

Do Good Corporate Governance and Whistleblowing Systems in Bank Industry Effectively Support Fraud Detection and Prevention?

✉ Andrew Christian Sudjono

Accounting Department, Faculty of Economics
Universitas Katolik Parahyangan, Indonesia

ARTICLE INFORMATION

Article History:

Received September 30, 2022

Revised December 07, 2022

Accepted June 18, 2023

DOI:

[10.21532/apfjournal.v8i1.296](https://doi.org/10.21532/apfjournal.v8i1.296)



This is an open access article under
the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) License

ABSTRACT

Fraud can damage a business organization, and it might threaten the goals and targets achievement. It is very important to implement an effective strategy for detecting and preventing fraud. This research measures how good corporate governance principles, represented by the board of commissioners (BoC), audit committee (AC), internal audit units, and also whistleblowing system support fraud detection and prevention in banking companies. The data is analyzed using SMART-PLS with a total of 8 banks' data for seven years from 2015 to 2021. It is found that good corporate governance executors affect the WBS by 51.3%, while fraud detection is affected both by the good corporate governance mechanism and the whistleblowing system by 37.5%. Both the board of commissioners and audit committee were found to affect the whistleblowing system, while internal audit units don't. In contrast to this, fraud is affected by internal audit units and whistleblowing systems. Both regulators and companies must realize that both the human aspect and technology aspect, each represented by GCG principles and whistleblowing system have an important effect on fraud detection.

Keywords: *Fraud Prevention, Good Corporate Governance, Whistleblowing System, Internal Audit, Audit Committee, Board of Commissioners, External Audit.*

How to Cite:

Sudjono, A. C. (2023). Do Good Corporate Governance and Whistleblowing Systems in Bank Industry Effectively Support Fraud Detection and Prevention?. *Asia Pacific Fraud Journal*, 8(1), 155-168. <http://doi.org/10.21532/apfjournal.v8i1.296>.

✉ Corresponding author :
Email: andrew.cs2504@gmail.com

Association of Certified Fraud Examiners (ACFE)
Indonesia Chapter
Page. 155-168

1. INTRODUCTION

Fraud that occurs in a business entity certainly damages and hinders the achievement of the goals set by the organization. It is a challenge for all parties of the organization in detecting and preventing fraud from being overcome and avoided from occurring. However, handling fraud in an organization requires high commitment from all parties and is assisted by an adequate mechanism or system in supporting fraud prevention (Gunasegaran et al., 2018; Rifai & Mardijuwono, 2020).

This is also evidenced by a survey conducted by ACFE related to fraud cases that have occurred to date, where it is stated that each company has suffered a loss of 5% of the income it receives due to fraud that occurs in the company. In addition, it was also explained that fraud detection is mostly carried out by employees, who provide information related to fraud that occurs in the company (ACFE, 2022). Therefore, how important it is for every organization to develop an adequate supervisory framework accompanied by a system mechanism that supports the reporting of fraud (Cross, 2018, 2019).

Prevention of fraud within the scope of a corporation is very important to support their financial performance. The process of implementing good corporate governance (GCG) principles is an effort that applies a human approach to preventing fraud. The implementation of the principles of good corporate governance certainly places a strict set of supervision in a company (Juhandi et al., 2020), where this is done by the board of commissioners (BoC), the audit committee (AC), and the internal audit unit or IAU (Halbouni et al., 2016). All three have their respective complementary roles in an effective organizational structure in preventing fraud.

Fraud prevention will also be more effective if it is equipped with an adequate system and technology approach, which is characterized by how the company establishes adequate and effective controls. Internal control is one of the

ways used by principals in ensuring that there is no conflict of interest in actions taken by agents. Supervision by the BoC, AC and IAU also still has limitations (Mirinaviciene, 2014), where there are still opportunities where fraud is not detected in the internal audit process (Rashid et al., 2022). This threat can be overcome by enforcing a whistleblowing system. The whistleblowing path opened in an organization allows for close supervision from all parties to prevent fraud from occurring. Companies need to pay attention to aspects of an adequate system for the opening of effective reporting channels.

The regulators have also established several important rules in supporting the prevention of fraud in these two aspects. Otoritas Jasa Keuangan (OJK) has established important rules related to public corporate governance mechanisms in supporting adequate supervision in each company, which is regulated in POJK No. 21 of 2015. In addition, rules regarding the whistleblowing system have also been established, which have been regulated since 2008 by the National Committee for Governance Policy in guidelines related to the Whistleblowing System (WBS). This study intends to explore the contribution of GCG mechanism and violation reporting systems in the prevention and detection of fraud that occurs within the company. This study's samples are chosen from the companies in the financial sector specifically in banking subsectors. This is because the banking sector revealed the frequency of internal fraud within a period of 1 year whose value is classified as material, which is greater than 100 million rupiahs in the annual report it publishes.

This study aims to find and find the influence of corporate governance factors, which are reviewed by the BoC, AC, and IAU on the whistleblowing system implemented in each company and on the frequency of fraud. Previous research (Utami, 2018) also found that both internal audits and whistleblowing systems have a negative influence on the frequency of

frauds in the company. This research also expands the scope of previous studies by looking at how the influence of the BoC, audit committees, and internal audits upon the quality of whistleblowing system disclosures.

2. LITERATURE REVIEW AND HYPOTHESIS

Fraud

Ruin defined fraud as behavior in seeking personal gain, avoiding obligations, and causing harm to other parties (Rashid et al., 2022). Fraudulent behavior is a form of agency problem that arises, in which the agent acts for his benefit, regardless of the goals and targets of the organization as a whole. The existence of *fraud* cannot be avoided completely, and this certainly depends on the policies owned by the company in preventing fraud (Siregar & Surbakti, 2019).

Seeing how fraud can be very detrimental to the company, regulators and also corporate governance parties will certainly take strict action in preventing fraud, actions are known as *fraud prevention*. Fraud prevention can be interpreted as setting a set of values and rules in a company to ensure that the actions taken by all human resources in a company focus on achieving the goals of the company (Hardika et al., 2021).

Whistleblowing System

A whistleblower refers to a person who exposes wrongdoings and fraud that happened within an organization (Smaili & Arroyo, 2022). To report the frauds that occur within a corporation certainly has its challenges for the whistleblower, which needs to be an important concern for every organization in developing a system and culture that supports the whistleblowing system (Dangi et al., 2020; Shonhadji & Maulidi, 2021). The implementation of the whistleblowing system needs to involve all levels of employee positions in the company to be able to make reports, as well as how the regulations of the whistleblowing system execution must cover the entire organization (Rivest, 2018).

This is evidenced by the application of regulations from the Sarbanes-Oxley Act which also regulates how the whistleblowing system is opened anonymously, which will certainly support whistleblowing actions (Sarikhani & Ebrahimi, 2021). In 2016, the National Committee on Governance Policy passed guidelines for the Whistleblowing System (WBS), one of which discussed 16 important components of implementing a WBS. The sixteen components are expected to support the effectiveness of the implementation of the existing reporting channels within the company. Some of them include commitments from the company, goals, and reasons, what cases can be reported, who can report, and much more.

Agency Theory

Jensen & Meckling stated that there is a conflict of interest due to the asymmetry of information in any large-scale business organization, which if left unchecked can trigger the occurrence of problems known as agency problems (Raharjanti, 2018). The conflict of interest occurs as a result of differences of interest between principals and agents (Srikandhi & Suryandari, 2020; Sudjono & Setiawan, 2022). It is a challenge for the principal in ensuring harmony with the goals to be achieved by the agent, which can be done by implementing internal controls, conducting audits, and preparing bonus or incentive programs for the agent (Sudjono & Setiawan, 2022).

The Board of Commissioners, Whistleblowing System, and Fraud Cases

The Board of Commissioners is a supervisory body established by Otoritas Jasa Keuangan (OJK) or Financial Services Authority in Peraturan OJK (Financial Services Authority Regulation) No. 33 of 2014 which regulates the determination of the board of commissioners and CEO in a public company. The BoC's responsibility is to supervise the company's performance and provide direction and consideration to the board of directors, which of course the main focus on achieving the

company's goals. The role of the board of commissioners is very important, where the lack of supervision can increase the threat of fraud (Achmad et al., 2022). The more strict the supervision by board of commissioners being executed, the quality of whistleblowing system and number of fraud reports will increase to detect and prevent frauds.

Previous research (Mulyadianto et al., 2020; Salleh & Othman, 2016) proves that the BoCs' meetings affect fraud prevention and detection. However, in the same research (Salleh & Othman, 2016), it was stated that the BoD size didn't affect fraud prevention. Another research (Agnihotri & Bhattacharya, 2015) proves that one of the board of directors' characteristics, which is the size of independent directors affects the whistleblowing policy disclosure. Based on this, the hypothesis develops as follows.

H1: Board of Commissioners Positively Affects Whistleblowing System

H2: Board of Commissioners Positively Affects Fraud Detection and Prevention

Audit Committee, Whistleblowing System, and Fraud Cases

The audit committee has an important role in analyzing in depth how a company operates, which will then be reported to the board of commissioners, as stipulated in POJK No. 55 of 2015. The audit committee as the implementation of a good corporate governance mechanism and also the internal control system will certainly establish and supervise the implementation of the whistleblowing system in the company (Wardani & Sulhani, 2017). More in-depth and stricter oversight by the audit committee is also expected to prevent fraud. However, fraud is not easily detected, so the audit committee also monitors reports received through the whistleblowing system. Therefore, the audit committee will supervise the development of more effective violation reporting pathways, so that fraud can be further prevented.

The research (Khemakhem et al., 2021; Wardani & Sulhani, 2017) found that the audit committee did not affect either the implementation of the whistleblowing system implemented or fraud prevention within the company. Furthermore, regarding fraud prevention, the research conducted by (Siregar & Surbakti, 2019) found that the audit committee meeting negatively affects the number of fraud cases, where the audit committee's role is very important in preventing internal irregularities in an organization. However, research (Safitri & Rani, 2022) proves that the audit committee does not influence ensuring the integrity of financial statements, which indirectly shows that the audit committee does not affect fraud prevention. This was also stated in a previous study (Abdullah & Said, 2019) which found that the existence of the audit committee doesn't directly prevent fraud.

H3: Audit Committee Positively Affects Whistleblowing System

H4: Audit Committee Positively Affects Fraud Detection and Prevention

Internal Audit, Whistleblowing Systems, and Fraud Cases

Internal audit has the responsibility to monitor and evaluate various activities, with the purpose to assess the effectiveness and efficiency of how the business operates (Drogalas et al., 2017; Mahendra et al., 2021). Compared to the board of commissioners and audit committee, internal audit units may face the real situation that is happening in a company. Therefore, internal audit units will detect any problem or defect in the whistleblowing system that has been implemented in the company. Then, based on the problems or any defects that are detected, internal audit will give some recommendation to improve the quality of whistleblowing system and increase the number of reports in the whistleblowing system. Previous research (Saputra, 2017) showed that the internal audit function negatively affects fraud cases, and research by (Mahendra et al., 2021) also found that

internal audit has a positive effect on fraud prevention.

H5: Internal Audit Positively Affects Whistleblowing System

H6: Internal Audit Positively Affects Fraud Detection and Prevention

Whistleblowing System dan Fraud Prevention

Several previous studies measured the whistleblowing system implemented by companies in Indonesia based on 16 indicators set by the KNKG (Safitri & Rani, 2022; Utami, 2018). Research conducted by (Shonhadji & Maulidi, 2021; Siregar & Surbakti, 2019) found that the violation reporting system implemented by the company has a positive influence on the number of fraud cases that occur in the company and prevents fraud in the presentation of financial statements. This shows that the existence of a whistleblowing system is very important in detecting fraud that occurs in the company. Research from (Maulida & Bayunitri, 2021) also proves that the whistleblowing system effectively supports fraud detection and prevention in Jabar Central Bank. Therefore, the hypothesis is developed as follows.

H7: Whistleblowing System Positively Affects Fraud Detection and Prevention

3. METHODS

This research uses a hypothetico-deductive approach, which is an approach to proving

a hypothesis that has been developed. This study uses quantitative data with the source of the annual report published by the company, by searching the website of each company. The sampling technique used in this study is purposive sampling, where samples are selected based on special criteria set. These criteria along with the number of final samples are, among others, presented in Table 1.

In this study, there were several variables observed, including the board of commissioners, audit committee, internal audit, whistleblowing system, and fraud. The measurement of each variable is presented in the table below.

The data is processed using the SMART-PLS program to study the path of analysis from all the variables. The research figures are shown in Figure 1 below.

4. RESULTS AND DISCUSSION

Statistical Descriptive Analysis

Based on Table 2 above, the size of board commissioners has an average of seven members in banking companies, with a minimum size of five and a maximum number of members of eleven. The meetings' frequency done by the BoC shows the effectiveness of supervision and evaluation which leads to the improvement of the corporation's decision and strategy, which the banking companies have meetings with an average of 27 meetings annually, with the least number

Table 1. Sampling Process

No.	Sampling Criteria	Sample Units
1.	Banking Companies Listed in IDX	46
2.	Companies that do not disclose Internal Fraud in their Annual Report	(13)
3.	Companies who do not have any Internal Fraud between 2015-2021 sequently	(23)
4.	Companies who do not have any files of reports in their Whistleblowing System from 2015 to 2021 sequentially	(2)
	Final Sampling	8
	For a total of 7 years, from 2015 to 2021	x 7
	TOTAL	56

Source: Processed Data

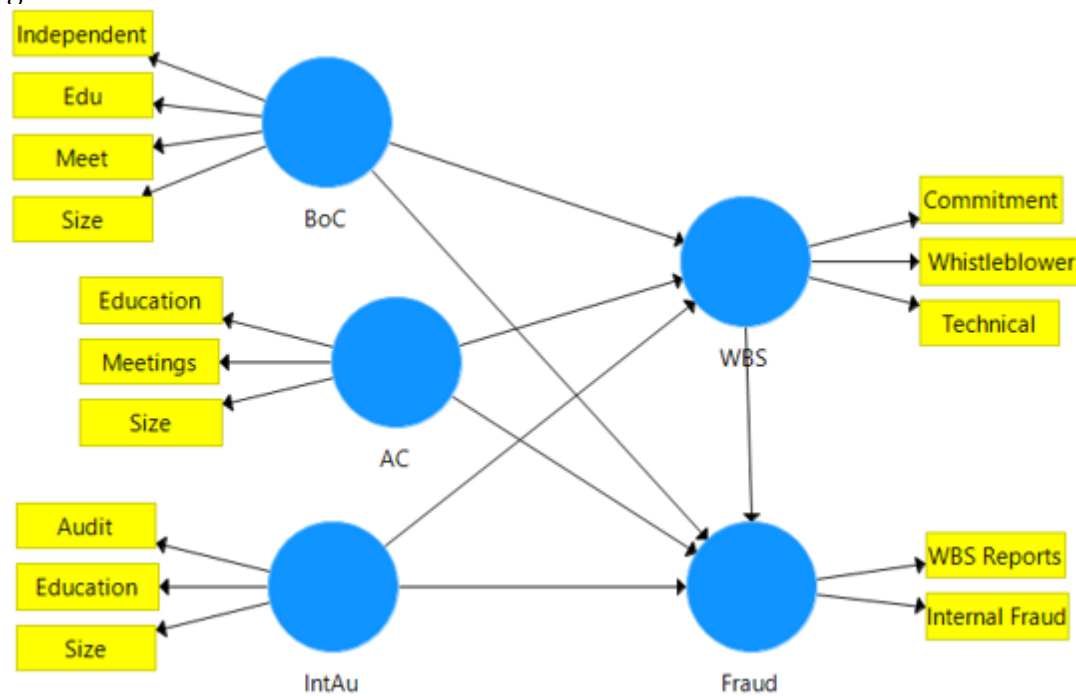
of meetings being five and the largest number of meetings is 62 in a year. Lastly, the number of independent commissioners has the average of 3, with a least number of 2 and the largest consists of 7 members in the company.

Table 2. **Variable Measurement**

No.	Variable	Dimension	Indicator	Scale
1.	Board of Commissioners	Size	The numbers of the board of commissioners	Ratio
		Meetings	The number of meetings done in one year by the BoC	Ratio
		Education	The number of board of commissioners with management/business/accounting education background	Ratio
		Independent	The number of independent BoC	Ratio
2.	Audit Committee	Size	The number of the audit committee members	Ratio
		Meetings	The number of meetings done in one year by the audit committee	Ratio
		Education	The number of audit committee members with business/management/accounting education	Ratio
3.	Internal Audit	Size	The number of the board of commissioners	Ratio
		Audit Activity	The number of audits/activities done by the internal audit units	Ratio
		Education	Whether the internal audit unit leader has an education background in management/business/accounting	Dummy
4.	Whistleblowing System	Commitment	16 Indicators set by KNKG, which in this category are the aspects of commitment declaration disclosure in WBS	Ratio
		Whistle-blower	16 Indicators set by KNKG, which in this category are the aspects of the whistleblower rights	Ratio
		Technical Issues	16 Indicators set by KNKG, which in this category is regarding the technical issues disclosure of the WBS	Ratio
5.	Fraud Cases	WBS Effectiveness	The number of reports in the whistleblowing system disclosed in the annual report	Ratio
		Fraud Cases	The number of fraud cases that happened within one year disclosed in the annual report	Ratio

Source: Processed Data

Figure 1. Research Model



Source: Processed Data

Table 3. Statistical Descriptive Analysis

No.	Variables	Mean	Min	Max	Standard Deviation
1	Size (BoC1)	7.107	5	11	1.611
2	Meetings (BoC2)	26.982	5	62	18.71
3	Independence (BoC3)	3.804	2	7	1.093
6	Size (AC1)	4.482	3	7	1.268
7	Meetings (AC2)	16.393	5	30	7.326
8	Education (AC3)	3.143	0	7	1.187
10	Education (IntAu1)	0.589	0	1	0.492
12	Size (IntAu2)	167.357	1	726	192.214
14	Audit (IntAu3)	151.768	3	755	170.831
17	Technical Issues (WBS1)	3.429	1	5	1.321
18	Commitment (WBS2)	0.643	0	2	0.639
19	Whistleblower (WBS3)	3.054	0	5	1.007
20	Reports (FR1)	44.429	3	134	36.359
21	Fraud Cases (FR2)	20.571	1	121	26.393

Source: Processed Data

The next category is the audit committee's characteristics, which is measured by the size, number of meetings, and educational background. Banking companies have an average of 5 audit committee members, which by the rule according to POJK 55 the minimum size

for each company is 3. The meetings' frequency done by the AC has a mean of a total of 16 meetings in a year, with a minimum number of 5 and a maximum number of 30. Not all audit committees have an educational background in business, management, or accounting. The internal

audit, which is measured by the internal audit division characteristics, shows that the internal audit division has an average size of 167 and 151 audit activities being disclosed in the annual report.

Whistleblowing system indicators use the 16 guides set by KNKG, divided into 3 main categories, technical issues, whistleblowers, and commitment statements. Each indicator disclosed in the annual report is given a score of 1. The result shows companies prioritize the disclosure of technical issues and whistleblowers, with the same average score. On the other hand, commitment statements are rarely disclosed by banking companies in their annual report.

Partial Least Square Analysis

Figure 2 shows each variable's indicators, with its loading factor for each indicator. This also shows how some of the indicators still have very low loading factors, which are categorized as invalid indicators for the variables.

Based on Figure 3 below, all the indicators for the board of commissioners are valid, however, the other variables have several indicators which are invalid, so they are eliminated from the model.

R-Square Test

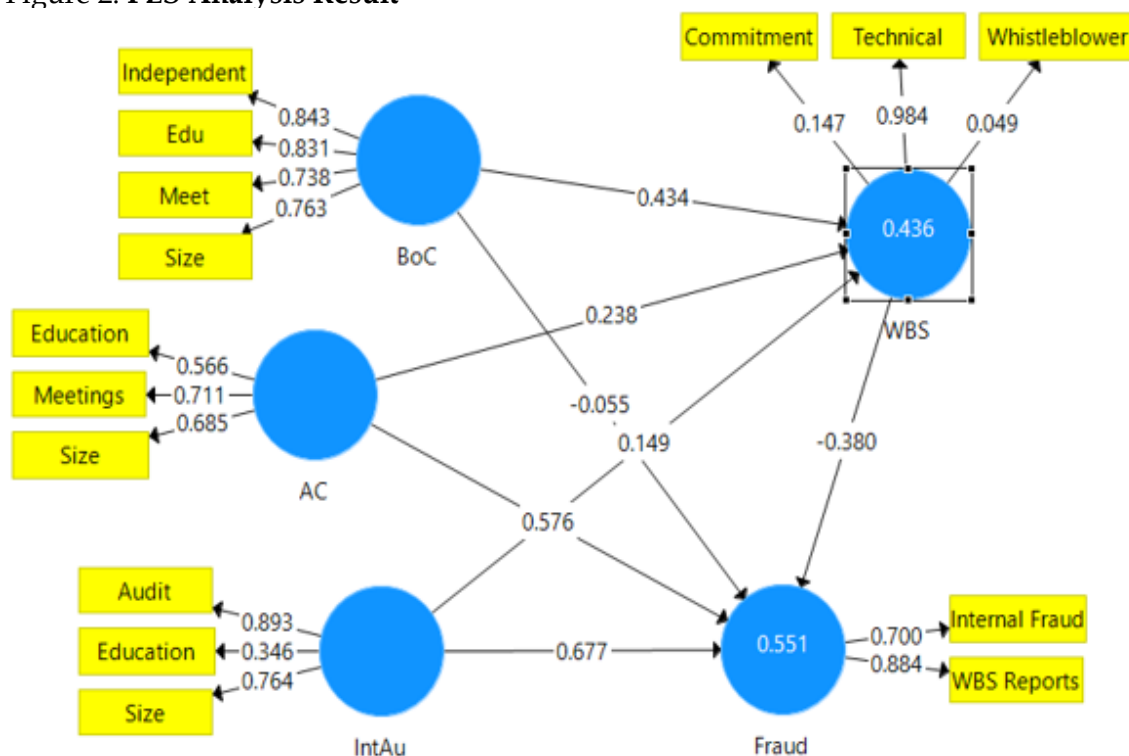
Table 4. R-Square Test Results

	R Square	R Square Adjusted
Fraud	0.421	0.375
WBS	0.539	0.513

Source: Processed Data

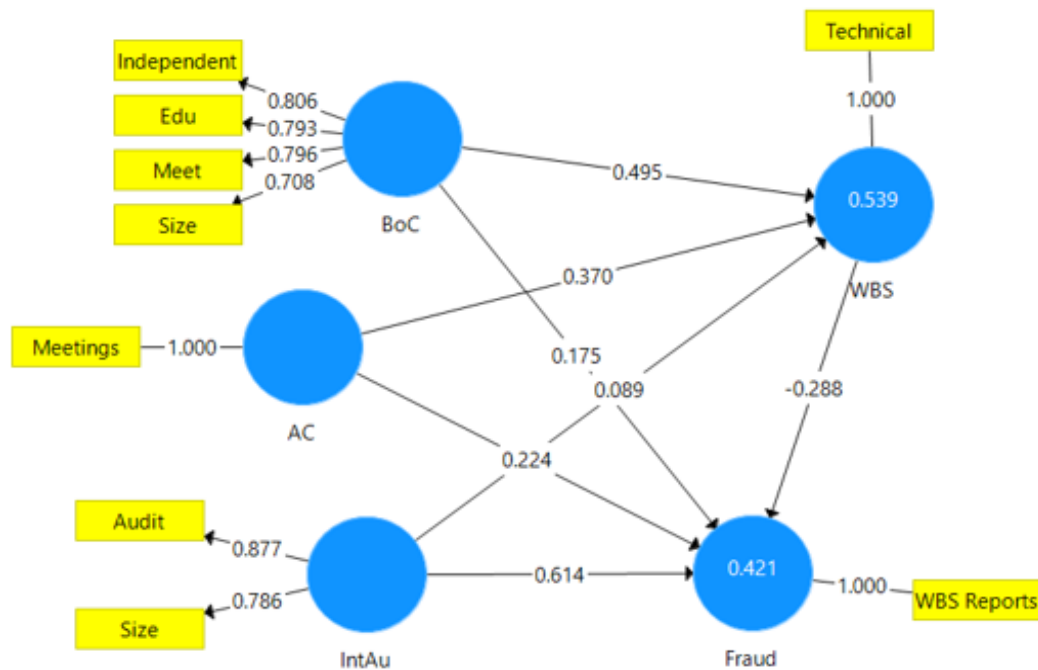
Based on Table 4, all the variables determine fraud, which is measured by the reports filed in the whistleblowing system, by 37,5%. This means that good corporate governance execution by the board of commissioners, audit committee, and internal audit units determines the usefulness of the whistleblowing system. All of them give a medium impact on how employees or stakeholders file the report in the whistleblowing system.

Figure 2. PLS Analysis Result



Source: Processed Data

Figure 3. Final Outer Model Assessment Result



Source: Processed Data

Table 5. Hypothesis Testing Result

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
AC → FD&P	0.224	0.249	0.148	1.510	0.132
AC → WBS	0.370	0.351	0.090	4.088	0.000
BoC → FD&P	0.175	0.176	0.135	1.291	0.197
BoC → WBS	0.495	0.515	0.087	5.686	0.000
IntAu → FD&P	0.614	0.624	0.106	5.768	0.000
IntAu → WBS	0.089	0.079	0.094	0.953	0.341
WBS → FD&P	-0.288	-0.285	0.134	2.145	0.032

*WBS : Whistleblowing sytem

*FD&P : Fraud detection & prevention

Source: Processed Data

In addition, the board of commissioners, audit committee, and internal audit units influence how the whistleblowing system is disclosed in companies' annual reports by 51.3%, especially in the technical issues related to the whistleblowing system. The existence of the three parties is important in increasing the quality of the whistleblowing system.

The hypothesis testing done by t-test can be seen in Table 5 above. H1, H3, and H6 all have p-values greater than 0.05 so all these hypotheses are rejected. The audit committee and board of commissioners

were found to not determine fraud reports using the whistleblowing system. Moreover, whistleblowing system quality is not influenced by internal audit unit characteristics.

However, H2, H4, H5, and H7 all have p-values that are less than 0.05 so all these hypotheses are accepted. This means that the audit committee, board of commissioners, and internal audit units were found to affect the fraud reporting. Lastly, whistleblowing quality is also found to determine how fraud reporting by the whistleblower.

Based on the results, it can be concluded as an equation, as follow:

$$\text{WBS} = 0,370 \text{ AC} + 0,495 \text{ BoC} + 0,089 \text{ IntAu} \\ \text{Fraud Detection \& Prevention} = 0,224 \text{ AC} \\ + 0,175 \text{ BoC} + 0,614 \text{ IntAu} - 0,288 \text{ WBS}$$

DISCUSSION

The Board of Commissioners' Influence upon the Whistleblowing System & Fraud Detection

The board of commissioners is found to be affecting positively the whistleblowing system that is applied in banking companies. This proves how their supervision is very important to improve an effective whistleblowing system that may detect and prevent fraud to happen. Along with guidance and monitoring from the board of commissioners, the quality of whistleblowing system increases, which proves by the positive impact given by the board of commissioners characteristics. POJK 33 mentions that the board of commissioners' responsibility is to give a new perspective and recommendation for directors in improving weaknesses and threats that may arise in the business entity. Therefore, banking companies must evaluate the characteristics of the board of commissioners in their companies.

Contrary to (Mulyadianto et al., 2020), it is found that based on the reports filed in the whistleblowing system, the BoC does not affect fraud prevention. The frequency of the reports in the whistleblowing system is not determined by the board of commissioners. This might be caused by how the whistleblower's intention to file a report is not based on the BoCs' supervision, that they may not be in a significant position to be accessible by the whistleblower. This also implies how the BoC has not encouraged employees or even all the stakeholders to file a report if they detect and find fraud that is happening in the banking environment.

The Audit Committee's Influence upon the Whistleblowing System and Fraud Detection

With the p-values less than 0.05, the audit committee is positively affecting the

whistleblowing system in the banking companies. Therefore, according to what is regulated in POJK 55, audit committee responsible to assess the audit quality within each organization, with one significant parts is the handling of the reports in the whistleblowing system. Continuous evaluation done by the audit committee about the whistleblowing system certainly improves the quality, which may support the whistleblower in filing a report. The positive relationship between the AC characteristics and whistleblowing system proves how important the meetings' frequency done by audit committee in improving the quality of whistleblowing system within the business environment. With more meetings are arranged by the audit committee to discuss and supervise the management, along with the focus on whistleblowing system, the better the disclosure and quality of whistleblowing system being applied within the company.

On contrary with previous research (Wardani & Sulhani, 2017) this research proves that audit committee meetings are effective in supporting and improving the whistleblowing system. The meetings held annually is designed to improve and evaluates the companies' defects and weakness, and one of the strategies to fulfill is with monitoring the whistleblowing system. Each company's audit committee needs to hold meetings whenever needed to improve the whistleblowing system.

On the other hand, audit committee meetings do not influence the reports received in the whistleblowing system, this is shown by how H4 has a p-value that is bigger than 0.05 that it is rejected. Audit committee meetings can not directly improve the reports filed by whistleblowers in the whistleblowing system. Audit committee needs to evaluate on how to encourage fraud reports in whistleblowing system done by all the stakeholders including the employees, which is the most important party to detect and prevent frauds.

The Internal Audit's Influence upon the Whistleblowing System and Fraud Detection

Internal audit units' size and audit activity are found to effectively support fraud detection, with both p-values less than 0.05. On the other hand, internal audit units' size and activity are found to not influence the quality of the whistleblowing system. Therefore H5 is rejected and H6 is accepted. This result agrees with previous studies' results (Mahendra et al., 2021; Saputra, 2017) which found that internal audit units effectively affect fraud detection and prevention.

Internal audit found to influence positively on the number of fraud reports in the whistleblowing system. Moreover, internal audit units' size and audit activities may detect current deficiencies of the whistleblowing system that has been implemented, so it can improve both the quality and quantity, so that employees, and other stakeholders' intention in doing whistleblowing increases. Internal audit units need to actively monitors the quality of whistleblowing system within a company.

The whistleblowing system's management and reports' handling are also part of how important the internal audit unit's role is. By doing audits and being supported by a large number of people, internal audit quality may detect and improve the usefulness of the whistleblowing system.

The Whistleblowing System Quality's Influence upon Fraud Detection and Prevention

The whistleblowing system quality that has been exhibited in the annual reports is found to be affecting the number of reports filed in the whistleblowing system. With a p-value of 0.000, the H7 which states that the whistleblowing system affects fraud detection is accepted. However, on contrary with the previous research's results (Maulida & Bayunitri, 2021; Shonhadji & Maulidi, 2021; Siregar & Surbakti, 2019) which found that the whistleblowing system positively affects fraud detection

and prevention, this research finds that the quality of technical aspect of whistleblowing system negatively affects the number of whistleblowing reports to detect and prevent fraud.

This may be caused by how more complex and detailed the system being applied in filing a report into the whistleblowing system may demotivate the whistleblower intention on reporting the fraud case. In the positive side, this may prevent the reports being filed carelessly by each stakeholders, including the employees. However, fraud prevention and detection also may be threaten by the small number of reports in the whistleblowing system.

An effective whistleblowing system is a platform that supports fraud detection and prevention based on how the system opens for all people within an organization. The effectiveness of a whistleblowing system is measured by the number of reports and the fraud cases that are detected by the whistleblower's report.

5. CONCLUSION

Fraud detection and prevention are very important to help each organization achieve its goals and targets. Therefore, each organization will focus to maintain the monitoring needed in detecting and preventing fraud. Two important aspects to implement and monitor in a company are the GCG's principles and the whistleblowing system. The governance mechanisms represent the "people" or human aspect of preventing fraud, while the whistleblowing system represents the technology to prevent fraud. Based on the research done in banking companies by analyzing the implementation of these two aspects, it is found that the board of commissioners and audit committee affect the whistleblowing system, on the other hand, the internal audit does not influence the whistleblowing system. Fraud detection, measured by the number of reports filed in the whistleblowing system, is affected by the internal audit unit's size and audit activities and also

the whistleblowing system quality. All the GCG mechanism in Indonesia is proven to support the whistleblowing system by 51.3%. In addition, the quality of the whistleblowing system, especially in the technical areas are affected by the BoD, audit committee, internal audit, and also whistleblowing system by 37.5%. Further research may include several other indicators and variables that may analyze fraud detection deeper and also may take a different method by using primary data in studying the factors that affect fraud detection and whistleblowing system.

Appreciation Notes

I would like to thank Ibu Dr. Amelia Setiawan, CISA from Fakultas Ekonomi in Universitas Katolik Parahyangan, Bandung who has provided motivation, supports and guidance in this research data analysis process.

REFERENCES

- Abdullah, W. N., & Said, R. (2019). Audit and risk committee in financial crime prevention. *Journal of Financial Crime*, 26(1), 223–234. <https://doi.org/10.1108/JFC-11-2017-0116>.
- Achmad, T., Ghozali, I., & Pamungkas, I. D. (2022). Hexagon Fraud: Detection of Fraudulent Financial Reporting in State-Owned Enterprises Indonesia. *Economies*, 10(1), 13. <https://doi.org/10.3390/economies10010013>.
- Agnihotri, A., & Bhattacharya, S. (2015). Whistleblowing policy disclosure: evidence from an Indian emerging market. *Corporate Governance*, 15(5), 678–692. <https://doi.org/10.1108/CG-05-2014-0057>.
- Cross, C. (2018). Expectations vs reality: Responding to online fraud across the fraud justice network. *International Journal of Law, Crime and Justice*, 55, 1–12. <https://doi.org/10.1016/j.ijlcj.2018.08.001>.
- Cross, C. (2019). Reflections on the reporting of fraud in Australia. *Policing: An International Journal*, 43(1), 49–61. <https://doi.org/10.1108/PIJPSM-08-2019-0134>.
- Dangi, M. R. M., Nawawi, A., & Salin, A. S. A. P. (2020). Application of COSO framework in whistleblowing activities of public higher-learning institutions. *International Journal of Law and Management*, 62(2), 193–211. <https://doi.org/10.1108/IJLMA-06-2017-0145>.
- Drogalas, G., Pazarskis, M., Anagnostopoulou, E., & Papachristou, A. (2017). The effect of internal audit effectiveness, auditor responsibility and training in fraud detection. *Journal of Accounting and Management Information Systems*, 16(4), 434–454. <https://doi.org/10.24818/jamis.2017.04001>.
- Gunasegaran, M., Basiruddin, R., Abdul Rasid, S. Z., & Mohd Rizal, A. (2018). The case studies of fraud prevention mechanisms in the Malaysian medium enterprises. *Journal of Financial Crime*, 25(4), 1024–1038. <https://doi.org/10.1108/JFC-05-2017-0034>.
- Halbouni, S. S., Obeid, N., & Garbou, A. (2016). Corporate governance and information technology in fraud prevention and detection. *Managerial Auditing Journal*, 31(6/7), 589–628. <https://doi.org/10.1108/MAJ-02-2015-1163>.
- Hardika, A. L., Mar'atus, D., & Lubis, S. (2021). Fraud Prevention Measures at PT. Bank BJB, Bandung City. In *Turkish Journal of Computer and Mathematics Education* (Vol. 12, Issue 9). www.kejati-jabar.go.id.

- Juhandi, N., Zuhri, S., Fahlevi, M., Noviantoro, R., Nur abdi, M., & Setiadi. (2020). Information Technology and Corporate Governance in Fraud Prevention. *E3S Web of Conferences*, 202, 16003. <https://doi.org/10.1051/e3sconf/202020216003>.
- Khemakhem, H., Fontaine, R., Smaili, N., & Zaman, M. (2021). Correction to: Whistleblowing regulations and the role of audit committees: insight from interviews. *Journal of Management and Governance*. <https://doi.org/10.1007/s10997-021-09611-8>.
- Mahendra, K. Y., Erna Trisna Dewi, A. A. A., & Rini, G. A. I. S. (2021). Pengaruh Audit Internal dan Efektivitas Pengendalian Internal Terhadap Pencegahan Kecurangan (Fraud) Pada Bank Bum di Denpasar. *Jurnal Riset Akuntansi Warmadewa*, 2(1), 1-4. <https://doi.org/10.22225/jraw.2.1.2904.1-4>.
- Maulida, W. Y., & Bayunitri, B. I. (2021). The influence of whistleblowing system toward fraud prevention. *International Journal of Financial, Accounting, and Management*, 2(4), 275-294. <https://doi.org/10.35912/ijfam.v2i4.177>.
- Mirinaviciene, S. (2014). INTERNAL CONTROL AND FRAUD PREVENTION: PRIOR RESEARCH ANALYSIS. *Science and Studies of Accounting and Finance: Problems and Perspectives*, 9(1), 173-179. <https://doi.org/10.15544/ssaf.2014.19>.
- Mulyadianto, A., Kirana, D. J., & Wijayanti, A. (2020). Kontribusi Corporate Governance Dalam Mengurangi Kecurangan Laporan Keuangan. *Jurnal Ilmiah Akuntansi Kesatuan*, 8(3), 297-308. <https://doi.org/10.37641/jiakes.v8i3.369>.
- Peltier-Rivest, D. (2018). A model for preventing corruption. *Journal of Financial Crime*, 25(2), 545-561. <https://doi.org/10.1108/JFC-11-2014-0048>.
- Raharjanti, A. I. (2018). Pengaruh Good Corporate Governance terhadap Internal Fraud pada Unit Usaha Syariah Tahun 2017. *Academica Journal of Multidisciplinary Studies*, 2(2).
- Rashid, M. A., Al-Mamun, A., Roudaki, H., & Yasser, Q. R. (2022). An Overview of Corporate Fraud and its Prevention Approach. *AABFJ*, 16(1), 101-118.
- Rifai, M. H., & Mardijuwono, A. W. (2020). Relationship between auditor integrity and organizational commitment to fraud prevention. *Asian Journal of Accounting Research*, 5(2), 315-325. <https://doi.org/10.1108/AJAR-02-2020-0011>.
- Safitri, A. E., & Rani, P. (2022). Peran Komisaris Independen, Komite Audit dan Kualitas Audit Terhadap Integritas Laporan Keuangan Dimoderasi Whistleblowing System. *AkunNas*, 19(1).
- Salleh, S. M., & Othman, R. (2016). Board of Director's Attributes as Deterrence to Corporate Fraud. *Procedia Economics and Finance*, 35, 82-91. [https://doi.org/10.1016/S2212-5671\(16\)00012-5](https://doi.org/10.1016/S2212-5671(16)00012-5).
- Saputra, A. (2017). Pengaruh Sistem Internal, Kontrol, Audit Internal dan Penerapan Good Corporate Governance Terhadap Kecurangan (FRAUD) perbankan (Studi Kasus Pada Bank Syariah Anak Perusahaan BUMN di Medan). *Owner Riset Dan Jurnal Akuntansi*, 1(1), 48-55.

- Sarikhani, M., & Ebrahimi, F. (2021). Whistleblowing by accountants: an integration of the fraud pentagon and the extended theory of planned behavior. *Meditari Accountancy Research*. <https://doi.org/10.1108/MEDAR-10-2020-1047>.
- Shonhadji, N., & Maulidi, A. (2021). The roles of whistleblowing system and fraud awareness as financial statement fraud deterrent. *International Journal of Ethics and Systems*, 37(3), 370-389. <https://doi.org/10.1108/IJOES-09-2020-0140>.
- Siregar, A., & Surbakti, A. S. (2019). Analisis Pengaruh Whistleblowing System Dan Rapat Komite Audit Terhadap Jumlah Kecurangan. *BALANCE: Jurnal Akuntansi, Auditing Dan Keuangan*, 16(1), 41-61. <https://doi.org/10.25170/balance.v16i1.80>.
- Smaili, N., & Arroyo, P. (2022). Triggering changes in corporate governance: before and after external whistleblowing. *Journal of Financial Crime*, 29(3), 1027-1041. <https://doi.org/10.1108/JFC-06-2021-0134>.
- Srikandhi, M. F., & Suryandari, D. (2020). Audit Quality Moderates the Effect of Independent Commissioners, Audit Committee, and Whistleblowing System on the Integrity of Financial Statement. *Accounting Analysis Journal*, 9(3), 186-192. <https://doi.org/10.15294/aaaj.v9i3.41625>.
- Sudjono, A. C., & Setiawan, A. (2022). Pengaruh Ukuran Perusahaan, Umur Perusahaan, Likuiditas, dan Leverage terhadap Audit Report Lag (Studi pada Perusahaan Consumer Goods Terdaftar di BEI Tahun 2019-2020). *Owner : Riset dan Jurnal Akuntansi*, 6(3), 2602-1612. <https://doi.org/10.33395/owner.v6i3.991>.
- Sudjono, A. C., & Setiawan, A. (2022). Apakah Karakteristik Internal Perusahaan Turut Berkontribusi Terhadap Audit Delay Perusahaan Consumer Goods di Indonesia?. *JIAFE: Jurnal Ilmiah Akuntansi Fakultas Ekonomi*, 8(2), 207-220. <http://doi.org/10.34204/jiafe.v8i2.5950>.
- Utami, L. (2019). Pengaruh Audit Internal dan Whistleblowing System terhadap Pengungkapan Kasus Kecurangan (Studi pada Perusahaan Sektor Jasa yang Terdaftar di BEI Periode 2016-2017). *Akurasi : Jurnal Studi Akuntansi Dan Keuangan*, 1(2), 77 - 90. <https://doi.org/10.29303/akurasi.v1i2.6>
- Wardani, C. A., & Sulhani, S. (2017). Analisis Faktor-Faktor Yang Mempengaruhi Penerapan Whistleblowing System Di Indonesia. *Jurnal Aset (Akuntansi Riset)*, 9(1), 29. <https://doi.org/10.17509/jaset.v9i1.5255>.