assumptions that fraud will not occur in a company without the person having the ability; even though there are opportunities that can open the way for fraud, the organization must still have the ability to see things as an opportunity to take advantage of fraud. Thus, this study uses the fraud diamond model in analyzing the potential for fraud in the banking sector, because although the other three elements are present (or are owned by individuals/groups/organizations), not all of them have the capacity or confidence, or intention to commit fraud. This statement is reinforced by Pardosi's (2015) findings, which reveal that capability has a significant positive effect on fraudulent financial reporting. With strict regulations in the financial sector, most banking organizations certainly have a fairly good system for identifying risks, especially in detecting opportunities for individuals or groups that have the potential to commit fraud against the organization.

The number of fraud cases that occurred in the banking sector indicated a form of company failure, thus creating doubts in the minds of stakeholders regarding the credibility and reliability of the company's financial statements (Uadiale, 2012; Uwuigbe et al., 2019). In the context of financial statement fraud, Meliana & Hartono (2019) revealed that most of the banks indicated to commit fraud have made changes to unreasonable financial statement accounts such as assets that are too large or expenses that are too small. The basic motive for committing fraud is generally due to poor company performance, thus encouraging management to commit fraudulent financial reporting (Listyawati, 2016). However, either pressure for higher profits and rising share prices or pressure to expropriate assets (for the benefit of the controlling shareholder and the manager's personal business interests) encourage top managers to engage in or approve of fraudulent activity as a means to fulfill this objective (Chen et al., 2006 in Shi et al., 2017). Thus, financial statements that contain elements of fraud have an impact on decreasing the financial information integrity and become an invalid information source to be used as a basis for analysis in decision making by various parties, such as investors, creditors, employees, auditors, and competitors (Ansar, 2011)

Determinants of fraud include economic and non-economic aspects (Ahmad et al., 2021). One of the identified variables that can influence fraud is operational risk in the economic literature. Bank for International Settlement (BCBS, 2003) states that internal and external fraud activities are classified into bank operational risks. Business operational risks associated with this fraudulent act tend to cause losses to the company, where the estimated losses due to operational risk will be allocated as ongoing fixed costs and will be managed through internal control, while unexpected losses must be covered through capital allocation (Jorion, 2003). The complexity of business in the banking industry has increased operational risk, especially for banks required to comply with strict regulations (Chernobai et al., 2021). Thus, the costs arising from fraud in the banking system can be assessed in terms of capital allocation to cover unexpected losses (Urbina & Guillen, 2014). Empirically, (Ahmad et al., 2021) in the previous studies found a significant relationship between business operational risk and fraud.

Furthermore, corporate fraud is also a classic manifestation of agency problems and weak corporate governance (Yang et al., 2017). Dechow et al. (1996) in (Mahesarani & Chariri (2016) stated that the tendency for fraud to be carried out by companies with backgrounds dominated by insiders and most likely did not have an audit committee. The weakness of the control is a factor that causes fraud to occur (ACFE, 2020a). Although the organization has developed the anti-fraud system or method, there are still things that will weaken the anti-fraud system in its implementation. Two factors were identified: the absence of exemplary from the leadership, where most of them ignored the existing system, making it possible to imitate their subordinates/employees. Second, there is a lack of strong internal control as a medium of control in an organization, so the possibility of fraud will be wide open. These two factors contributed to the weak organizational control system, with an increase in the percentage of each factor of 24.3% and 18% (ACFE, 2020a).

In many recent incidents or cases of corporate misconduct, the failure of the corporate governance structure as an effective controlling or monitoring tool has been highlighted, especially in preventing fraudulent financial reporting. In other words, an effective corporate governance structure has a positive impact in reducing such incidents. Delegation of tasks from the principal to the agent makes the principal unable to supervise the manager's performance as a whole, thus creating a condition of information asymmetry that can lead to fraud. Therefore, good corporate governance is used to reduce agency problems between principals and agents (Ritonga, 2014). Effective corporate governance is also expected to reduce the incidence of fraudulent financial statements, although the development of corporate governance does not always guarantee the end of fraud (Biegelman & Bartow, 2012; Yang et al., 2017). This is relevant to (Ghafoor et al., 2018) and (Septriani & Handayani (2018), who documented that ineffective monitoring has a negative effect on financial statement fraud.

Some previous studies provided substantial evidence of the significant effect of corporate governance on financial statement fraud (Anichebe et al., 2019; Habib & Jiang, 2015; Razali & Arshad, 2014; Uadiale, 2012; Uwuigbe et al., 2019), as well as external monitoring (i.e., auditors, regulators, securities market requirements) which was found to have a significant role in corporate financial fraud (Apriliana & Agustina, 2017; Shi et al., 2017; Yang et al., 2017). While corporate governance mechanisms have also recently been found to be ineffective enough to provide adequate control over fraudulent financial reporting, especially for the characteristics of independent directors, audit committees, supervisory boards (Mahesarani & Chariri, 2016; Yang et al., 2017), board size (Anichebe et al., 2019; Huyghebaert & Wang, 2012), and internal audit (Sorunke, 2016).

Furthermore, the relationship between corporate governance and bank risk has also been explained by (Neifar & Jarboui, 2018), while (Salhi & Boujelbene, 2012) examined the relationship between internal governance mechanisms and risk-taking in the banking industry and have found that smaller board sizes help reduce risk-taking. Furthermore, Husnin et al. (2016) showed that companies with higher risk need to improve their corporate governance by hiring a high-quality auditor.

Most of the previous studies examined the components of corporate governance separately and focused on aspects such as the composition and characteristics of the board, ownership structure, audit committees, quality of internal control, and external auditors (Anichebe et al., 2019; Mahesarani & Chariri, 2016; Rigolini et al., 2012; Sorunke, 2016; Yang et al., 2017). However, only a few previous studies have used measurement parameters comprehensively by integrating all aspects of corporate governance. Based on these

considerations, the determination of the corporate governance variable in this study is based on the rating (composite) value of the corporate governance implementation as a result of the Bank's self-assessment. In addition, it has not been found in previous studies that use the moderating role of operational risk in examining the impact of good corporate governance on financial statement fraud. Hence, this study takes the first attempt to investigate the moderating effect of operational risk on the relationship between corporate governance and financial statement fraud in the banking sector in Indonesia.

## **2. HYPOTHESES DEVELOPMENT**

### **Corporate Governance and Financial Statement Fraud**

Incidents of financial fraud are known to be on the rise and have become a major feature in a number of financial scandals in recent years (Bunget, 2009). Financial statement fraud is an illegal act because it can mislead users of financial statements (Lokanan & Sharma, 2018). Despite the fact, the costs incurred by fraud cases are very difficult to estimate, not only because not all fraud cases are found, but also because not all fraud cases are reported, so different efforts are needed to predict fraud (Alleyne & Howard, 2005; Farrell & Franco, 1999; Seetharaman et al., 2004). The report of (ACFE 2020a, 2020b) documented that the banking industry has the highest level of financial statement fraud, where fraud cases mainly occur in developing countries such as ASEAN countries. This condition seems contradictory considering that banking is a tightly regulated company, so the level of supervision provided is also high (Vishnani et al., 2019). In this case, it is stated that opportunity is a space that managers can use to carry out financial statement fraud (Wu & Wang, 2018).

Financial statement fraud schemes can be referred to as earning management, where the value of profit recognition is not following the financial statements, so it has an impact on unreliable financial statements and has the potential to cause investors to make wrong decisions (Kurniawansyah, 2018). In the banking context, this earnings management activity is contained in the LLP (Loan loss provision) component as a material and subjective component that makes it easier for managers to commit financial statement fraud (Mcnicholas & Stubben, 2018). In addition, financial stability is also an essential element in banking to identify fraudulent activities. (Hidayatullah & Praptoyo, 2018) Prove that when banks are unable to achieve a minimum capital adequacy ratio of 8%, it can trigger managers to commit financial statement fraud.

Based on the above, The Capital Market Management Agency (BPPM) in several countries stated that implementing corporate governance in public companies has succeeded in preventing fraudulent practices on financial statements (Sutoyo & John, 2005). Corporate governance has a significant relationship with fraud (Chen et al., 2006 in Shi et al., 2017), because corporate governance is a tool to ensure that directors and managers (insiders) can act in the best way for the benefit of outside investors, creditors or shareholders (Jackson et al., 2009). Here, corporate governance is needed to prevent and deter managers from committing fraud in financial reporting. Poor corporate governance can lead to fraud and show weaknesses in the control and monitoring system run by the company (Zam et al., 2014). Thus, when a company's corporate governance is weak or does not have effective controls, then there is a tendency for top management to fail to prevent fraud or commit financial violations themselves (Lou & Wang, 2009). Therefore, the quality

of corporate governance needs to be improved so that managers do not deviate from stakeholders.

Empirically, Burton et al. (2014); Ege (2014); Nindito (2018); Uwuigbe et al. (2019); Yang et al. (2017) have found that weak corporate governance can increase the occurrence of fraud. Then, (Desai, 2015; Gupta & Gupta, 2015; Habib & Jiang, 2015) have found that a strong corporate governance mechanism can weaken three fraud factors, namely opportunity, pressure, and rationalization, thereby reducing the occurrence of fraud. Furthermore, an opportunity is a space that managers can use to carry out financial statement fraud (Wu & Wang, 2018). Ghafoor et al. (2018) and Septriani & Handayani (2018) was also found that ineffective monitoring has a negative effect on financial statement fraud.

Furthermore, this study wants to investigate the role of Bank governance on the possibility of financial statement fraud. Given that the corporate governance function is applied to solve agency problems, especially in controlling the behavior of corporate management (Dey, 2008; Mehmood et al., 2019; Sehwat et al., 2019), it is assumed that the level of good corporate governance should be able to encourage better behavior of all actors, which allows them not to take advantage from the existence of information asymmetry and not getting personal benefits at the expense of the interests of other parties, especially those who do not have direct authority or control in the company. Conversely, suppose there is an opportunity for managers or controlling shareholders to engage in opportunistic behavior that leads to fraud. In that case, the fraud rate will be higher when the corporate governance system is weak. Based on the description above, the first hypothesis proposed in this study is:

Hypothesis 1. Bank governance has a significant relationship with financial statement fraud.

### **Corporate Governance, Operational Risk, and Financial Statement Fraud**

The main causes of bank failure are poor bank management due to being too willing to take risks, lax supervision of fraud, and embezzlement of funds (Hadad et al., 2004). Specifically, Sinkey & Walker (1975) categorize bankers' actions such as fraud, abuse of authority, and banking crimes as hidden actions, while misjudgment of on and off-balance sheet accounts as hidden information. Financial statement fraud is one type of fraud with a fairly large negative impact, including reputational damage, loss of investor confidence, potential fines, and costs of losses borne by the company (Ernst and Young, 2009). In many recent cases of corporate misconduct, the failure of the corporate governance structure as an effective control and monitoring tool has been highlighted as one of the reasons for fraudulent financial reporting. In other words, it can be concluded that an effective corporate governance structure has a positive impact in reducing these incidents. However, previous research has provided mixed evidence (Uadiale, 2012; Uwuigbe et al., 2019).

Although various studies and literature have explained that corporate governance mechanisms are related to financial statement fraud activities, to our knowledge, there are no empirical studies that use other determinants as a basis for consideration in evaluating why companies commit fraudulent actions. This makes sense because several studies have also revealed that good governance does not always guarantee that companies will not commit fraud. Even companies found to have committed fraud are known to have a good corporate governance framework (Mardjono, 2005; Salami et al., 2014). The number of conflicts of interest between managers or company executive bodies makes them dare to

take risks to commit such fraudulent acts, whether because of pressure and demands that must be met or because of their opportunistic intentions. Therefore, this study uses operational risk variables in considering the possibility of fraud activities carried out by the company.

Operational risk in financial services is known as a type of risk that is very difficult to assess and can be very detrimental (Cruz, 2003). Typically, it is considered a risk of loss due to failure of internal processes, people, or systems or the occurrence of unexpected external events (BCBS, 2011). Fraud activities carried out by companies can increase operational risk costs, both in the form of fines and sanctions that must be borne if the company is detected as committing fraud. Operational risk in Banks is the risk of direct or indirect loss resulting from the failure of internal processes, people, or systems, and or from external events that burden the impact of bank operations (BCBS, 2011). Moosa & Li (2013) and Ruspantini & Sordi (2011) revealed that internal fraud cases are operational events with large impacts and consequences for banks, often due to deliberate embezzlement of bank assets theft, illegal trading, or legal evasion by the Bank's internal parties. In addition, mismarking a bank's position (i.e., the Bank is not financially sound as reported) is also classified as internal fraud. While external fraud often occurs through system security breaches, including theft of information or hacking. This all implies that corporate fraud is an act that causes operational risk, in addition to the failure of management, control systems, and inadequate operational procedures. Hence, one of the strategic actions taken by the company to overcome criminal acts in the banking sector is risk assessment. The Basel II Accord requires Banks to calculate regulatory capital allocated as potential losses arising from operational risk events. In this case, the Bank considers the possibility of risk of loss in the form of expected losses in its operational activities.

Empirically, Salhi & Boujelbene (2012) have examined the relationship between internal governance mechanisms and risk-taking in the banking industry, and Ahmad et al. (2021) found a significant relationship between business operational risk and fraud. Iminza et al. (2015) have found a positive but weak relationship between governance and operational risk of fraud. Meanwhile, Jaffar (2009) has found that the level of fraud risk has a positive moderating effect on the relationship between the external auditor's ability to assess fraud risk and the external auditor's ability to detect the possibility of fraud. Based on the description above, the second hypothesis proposed in this study is:

Hypothesis 2. The Operational risk can moderate the relationship of Bank governance on financial statement fraud.

Based on theoretical, empirical studies, and research objectives, the conceptual framework built in this study is shown in Figure 1.

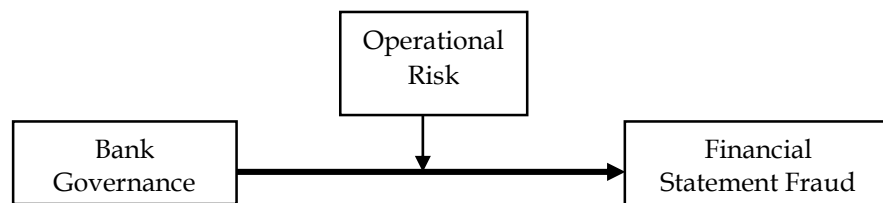


Figure 1. Research Framework

### 3. METHOD, DATA, AND ANALYSIS

#### Sample and Data Source

This study uses a quantitative approach with an explanatory research model. The population in this study are all Commercial Banks listed on the IDX from 2016 to 2020. This study uses the financial sector, especially Commercial Banks chosen as the population because the Bank, one of Indonesia's financial sector industries, has carried out its operations based on the provisions and monitoring under OJK (or Bank Indonesia) directly. Hence, it is more rigid than other companies in the non-financial sector. The total population of commercial banks that meet the specified criteria is 25. The sampling method used in this study is a saturated (census) technique so that the entire population will then be used as a research sample.

The source of data used is secondary data, namely the annual report issued by Commercial Banks. The data includes rating data of GCG implementation taken from the corporate governance report, quantitative calculation data of operational risk taken from risk management reports, and financial report fraud data taken from the Bank's financial statements.

#### Measurement and Data Analysis

The measurement of each variable is explained as follows: first, the Bank governance as an independent variable is based on the rating (composite) value of the implementation of corporate governance, as a result of the Bank's self-assessment, which includes 11 (eleven) aspects or components of corporate governance based on B.I. Circular Letter No. 15/15/DPNP/2013. Second, the operational risk is a moderating variable, using the Operational Value at Risk proxy. However, for banks in Indonesia, especially commercial banks, the calculation of bank operational risk still uses the Basic Indicator Approach (BIA) method, which is the simplest method compared to the other two methods, namely the standardized approach and the advanced measurement approach. By considering the accuracy of the research results, the determination of the operational risk variable in this study is based on the value of the operational risk capital burden as a result of the Bank's risk self-assessment, which refers to the provisions of Bank Indonesia, the Basel II Accord, and the Bank's internal regulations. Lastly, financial statement fraud as the dependent variable was detected through the fraud score model, which is a development of the fraud triangle model that identifies four factors: pressure, opportunity, rationalization, and capability. Measurement with the fraud score model (F-score) is considered more comprehensive and representative because it includes all elements of accrual quality and financial performance from the Bank's financial statements. The formula of the F-Score model can be calculated as follows equation 1.

$$F\text{-Score} = \text{Accrual Quality} + \text{Financial Performance} \quad (1)$$

Accrual quality is proxied by RSST accrual (Richardson et al., 2004), which is obtained in equation 2 to 6.

$$RSST \text{ accrual} = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{\text{Average Total Assets}} \quad (2)$$

$$WC \text{ (Working Capital)} = (\text{Current Assets} - \text{Cash and Short-term Investments}) - (\text{Current Liabilities} - \text{Debt in Current Liabilities}) \quad (3)$$



$$NCO \text{ (Non-Current Operating Accrual)} = (\text{Total Assets} - \text{Current Assets} - \text{Investment and Advances}) - (\text{Total Liabilities} - \text{Current Liabilities} - \text{Long Term Debt}) \quad (4)$$

$$FIN \text{ (Financial Accrual)} = \text{Total Investment} - (\text{Long Term Debt} + \text{Debt in Current Liabilities} + \text{Preferred Stock}) \quad (5)$$

$$ATS \text{ (Average Total Assets)} = (\text{Beginning Total Assets} + \text{End Total Assets}) / 2 \quad (6)$$

Meanwhile, financial performance is proxied by changes in accounts receivable, inventory accounts, cash sales accounts, and EBIT, as in equations 7 to 10.

$$\text{Change in receivables} = \Delta \text{ Receivables} / \text{Average Total Assets} \quad (7)$$

$$\text{Change in inventories} = \Delta \text{ Inventories} / \text{Average Total Assets} \quad (8)$$

$$\text{Change in cash sales} = (\Delta \text{ Sales} / \text{Sales} (t)) - (\Delta \text{ Receivables} / \text{Receivables} (t)) \quad (9)$$

$$\text{Change in earning} = (\text{Earnings} (t) / \text{Average Total Assets} (t)) - (\text{Earnings} (t-1) / \text{Average Total Assets} (t-1)) \quad (10)$$

The data analysis technique was carried out using the Moderated Regression Analysis (MRA) method. This analytical approach maintains sample integrity and provides a basis for controlling the influence of moderator variables (Ghozali, 2016). The analysis process uses SPSS software, with equations 11 to 13.

$$\text{Fraud} = a + \beta_1 \text{ BG} + e \quad (11)$$

$$\text{Fraud} = a + \beta_1 \text{ BG} + \beta_2 \text{ Risk} + e \quad (12)$$

$$\text{Fraud} = a + \beta_1 \text{ BG} + \beta_2 \text{ Risk} + \beta_3 \text{ BG} * \text{Risk} + e \quad (13)$$

Fraud = financial statement fraud, BG = Bank governance, Risk = operational risk,  $\alpha$  = constant,  $\beta$  = the path coefficient, and e = error.

#### 4. RESULTS

Based on the data analysis conducted through SPSS version 25, the summary of the descriptive analysis result is shown in Table 1.

Table 1. Descriptive Analysis Test Result

Variable	N	Minimum	Maximum	Mean	Std. Deviation (SD)	Coefficient of Variation (CV)
BG	100	3.00	5.00	3.97	0.41	0.103
Risk	100	43569.00	15005319.00	2178315.34	3507158.70	1.610
Fraud	100	-10.89	4.37	0.11	1.16	10.545

Based on the output of descriptive analysis, it is known that the mean value of the Bank governance variable is 3.97, meaning that on average, the implementation of corporate governance practices in banks is good, of the results of each Bank's self-assessment. In contrast, the coefficient of variation (CV), representing the distribution of the data relative to the mean, is 0.103, indicating that the corporate governance data has

low variation or the data tends to be homogeneous. Most of the Banks have a good rating in their corporate governance implementation, so it can be concluded that most commercial banks in Indonesia have met the requirements of good corporate governance in accordance with the provisions of OJK (or B.I.).

The mean value of the operational risk variable is 2,178,315.34, which means that, on average commercial banks in Indonesia have a capital expense from the operational risk of Rp. 2,178,315.34 of the Bank's average total gross income for the last three years. On the other hand, the variation of data on this variable is quite high, which indicates that the level of bank operational risk tends to be heterogeneous, with a coefficient of variation (CV) of 1.610 from the relative distribution of data. Thus, it can be concluded that the level of operational risk in the sample of commercial banks is quite diverse, and most of the banks that have a high level of operational risk are banks with large asset capitalization.

The mean score of the financial statement fraud variable shows a value of 0.11. On average, commercial banks in Indonesia commit financial statement fraud by 11% of the published data. On the contrary, this data variation is the highest compared to other variables, and this shows that the financial statement fraud data is very heterogeneous, with a coefficient of variation (CV) of 10.545 from the relative data distribution. Thus, it can be said that the majority of commercial banks in Indonesia exhibit fraudulent activities in the financial statements they publish. Although the percentage of fraud rate is quite low and even in most banks it is gradually decreasing, some other banks still show an increase.

Furthermore, as we said that this study uses the Moderated Regression Analysis (MRA) model, with the criterion variable (dependent) of financial statement fraud, predictor variable (independent) of Bank governance, and moderating variable of operational risk, the summary results of the regression analysis output using the MRA method can be shown in Tables 2, 3, and 4.

**Table 2.** MRA Test Result (Model I)

<b>Independent Variable</b>	<b>Beta Coefficients</b>	<b>t-Statistics</b>	<b>Probability Value (Sig.)</b>	<b>Remark</b>
Constant	11.078	1.822	-	-
Bank Governance	-5.501	-1.283	0.204	Not Significant
F-Value	1.646		0.204	Not Significant
Adjusted R Square	0.010			-

**Table 3.** MRA Test Result (Model II)

<b>Independent Variable</b>	<b>Beta Coefficients</b>	<b>t-Statistics</b>	<b>Probability Value (Sig.)</b>	<b>Remark</b>
Constant	7.728	1.329	-	-
Bank Governance	-1.708	-0.405	0.687	Not Significant
Operational Risk	-0.360	-3.017	0.004	Significant
F-Value	5.486		0.007	Significant
Adjusted R Square	0.128			-

Table 4. MRA Test Result (Model III)

Independent Variable	Beta Coefficients	t-Statistics	Probability Value (Sig.)	Remark
Constant	17.389	2.462	-	-
Bank Governance	-3.733	-0.894	0.375	Not Significant
Operational Risk	-2.823	-2.576	0.013	Significant
Bank Governance x Operational Risk	0.151	2.260	0.028	Significant
F-Value	5.614		0.002	Significant
Adjusted R Square	0.185			-

Based on the results of the output summary for each regression equation model, it can be explained as follows:

1. Fraud = 11.078 - 5.501 BG  
t-value (1.822) (-1.283)
2. Fraud = 7.728 - 1.708 BG - 0.360 Risk  
t-value (1.329) (-0.405) (-3.017)
3. Fraud = 17.389 - 3.733 BG - 2.823 Risk + 0.151 BG\*Risk  
t-value (2.462) (-0.894) (-2.576) (2.260)

The results of the MRA analysis show that there is no significant relationship between Bank governance and financial statement fraud (Table 2), so hypothesis 1 is rejected. In addition, by comparing the three regression outputs above, the information is obtained that  $\beta_2 \neq 0$  (significant) and  $\beta_3 \neq 0$  (also significant). It can be concluded that the operational risk variable is a quasi-moderator variable (Sharma et al., 1981 in Ghazali, 2016), so hypothesis 2 is accepted. Referring to the criteria set by Ghazali (2016), if the operational risk is the quasi moderator (quadrant 3), it means that operational risk is related to fraudulent financial statements and Bank governance and interacting with Bank governance. Thus, operational risk is both a predictor and a moderator in the relationship between Bank governance and financial statement fraud.

## 5. DISCUSSION

The implementation of Bank governance is not proven to correlate with financial statement fraud in the object of Commercial Banks in Indonesia. It can be interpreted that the performance of corporate governance cannot directly reduce the activity of financial statement fraud in the Bank concerned. The findings of this study confirmed the research results of Huyghebaert & Wang (2012); Mahesarani & Chariri (2016); Sorunke (2016); Yang et al. (2017), who documented that corporate governance mechanisms are not effective enough to provide adequate control over fraudulent financial reporting. On the other hand, the findings of this study are not supported the previous research conducted by (Anichebe et al., 2019; Burton et al., 2014; Desai, 2015; Gupta & Gupta, 2015; Habib & Jiang, 2015; Uwuigbe et al., 2019) who revealed a direct link between corporate governance and fraud.

In the company context, where there is a separation between the owner as of the principal and the manager as the agent who runs the company, agency problems will arise because each party will always try to maximize their respective utility functions. Fraud is associated with agency problems that occur within a company. This condition usually occurs in the presentation of the company's financial statements. However, general accounting principles provide flexibility for management to determine the methods and estimates that can be used. This is what causes discretion to direct management to take opportunistic actions. This discretion is also generally used by management for personal interests that only benefit them even though it will impact the company's losses to put the company in a dangerous condition.

However, the findings reveal that Bank governance structures and mechanisms cannot directly encourage management's opportunistic behavior for fraudulent financial statements. This is because management also considers the magnitude of the operational risk burden that the company must bear due to the irregularities or fraud. Arora & Agarwal (2009) explained that operational risk involves disturbances in internal control, personnel, and corporate governance that led to errors, fraud, and performance failures, thus impacting financial losses. Operational risk both from internal and external fraud can even impact increasing other banking risks such as liquidity risk, credit risk, and market risk as a result of irrational stakeholder behavior (Sturm, 2013). Therefore, it makes sense that the implementation of good corporate governance aims to manage significant risks to meet the company's business objectives, both through safeguarding company assets and by increasing shareholder investment value in the long term (Effendi, 2009).

Furthermore, the findings of this study also confirmed the research of Ahmad et al. (2021), who revealed the significant relationship between operational risk and fraud. As is well known, the central function of a bank is inherently exposed to operational risks, where each of these risks can influence stakeholder perceptions. This perception is mainly related to the trust, credibility, and performance of the Bank, which then leads to the Bank's reputation (Vardy, 2015). However, operational risk has a large part in bank risk exposure; Ferreira & Dickason-Koekemoer (2019) stated that, unlike other financial risks, operational risk is a pure risk and has the opportunity to only cause financial losses for the Bank. Lewis (2004) also argued that operational risk could reduce the company's value dramatically and even suddenly so that the impact of this operational risk causes internal losses and external losses for the company (Cruz, 2003). When companies fail to mitigate and manage operational risks effectively, it impacts the collapse of banks and other financial institutions (Ferreira, 2015). Thus, operational risk management aims to reduce the possibility of wrong systems and procedures, establish a mechanism that allows for potential internal fraud detection, and carry out procedures to manage the consequences of such operational risks. To minimize the risks, banks must implement operational risk management so that the overall possibility risks can be detected, controlled, and overcome. As we know, the impact of operational risk could negatively impact the company's reputation, which in turn will affect the collection of customer funds and bank profits.

The Financial Services Authority (OJK), the institution that regulates and supervises financial service activities in the banking sector, has also issued regulations related to fraud prevention in the banking industry. This regulation has actually been in effect since 2011 in the form of a Bank Indonesia Circular Letter Number 13/28/DPNP and was later refined in POJK No.39/POJK.03/2019 concerning the implementation of an anti-fraud strategy for commercial banks. This regulation was made with the basic considerations that a bank may

be exposed to operational risk in every business activity, one of which comes from fraud. The high number of fraud cases in the banking sector has prompted OJK to conduct an evaluation and tighten banking regulations so that the space for fraud to occur is narrower. What must be underlined is that although regulations related to anti-fraud strategies have been established to minimize the occurrence of fraud through strengthening the internal control system, fraud will still occur if there is involvement from the Bank's internal parties. Therefore, it is necessary to evaluate bank governance regularly, in addition to the task of independent supervision. The implementation of corporate governance is ideally aimed at reducing all irregularities committed by the Bank. On the one hand, the Bank implements good corporate governance practices to maximize the firm value, but on the other hand, to avoid or prevent fraud. Hence, banks must implement an anti-fraud strategy that includes prevention, detection, investigation, sanctions, and monitoring, which will become the object of OJK supervision.

Overall findings of this study are exciting because the interaction between corporate governance and operational risk can influence the company's decisions on the possibility of fraudulent financial statement activities. As it is known, corporate governance is one of the mechanisms that can be used as a company control tool to anticipate the impact of business risks, especially operational risks. In implementing good corporate governance, the Bank generally implements risk management through identifying, evaluating, and managing risks so that Bank can undertake mitigation efforts for all forms of potential risks that may arise. When the Bank calculates or considers the cost of operational risk that likely occurs from their strategic policies, this will prevent the Bank from committing fraudulent or irregular actions. In other words, if banks commit fraudulent actions on their financial statements, which is mainly done to increase the company value, then the impact of these actions will actually increase the posting of higher costs. In this case, the impact of the fraudulent activity will result in very large fines or penalties, and it will affect the Bank's operational activities caused by disruption of liquidity at the Bank.

## **6. CONCLUSION, LIMITATIONS, AND SUGGESTIONS**

### **Conclusion**

This study empirically examines implementing Bank governance on financial statement fraud at commercial banks in Indonesia. The data were analyzed using the Moderated Regression Analysis (MRA) method to see the results of the direct and indirect relationship of corporate governance on financial statement fraud through the moderating role of operational risk.

Based on the research findings, it is known that Bank governance has an insignificant relationship with financial statement fraud. The implementation of Bank governance cannot directly reduce financial statement fraud. Furthermore, the research findings also showed that operational risk has a moderating role in the relationship of Bank governance on financial statement fraud. In this case, operational risk has a quasi-moderator role, which functions as a predictor and at the same time as a moderator in the relationship between Bank governance and financial statement fraud. On average, the Bank's operational risk capital expense level also shows a relatively high average value.

Finally, the findings of this study provide some information for companies (banks), that it is essential to re-evaluate the implementation of corporate governance in each Bank, especially related to internal control. The detection of fraudulent activity in financial

statements indicates that the company's control process is still weak; therefore, it is necessary to form a special team for supervision of fraudulent actions that may be carried out by management.

#### **Limitation and suggestions**

Despite the fact that the findings of this study have provided some interesting information and insights, they still have some limitations. However, the measurement of Bank governance and operational risk in this study is only based on the results of the Bank's self-assessment published in their annual reports. The assessment component refers to OJK (or B.I.) regulations thus, other measurement models that may use the different components cannot be used to avoid discrepancies between the research results and the real conditions of the Bank. On the other side, the measurement of financial statement fraud in this study is focused on the Dechow model (F-score), so the research results may be different if the measurement of financial statement fraud is carried out using other proxies, such as the Beneish model (M-Score) and modified Jones models.

One substantial limitation is represented by the different characteristics between banking and other sectors. As a result, the generalization of the findings of this study cannot be used for research on other companies (especially the non-financial sector). Based on these limitations, further research is recommended to reconsider the size of the observed concepts and add new concepts to provide more determinant factors that affect fraudulent financial statement activities in companies. In addition, the analytical model in further research can consider market capitalization so that financial statement fraud committed by companies can be categorized based on the market capitalization of each company.

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