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Influence of Board Commissioners Diversity and Audit Committee Effectiveness on the Risk of Fraud

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Abstract

This study examines the effect of board of commissioners' diversity and audit committee effectiveness on fraud risk in Indonesian state-owned enterprises (BUMN). Board diversity is measured by gender, age, and educational background, while audit committee effectiveness is proxied by meeting frequency and committee independence. Fraud risk is measured using the Beneish M-Score model. The study uses a sample of 19 BUMN listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period, with data analyzed using multiple regression analysis in SPSS 25. The results show that neither board diversity nor audit committee effectiveness has a significant effect on fraud risk. These findings suggest that fraud risk is influenced by factors beyond the governance characteristics examined in this study. Although limited to listed BUMN and selected corporate governance variables, this study provides empirical evidence that may serve as a reference for future research on the determinants of corporate fraud.

Keywords: ***Board Of Commissioners, Effectiveness Audit Committee, Fraudulent Financial Statements.***

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INTRODUCTION

Financial reports play a crucial role in depicting a company's financial condition and serving as a communication tool between internal and external parties. These reports present information on the company's financial data and operational activities, managing cash flow, credit, and investments, based on the Financial Accounting Standards (SAK) applicable in Indonesia. Furthermore, financial reports also serve to attract new investors by demonstrating the company's potential. The information contained in financial reports is crucial, encouraging management to improve company performance to appear more effective and efficient. Therefore, the financial reports presented must be free from material errors that could increase risk (Siregar dan Mirna, 2024)

The rise in corporate fraud cases has become an increasingly important issue in recent years. Fraud, in the corporate context, encompasses a variety of illegal acts such as financial statement manipulation, asset embezzlement, and fraud that harm the company and its stakeholders. (Suhardi, et all, 2022). Kitab Article 378 of the Criminal Code (KUHP) regulates behavior that leads to fraud, which states that anyone who, with the intent to benefit themselves or another person unlawfully, deceives another party in an illegal manner, can be subject to imprisonment. Intentional acts to deceive or deceive another party, usually carried out to obtain financial gain or avoid loss, are also considered fraud. Fraud in the workplace is a serious problem that can cause significant financial losses and reduce confidence in the integrity of financial markets. (Sulistyawati dan Nugroho, 2024).

Corporate fraud cases have shown an alarming upward trend. According to a 2020 report from the Association of Certified Fraud Examiners (ACFE), fraud losses reached more than $4.5 billion, a 5% increase compared to the previous year. The report also showed that in 2020, organizations worldwide lost 5% of their annual revenue due to fraud, with total losses estimated to reach billions of dollars. This data reflects a significant increase in the number and impact of fraud cases in companies worldwide. In Indonesia, the rise in corporate fraud cases is also a major concern. Cases such as the manipulation of financial reports in several large companies listed on the Indonesia Stock Exchange (IDX) demonstrate that fraud is not only a problem in developed countries, but also in developing countries like Indonesia. The following is a snapshot of the fluctuation in fraud cases in Indonesia. One of Indonesia's largest companies, PT Garuda Indonesia, was involved in a fraud case in 2018. The company manipulated its financial reports, showing that PT Mahata Aero Teknologi's debts were considered profits for Garuda Indonesia (Okezone.com, 2019). Furthermore, there is also the case of PT Asuransi Jiwasraya (Persero) misusing financial reports and committing corruption and money laundering (Natalis dan Angelina, 2022).

In addition to the increasing number of cases, state losses due to fraud have also increased significantly. In 2020, total state losses due to corruption reached IDR 18.7 trillion, up from IDR 15.1 trillion in 2019. These losses were largely attributed to embezzlement of public funds and bribery, which contributed IDR 10.4 trillion and IDR 5.3 trillion, respectively. (Sudarmanto et al., 2023). The increasing trend of fraud cases is also evident in the banking sector. According to a report by the Financial Services Authority (OJK), in 2020 there was a significant increase in the number of fraud cases reported by banks in Indonesia. The OJK recorded losses reaching IDR 1.2 trillion. Furthermore, a survey conducted by Novita (2019) found that 45% of companies in Indonesia have experienced at least one case of fraud in the last two years.Novita (2019) also reported that the average cost to companies due to fraud reached IDR 3.8 billion per case.

Upon closer examination, fraud in financial statements is actually closely related to several stakeholders within the company. Based on accounting standards, before being reported to the public, a company's financial statements must undergo at least several audit processes, including by management, such as the board of directors and the board of commissioners. Financial Services Authority Regulation Number 33 of 2014 concerning the Board of Directors and the Board of Commissioners states that directors are responsible for preparing financial statements and ensuring their accuracy. Once the financial statements are prepared, the board of directors will typically approve and sign them before submitting them to other parties. Therefore, any fraudulent financial statements can be detected before they are released to the public, as they have undergone several audits, unless the stakeholders themselves are committing massive fraud.

This fraud issue is closely related to corporate oversight systems. In developing countries like Indonesia, oversight systems may still have many weaknesses compared to developed nations. Developed countries like the United States use AI technology to detect suspicious transactions and activities. (Cnnindonesia.com, 2024). In Indonesia itself, AI technology has not been used to assist the government in monitoring fraud. Study by Simanjuntak et al. (2023) This study shows that Indonesia still faces significant challenges in terms of corruption and integrity, including in the private sector. Therefore, research on the influence of board diversity and audit committee effectiveness on the risk of fraud is highly relevant in this context.

In upper echelon theory, there are two interrelated parts: executive actions based on personal interpretations and interpretations based on executives' experiences, values, and personalities. Therefore, diversity in the board of commissioners, including gender, ethnicity, and educational background, is believed to improve the quality of decision-making and oversight because different perspectives can reduce the risk of unethical or fraudulent decisions. Research shows that diverse boards tend to be more effective in decision-making because they bring a variety of different perspectives. According to Fernandez-Temprano and Tejerina-Gaite (2020), diversity on boards of directors is positively related to company performance. They found that companies with gender diversity on boards of directors have better financial performance. This is due to the ability of diverse boards to view problems from multiple perspectives and make more comprehensive decisions. Furthermore, gender diversity on boards of commissioners has also been shown to reduce the risk of fraud. This research shows that diverse boards not only improve company performance but also strengthen corporate governance and reduce the risk of fraud.

One factor that can influence the risk of fraud in a company is the diversity of the board of commissioners. This diversity encompasses gender, age, and educational background. Gender diversity brings different perspectives and experiences, which can increase the effectiveness of decision-making and help identify and address potential problems. Study by Wang et al. (2022) found that the presence of women on boards can improve oversight and reduce fraud incidents. This is because women tend to be more cautious and ethical in decision-making than men. Furthermore, based on research conducted by Halim, Alias, and Haron (2021) it is known that age diversity does not explain any relationship to the risk of fraud, whereas in research by (Arioglu, 2021), Age diversity on the board appears to have a positive impact on corporate risk. This difference provided a gap for researchers in conducting this study. The final aspect of board diversity in this study is educational background. The educational backgrounds of board members span a variety of disciplines, including accounting, law, engineering, and others. According to Sri,et all (2021) Board members with accounting backgrounds are less likely to engage in fraudulent behavior.

The Audit Committee, which is under the Board of Commissioners, is established and reports to the Board of Commissioners to assist the Board of Commissioners in carrying out its oversight duties and functions related to financial reporting and internal and external control systems. Audit committee members are appointed and dismissed by the Board of Commissioners and report to the RUPS. The audit committee charter defines its responsibilities. (www.icptk.co.id, 2023). The effectiveness of the audit committee is also a crucial factor in preventing fraud. An effective audit committee should be able to closely oversee the company's financial reporting process and internal control systems. Audit committees with members with adequate financial expertise and experience can be more effective in detecting and preventing fraud. (Oussii & Boulila, 2021). According to OJK Regulation No.

55/POJK.04/2015, the audit committee must meet at least once every three months. All audit committee meetings, unless there are disagreements, must be recorded in minutes signed by all audit committee members and submitted to the board of commissioners. The audit committee must also submit a report to the board of commissioners and the audit committee.

Based on the results of research by Marzuki and Abdullah (2019) shows that there is no relationship between the frequency of audit committee meetings and the risk of financial reporting fraud, however, several other related journals show different results, such as in research conducted by (Virani and Khairani, 2023) In his journal, which examined the role of audit committee meeting frequency in fraud disclosure, he found that audit committee meeting frequency had a positive effect on fraud disclosure. Independence is a state or attitude in which there is no affiliation with any party. This independence is necessary to ensure the integrity and objectivity of the audit committee's findings and recommendations. Research result by Ferina and Pratama (2023) shows that the independence of the audit committee has a positive effect on the disclosure of fraud in financial reports, while research according to Vernanda and Ilham (2021) independent audit committee has a negative effect on financial reporting fraud.

In Indonesia, the importance of board diversity and audit committee effectiveness is increasingly recognized in corporate governance regulations and practices. The Financial Services Authority (OJK) has issued various regulations encouraging companies to improve diversity and effectiveness in their governance. For example, OJK Regulation No. 33/POJK.04/2019 concerning the Board of Directors and Board of Commissioners of Issuers or Public Companies requires companies to consider diversity in appointing board members. Furthermore, OJK Regulation No. 55/POJK.04/2020 concerning the Establishment and Guidelines for the Implementation of Audit Committee Work emphasizes the importance of the expertise and independence of audit committee members in efforts to improve oversight and prevent fraud. The risk of fraud is certainly faced by all companies, including BUMN.

The selection of state-owned enterprises BUMN listed on the Indonesia Stock Exchange as research subjects was based on several reasons. Besides the numerous fraud cases found in several SOEs, another reason is that BUMN are a key pillar of the Indonesian economy. According to the Central Statistics Agency (2021), BUMN contribute significantly to Indonesia's Gross Domestic Product (GDP), with strategic sectors such as energy, infrastructure, and transportation. Therefore, the performance and integrity of SOEs have a direct impact on economic stability and public welfare. Another reason is that BUMN often interact extensively with the public and other stakeholders. Public trust is a vital element in this industry, and fraud cases can damage a company's reputation and undermine public trust. For example, fraud cases involving the manipulation of financial statements or misappropriation of funds can result in major scandals that harm the company financially and damage its reputation in the public eye. Companies involved in fraud cases typically experience a significant decline in public trust and market value. The novelty of this research is not only focused on the selected companies but also combines several aspects of board characteristics, which are then calculated using the Beneish M-Score.

Therefore, understanding factors that can reduce the risk of fraud, such as board diversity and audit committee effectiveness, is crucial for state-owned enterprises (BUMN). BUMN are highly competitive, making them more susceptible to pressure to manipulate financial statements to show better performance than actual performance. In this context, board diversity and audit committee effectiveness can serve as important oversight mechanisms to reduce opportunities for management to commit fraud. Furthermore, BUMN often face high operational complexity, including extensive and diverse supply chains, as well as strict regulations regarding transparency and accountability. This complexity can increase the risk of fraud, particularly in the procurement of goods and services and financial reporting.

LITERATURE RIVIEW

1. Agency theory

Agency theory is one of the most prominent theories in the study of corporate governance. Agency theory focuses on the relationship between principals (company owners or shareholders) and agents (company managers or executives), and the conflicts of interest that may arise between them. Shareholders, as principals, entrust the management of the company to managers, as agents. However, managers do not always have the same interests as shareholders. Principals expect managers to maximize company value and improve shareholder welfare, but managers may have different personal interests, such as obtaining higher compensation, expanding control, or reducing personal risk. These differences in interests can give rise to what is known as an agency problem.

With the existence of certain interests from management or internal company parties to achieve these goals and prosperity, it can open up opportunities for certain parties to commit fraud in financial reports. One of the main mechanisms to reduce agency problems is an effective corporate governance structure. Agency theory states that implementing good corporate governance can reduce conflicts of interest and information imbalances that arise. Corporate governance develops various mechanisms with the aim of ensuring that management actions are in line with the interests of shareholders (Catur, 2024).

The board of commissioners and the audit committee are two important elements of the governance structure that serve as oversight tools for management. The board of commissioners is responsible for overseeing the performance of the board of directors and ensuring that the company is managed in accordance with the interests of shareholders. Diversity within the board of commissioners, such as gender and ethnic diversity, can improve the quality of oversight because different perspectives can help identify and address agency problems (Ermawati & Soewarno, 2024). The audit committee, on the other hand, is responsible for overseeing the integrity of the financial reporting process and ensuring that the company's financial statements are free from fraud and manipulation. The effectiveness of an audit committee depends on the financial expertise, independence, and active participation of its members. An effective audit committee can help reduce the risk of fraud by ensuring that the company's internal control system is functioning properly and that managers cannot conceal actions that are detrimental to shareholders (Dimitrijevic et al., 2020). Overall, agency theory provides an important foundation for understanding the relationship between shareholders and managers, and how conflicts of interest can be managed through effective corporate governance.

2. Upper Ecelon Theory

Hambrick and Mason (1984) created the upper echelons theory, which states that the characteristics of leaders in an organization can predict strategic choices and performance levels. This theory states that, to understand the reasons for decisions made by an organization, the biases or dispositions of executives, as the most powerful parties in specialized organizations, must be considered. Executives' experiences, values, and personalities will influence their interpretations. These interpretations will then influence the strategies chosen (Hambrick dan Mason, 1984). According to Hambrick (2007) the upper echelons theory consists of two interrelated parts. First, personal interpretations will determine executive actions. Second, the executive's personality, values, and experiences will shape those interpretations. According to this theory, executive demographic characteristics such as age, experience, education, and gender can be used as valid proxies.

3. Fraud Triangle and Fraud Diamond Theories

Fraud is a serious problem that can result in significant losses for companies and their stakeholders. To understand why individuals or groups commit fraud, several theories have been developed by experts. Two of the most prominent theories explaining this phenomenon are the Fraud Triangle Theory and the Fraud Diamond Theory. Both theories provide a useful framework for analyzing the conditions that encourage fraud and the factors that influence it. The Fraud Triangle Theory was introduced by Donald Cressey in 1953. Cressey, an American sociologist, proposed that fraud occurs when three main elements are present simultaneously: pressure, opportunity, and rationalization. These three elements form an interconnected triangle that creates conditions that allow fraud to occur.

David T. Wolfe and Dana R. Hermanson developed the Fraud Diamond Theory as an extension of the Fraud Triangle. They added a fourth element, capability, to the existing framework. The Fraud Diamond recognizes that in addition to pressure, opportunity, and rationalization, individual capability also plays a significant role in enabling fraud (Rustiarini et al., 2019). The capability element emphasizes that not all individuals who have pressure, opportunity, and rationalization will commit fraud; only those with special abilities can do so. Capability refers to the specific characteristics or skills that enable an individual to successfully commit fraud. This includes knowledge of how to commit fraud, access to necessary resources, and the courage to take risks. The fraud diamond theory emphasizes that to understand and prevent fraud, organizations need to consider all four elements. While the fraud triangle provides a solid foundation for understanding the conditions that encourage fraud, the fraud diamond offers a more comprehensive view by adding the capability dimension. Understanding the fraud triangle and the fraud diamond has important implications for organizations in designing fraud prevention and detection strategies.

4. Diversity of the Board of Commissioners

Board diversity is an important concept in corporate governance that is receiving increasing attention from academics, practitioners, and regulators. Board diversity refers to variations in the personal and professional characteristics of board members, including gender, ethnicity, age, educational background, professional experience, and various other attributes. Board diversity reflects efforts to create a board that is representative of various segments and stakeholders and able to provide a broad perspective in strategic decision-making. In general, board diversity is defined as the existence of variations in the board's composition based on demographic and professional characteristics. Elements of board diversity encompass various aspects that can be categorized as follows:

a. Gender diversity. Gender diversity refers to the proportion of women and men on the board of commissioners. Studies show that the presence of women on the board can bring various benefits, including improved oversight and decision-making. Research by Reguera-Alvarado et al. (2017) found that companies with more gender-diverse boards tend to have better financial performance. This is due to the diverse perspectives women bring, which can help identify and address issues that might be overlooked by a more homogeneous board.
b. Ethnic diversity. Ethnic diversity refers to the representation of different ethnic groups on the board of directors. Ethnic diversity is important because it can improve the board's understanding of diverse markets and help the company be more responsive to the needs and preferences of various consumer groups. Study by Gomez and Bernet (2019) shows that ethnic diversity on the board can increase innovation and creativity, which in turn can improve company performance.
c. Age diversity on the board of commissioners encompasses the age distribution of board members. Younger board members may bring fresher and more innovative perspectives, while older board members may possess deeper experience and wisdom. This combination of ages can create a healthy dynamic in decision-making and ensure that the board considers multiple perspectives before making strategic decisions.
d. Diversity of educational and professional backgrounds refers to the variation in formal education and work experience of board members. Board members with backgrounds in various disciplines, such as law, finance, marketing, and technology, can provide comprehensive insights and help companies address complex challenges. Boards composed of individuals with diverse educational backgrounds tend to be more effective in overseeing management and making better decisions.
e. Social and cultural diversity encompasses various aspects such as the values, beliefs, and cultural norms held by board members. This diversity is important because it can influence how board members interact, communicate, and make decisions. A board composed of individuals from diverse social and cultural backgrounds is better able to understand and respond to social issues relevant to the company and its stakeholders.

Research by Maulidi (2023) research shows that more gender-diverse boards tend to be more active in oversight of management and more effective in reducing the risk of fraud. Furthermore, board diversity can also enhance innovation and creativity. Board diversity can help companies better understand diverse markets and make more informed and inclusive decisions. On the other hand, diversity can also lead to conflict and disagreement in decision-making if not managed properly. Therefore, it is important for companies to carefully manage diversity and create an environment that supports inclusion and collaboration.

5. Audit Committee

The audit committee is a subcommittee of the board of commissioners responsible for overseeing the integrity of the company's financial statements, ensuring compliance with accounting regulations and standards, and assessing the effectiveness of the company's internal control system. To function effectively, the audit committee must have several essential elements that ensure they can carry out their duties and responsibilities properly. The definition of audit committee effectiveness includes the committee's ability to carry out its oversight responsibilities effectively, which in turn ensures that the company's financial statements are accurate and transparent, and that the company complies with all relevant regulations. The effectiveness of the audit committee depends on several key factors, including the composition of its members, independence, expertise, frequency of meetings, and the quality of communication with management and external auditors. According to Financial Services Authority Regulation (POJK) No. 55/POJK.04/2015 concerning the Establishment and Guidelines for the Implementation of the Work of Audit Committees, the audit committee must consist of at least three members, including an independent commissioner. Overall, the effectiveness of the audit committee is the result of a combination of various interrelated elements. A diverse membership, independence, accounting and financial expertise, adequate meeting frequency, quality communication, rigorous internal control oversight, ongoing training, and proper documentation all contribute to the audit committee's ability to perform its duties effectively. By ensuring these elements are in place, companies can enhance the effectiveness of their audit committees, reduce the risk of fraud, and enhance the integrity of their financial statements.

6. Hypothesis

a. The Influence of Gender Diversity in the Board of Commissioners on Fraud Risk

Gender diversity in boards of commissioners has become an important focus in corporate governance research, especially as there is growing evidence that this diversity can bring various benefits to organizations, including improving the quality of oversight and reducing the risk of fraud. research by Fauzyyah and Rachmawati (2018) found that the presence of women on boards of commissioners can improve the quality of oversight. They stated that women tend to be more cautious and critical in decision-making, which can reduce the risk of fraud. Women on boards often carry strong ethical values and are more likely to challenge unethical or high-risk management decisions. This can increase integrity and transparency in the company's decision-making process. The presence of women on boards helps detect potential fraud because they bring a different perspective and are often more thorough in reviewing financial statements. In the Indonesian context, gender diversity on boards of commissioners remains a significant challenge. Although there has been an increase in the number of women serving as board members, the proportion is still relatively low compared to men. Based on the above description, the following hypothesis will be formulated:

H1: Gender diversity in the board of commissioners has a negative impact on the risk of fraud.

b. The Influence of the Age of the Board of Commissioners on Fraud Risk

A board of commissioners composed of members with diverse age ranges can provide diverse perspectives, which can ultimately aid in detecting and preventing fraud. Younger board members may bring fresher and more innovative perspectives, while older members can provide wisdom and deep experience. This combination creates an environment in which various risks can be identified and addressed more effectively. Older board members tend to be more conservative and cautious, which can reduce the likelihood of high-risk decisions and potential fraud. On the other hand, the presence of younger board members can encourage the adoption of modern technology and management practices, which can improve the efficiency and effectiveness of oversight. Overall, age diversity within the board of commissioners can serve as an important mechanism in enhancing oversight effectiveness and reducing the risk of fraud. By combining perspectives and experiences from various age groups, the board of commissioners can be more responsive and adaptive to the dynamics and challenges facing the company. Based on the above description, the following hypothesis will be formulated::

H2: The age of the board of commissioners has a negative effect on the risk of fraud.

c. The Influence of Educational Background Diversity in the Board of Commissioners on Fraud Risk

Board members' educational backgrounds span a wide range of disciplines and work experience, including accounting, finance, law, marketing, technology, and operational management. Board members with experience in various industries and business functions can bring diverse insights into best practices and risks associated with the company's operations. This can help the board assess management performance more comprehensively and objectively and ensure that company strategies and policies are designed to minimize the risk of fraud. Thus, diverse educational backgrounds can serve as a strong oversight mechanism that helps maintain the integrity and transparency of the company's operations.

In the context of corporate operations, diverse educational backgrounds can help identify and better manage risks. For example, members with a background in risk management or internal audit can provide valuable insights into how to build and maintain an effective internal control system. Thus, diverse educational backgrounds on the board of commissioners can strengthen the internal oversight system and reduce the opportunity for fraud. Diverse educational backgrounds can also enhance the company's credibility and reputation among stakeholders. Furthermore, diversity on the board of commissioners can help the company be more responsive to changes in the business and regulatory environment, which can reduce compliance and legal risks. Based on the above description, the following hypotheses can be developed:

H3: Diversity of educational backgrounds in the board of commissioners has a negative impact on the risk of fraud.

d. The Influence of Audit Committee Meeting Frequency on Fraud Risk

The frequency of audit committee meetings also plays a role in evaluating the effectiveness of a company's internal controls. Audit committee meeting frequency also reflects the ability to stay abreast of the latest developments in accounting and financial reporting. Accounting standards and regulations are constantly evolving, and audit committee members need to adapt to these changes to ensure their company remains compliant. Considering the importance of audit committee meeting frequency in carrying out its oversight and fraud prevention functions, it can be hypothesized that audit committee meeting frequency negatively impacts the risk of fraud. This means that the higher the frequency of audit committee meetings, the lower the risk of fraud within the company. Regular meetings enable the audit committee to more effectively review financial statements, communicate with external auditors, evaluate internal controls, and understand and manage risks. Based on the above description, the following hypotheses can be developed:

H4: The frequency of audit committee meetings has a negative impact on the risk of fraud.

e. The Influence of Audit Committee Independence on Fraud Risk

Audit committees that are independent from company management are able to carry out their oversight duties more effectively, as they can act without conflicts of interest that might impair their objectivity and integrity. In this context, it is important to explore how audit committee independence can affect the risk of fraud within a company. Audit committees that are not independent may face pressure from management to cover up or ignore certain financial matters, which can ultimately increase the risk of fraud. Conversely, independent audit committees have the necessary tools to challenge questionable management decisions and ensure that the company's financial statements reflect the true state of affairs.

Independent audit committees have no vested interests related to the company's financial results and can therefore focus on ensuring that the financial statements are prepared in accordance with applicable accounting standards. This independence allows them to more critically evaluate the financial statements and detect signs of fraud that a non-independent audit committee might miss. The audit committee's independence also allows them to communicate with external auditors without pressure from management. External auditors are often the first line of defense in detecting potential fraud in a company's financial statements. However, if external auditors feel they are not supported by an independent audit committee, they may be reluctant to report negative or suspicious findings. With an independent audit committee, external auditors can report their findings more freely and confidently, which in turn improves audit effectiveness and reduces the risk of fraud.

Furthermore, the audit committee's independence allows them to evaluate and strengthen the company's internal control system without any conflict of interest. Strong internal controls are key to preventing fraud, and an independent audit committee can be more objective in assessing the effectiveness of existing internal controls. Based on the above description, the following hypotheses can be developed:

H5: The independence of the audit committee has a negative impact on the risk of fraud.

METHODOLOGY

The population in this study was all state-owned enterprises listed on the Indonesia Stock Exchange (IDX) during the 2019-2023 period. The sample was selected using a purposive sampling method. The sampling criteria used in this study are as follows:

1. Companies that are included in BUMN and listed on the IDX during the 2019-2023 period.

2. Companies that publish complete annual reports that are accessible to the public.
3. Companies that have an audit committee and board of commissioners whose data can be obtained for analysis.

The number of companies included in the research sample was 19 companies, and the total number of research samples for the research period of 2019–2023 was 95. This study used quantitative data, utilizing secondary data sourced from company financial reports and annual reports. The data sources were obtained by downloading annual financial reports and annual reports of state-owned enterprises (BUMN) from the Indonesia Stock Exchange website (www.idx.co.id) for the period 2019–2023 and the official BUMN websites. In addition, the researcher also used supporting data in the form of journals, books, scientific papers, articles, and mass media records..

Fraud risk indicators include reports of fraud, embezzlement of assets, manipulation of financial statements, and other illegal acts that harm the company. The risk of fraudulent financial statements (RF) in this study was measured using the Beneish M-Score, an indicator for detecting potential financial statement manipulation (Beneish, 1999). The Beneish M-Score is calculated using the following formula.

$$\begin{aligned}\boldsymbol{M-Score\ (i,t)} &= \boldsymbol{-4.84 + 0.920\ DSRI\ (i,t) + 0.528\ GMI\ (i,t)} \\ &\quad \boldsymbol{+ 0.404\ AQI\ (i,t) + 0.892\ SGI\ (i,t) + 0.115\ DEPI\ (i,t)} \\ &\quad \boldsymbol{- 0.172\ SGAI\ (i,t) - 0.327\ LVGI\ (i,t) + 4.697\ TATA\ (i,t)}\end{aligned}$$

Gender diversity (BCGENDER) refers to the proportion of women and men on the board of commissioners. Wang et al. (2022) found that the presence of women on the board can improve oversight and reduce incidents of fraud. This is because women tend to be more careful and ethical in decision-making than men. Gender diversity refers to research (Assenga & Aly, 2018) which measures the number of female commissioners compared to the total number of commissioners. In this study, the measurement of the age of the board of commissioners (BCAGE) accumulate the number of board of commissioners aged under 50 years and divide by the total number of board of commissioners. (Robby, 2023). Boards with a broader age range tend to be more dynamic and better able to identify fraud risks. Younger board members may bring fresher and more innovative perspectives, while older members can provide deep wisdom and experience.

Board of Commissioners' educational diversity variable (BCEDU) obtained by knowing the risk of the number of board of commissioners who have received higher education in the economic and business sector and divided by the total number of board of commissioners (Noja, 2021 and Robby, 2023). Frequency of audit committee meetings (ACMEET) is the number of meetings or gatherings held by members of the audit committee. The Audit Committee holds regular meetings at least once every three months (Otoritas Jasa Keuangan, 2015). The number of audit committee meetings in this study was calculated from the number of meetings held by the audit committee in one year (Fitria, 2015 and Hizkia, 2021). The independence of the audit committee is calculated by using the calculation of independent audit committee members from the total number of audit committee members. The regression model used is:

$$\boldsymbol{RF = \alpha + \beta_1 BCGENDER + \beta_2 BCAGE + \beta_3 BCEDU + \beta_4 ACMEET + \beta_5 ACINDP + \varepsilon}$$

Keterangan:

RF	= Fraud Risk
α	= Constant
$\beta_1\ \beta_2\beta_3\beta_4\beta_5$	= Regression Coefficient
BCGENDER	= Gender of the Board of Commissioners
BCAGE	= Age of the Board of Commissioners
BCEDU	= Educational Background of the Board of Commissioners
ACMEET	= Frequency of Audit Committee Meetings
ACINDP	= Independence of the Audit Committee
ε	= *Error*

RESULTS AND DISCUSSION

1. Descriptive Statistical Analysis

The descriptive statistical results of each variable are as follows: the gender variable of the board of commissioners has a minimum value of 0, a maximum value of 0.35, a mean of 0.014, and a standard deviation of 0.11886. The age variable of the board of commissioners has a minimum value of 0, a maximum value of 0.43, a mean of 0.021, and a standard deviation of 0.14385. The educational background variable of the board of commissioners has a minimum value of 0.03, a maximum value of 0.92, a mean of 0.047, and a standard deviation of 0.21744. The frequency variable of audit committee meetings has a minimum value of 8.40, a maximum value of 51.60, a mean of 101.857, and a standard deviation of 10.09244. The audit committee independence variable has a minimum value of 0.34, a maximum value of 0.78, a mean of 0.013, and a standard deviation of 0.11365. The Y variable, namely Beneish M-Score, has a minimum value of -12.87, a maximum value of 2.21, a mean of 14.373, and a standard deviation of 3.79113.

2. Classical assumption test

Classical assumption testing is an absolute requirement that must be met before conducting a hypothesis test that begins with a normality test using the Kolmogorov-Smirnov method. Each variable has an Asymp. Sig. (2-tailed) value, namely the Age Diversity Variable (X1) of 0.124, the gender variable (X2) of 0.200, the educational diversity variable (X3) of 0.200, the audit committee meeting frequency variable (X4) of 0.200, the number of independent audit committees (X5) of 0.200; and the Beneich M-Score variable of 0.167. [O17.1] The Asymp. Sig. (2-tailed) value of the six variables above has a value above 0.50 (greater than 0.5). If we look at the normality test criteria proposed by (Ghozali, 2019) above, it can be concluded that the data is normally distributed..

3. Multicollinearity test

The following are the results of the Multicollinearity test with SPSS 25

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4.490	5.643		.796	.441		

	BC_GENDER	6.731	8.526	.211	.790	.444	.715	1.398
	BC_AGE	.715	6.774	.027	.105	.918	.773	1.293
	BC_EDU	4.376	4.507	.251	.971	.349	.765	1.308
	AC_MEET	-.059	.101	-.157	-.584	.569	.707	1.415
	AC_INDEPENDEN	-14.570	8.543	-.437	-1.706	.112	.779	1.284

a. Dependent Variable: BENEICH_M_SCORE

Based on the Multicollinearity test table above, it can be seen that the gender diversity variable (X2), Tolerance value = 0.715, and VIF = 1.398 age diversity variable (X1) with Tolerance value 0.773 and VIF 1.293. Educational diversity variable (X3), Tolerance value = 0.765, and VIF = 1.308. Audit committee meeting frequency variable (X4), Tolerance value = 0.707, and VIF = 1.415. Number of independent audit committee variable (X5), Tolerance value = 0.779, and VIF = 1.284[O19.1]. The Tolerance value of the five independent variables above has a value above 0.01 (greater than the minimum required value of 0.01). Likewise, the VIF values for the five variables also showed values below 10 (less than the required maximum value of 10). Referring to the multicollinearity test criteria proposed by (Ghozali, 2019) above, it can be concluded that there are no symptoms of multicollinearity in the regression model.

4. Heteroscedasticity test

The heteroscedasticity test used in this study is the Glejser test. The significance value generated for each independent variable is >0.05, indicating that there is no heteroscedasticity between the independent variables..

5. Autocorrelation test

The dL value is 0.7523 and the dU value is 2.0226. The Durbin Watson value obtained from the SPSS 25 test results is 1.882. This value is between the dL and dU values (0.7523 < 1.882 < 2.0226), so it can be concluded that there is no autocorrelation symptom in the regression model.

6. Hypothesis testing

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	4.490	5.643		.796	.441
	BC_GENDER	6.731	8.526	.211	.790	.444
	BC_AGE	.715	6.774	.027	.105	.918
	BC_EDU	4.376	4.507	.251	.971	.349
	AC_MEET	-.059	.101	-.157	-.584	.569
	AC_INDEPENDEN	-14.570	8.543	-.437	-1.706	.112

a. Dependent Variable: BENEICH_M_SCORE

The results of the t-table value are greater than the calculated t-value and the significance value of each variable is greater than 0.05, so it can be concluded that all hypotheses are rejected. The results of the t-test on hypothesis 1 = 0.105; Sig. Hypothesis 1 = 0.444. Then H1 is rejected, meaning there is no effect of the diversity of commissioners' ages on the risk of fraud. The results of the t-test on hypothesis 2 = 0.790; Sig. Hypothesis 2 = 0.918. Then H2 is rejected, meaning there is no effect of the diversity of commissioners' gender on the risk of fraud. The results of the t-test on hypothesis 3 = 0.971; Sig. Hypothesis 3 = 0.349. Then H3 is rejected, meaning there is no effect of the diversity of commissioners' education on the risk of fraud. The results of the t-test on hypothesis 4 = -0.584; Sig. Hypothesis 4 = 0.569, so H4 is rejected, meaning there is no effect of the frequency of audit committee meetings on the risk of fraud. The t-test result for hypothesis 5 = -1.706; Sig. Hypothesis 5 = 0.112, so H5 is rejected, meaning there is no effect of audit committee independence on the risk of fraud.

CONCLUSIONS

1. Conclusion

The gender of the board of commissioners negatively affects the risk of fraud. The presence of women on the board does not help detect potential fraud because they bring different perspectives and are often more thorough in reviewing financial statements. The age of the board of commissioners negatively affects the risk of fraud. A board of commissioners consisting of members with a diverse age range can provide different perspectives, which in turn can help detect and prevent fraud. Younger board members may bring fresher and more innovative perspectives, while older members can provide wisdom and in-depth experience. The educational background of the board of commissioners negatively affects the risk of fraud. A board of commissioners that is homogeneous in terms of educational background may be less able to identify and address various forms of fraud due to limited perspectives and expertise. Conversely, diverse educational backgrounds can enrich discussions and analysis within the board, allowing members to view problems from various perspectives and find more effective solutions. The frequency of audit committee meetings negatively affects the risk of fraud. The higher the frequency of audit committee meetings, the lower the risk of fraud in the company. These regular meetings enable the audit committee to more effectively review financial statements, communicate with external auditors, evaluate internal controls, and understand and manage fraud risks. Audit committee independence negatively impacts the risk of fraud. An independent audit committee has the necessary tools to challenge questionable management decisions and ensure that the company's financial statements reflect the true nature of the situation. Independent audit committee members have no personal interests related to the company's financial results and can therefore focus on ensuring that the financial statements are prepared in accordance with applicable accounting standards. This independence allows them to be more critical in evaluating financial statements and to detect signs of fraud that a non-independent audit committee might miss.

2. Research Limitations

This research only tested several diversity factors of the board of commissioners and audit committee and only focused on samples of state-owned companies listed on the IDX, so it is less able to generalize the occurrence of diversity of the board of commissioners and the effectiveness of the audit committee.

3. Suggestions and Directions for Future Research

The researchers suggest that future research include a broader sample of companies and a more updated financial report period. In addition to the sample, they also suggest adding other independent variables, including the board of commissioners and the board of directors, and other variables from the audit committee, with fraud risk calculations using the f-score or other fraud calculations.

Simpulan menyajikan ringkasan dari uraian mengenai hasil dan pembahasan, mengacu pada tujuan penelitian. Berdasarkan kedua hal tersebut dikembangkan pokok-pokok pikiran baru yang merupakan esensi dari temuan penelitian.

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