

## The Role of Financial Distress in Mediating the Effect of Intellectual Capital on Financial Statement Fraud

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**ABSTRACT:** *This research aims to study the effect of intellectual capital on financial statement fraud directly and mediated by financial distress. The population of this study is banking companies listed on the Indonesia Stock Exchange (IDX) from 2016 to 2021. Determination of the research sample using purposive sampling resulted in 64 observation data as the final sample during the six-year observation period. Data analysis using multiple regression and path analysis using SPSS version 26. The results showed that intellectual capital influences financial statement fraud and financial distress mediation in these relationships.*

**KEYWORDS** -Bank, Financial Statement Fraud, Financial Distress, Indonesia, Intellectual Capital

### I. INTRODUCTION

Fraud is an intentional act against the law for a specific purpose (usually self-benefit) which can cause damage to the organization, employees, or other parties (ACFE, 2022). It means that the perpetrator intentionally violates the internal provisions of the organization, such as organizational systems, policies, and procedures. ACFE (2022) categorizes fraud into three branches: misappropriation of assets, financial statement fraud, and corruption. Based on the Report to The Nations, in 2021, there were 2,110 cases of fraud from 133 countries, with a total loss of more than USD 3.6 billion.

Data Report to The Nations shows that misappropriation of assets occurs in 86 percent of cases, with an average loss of USD 100,000 per case. Furthermore, corruption schemes are in the middle regarding both frequency and financial losses occurring in 43 percent of cases with an average loss of USD 200,000. Finally, financial statement fraud occurred in 10 percent of cases with the highest number of fraudulent losses, an average loss of USD 954,000 per case. This is in line with the Indonesian Fraud Survey (ACFE Indonesia, 2020), where the number of financial statement fraud was only 22 cases (9.2%), but the total loss reached 242.26 billion rupiahs.

Financial statement fraud is a major ethical issue for businesses and the most serious concern in today's business environment (Lotfi et al., 2022). This fraud has consequences in reducing the reliability of company financial statements and trust in financial markets and is detrimental to stakeholders such as creditors, investors, employees, and the government (Salehi et al., 2022). This fraud also provides wrong information to the market, causes market inefficiencies in allocating resources, and causes significant financial losses for individuals and companies (Lotfi et al., 2022). Otoritas Jasa Keuangan (2019) also believes that companies that commit financial statement fraud can be given administrative or criminal sanctions. All these impacts indicate that companies need to overcome problems related to financial statement fraud.

The 2019 Fraud Indonesia Survey shows that the party that suffers the most from fraud is the financial and banking industry which is 41.4% greater than the government sector, which is only 33.9%. Several cases of financial statement fraud have occurred in the banking sector in Indonesia, such as Bank Duta (1990), Bank Bapindo (1994), Lippo bank (2002), Bank Century (2008), and Bank Bukopin (2018). One example is the financial statement fraud scheme at Bank Bukopin, which was carried out by modifying a credit card. As a result of this case, Bank Bukopin had to revise its 2015, 2016, and 2017 financial statements so that there was a decrease in the company's net profit and revenue (Ayem & Yuliana, 2019).

Previous research explains that the reasons for financial statement fraud can refer to bad governance performance, such as boards of directors and audit committees (Md Nasir & Hashim, 2020). These perpetrators view financial statement fraud as higher when the chief financial manager is male, is younger, and has a lower educational background (Sun et al., 2019). In addition, the causes of financial statement fraud will be related to pressure factors, namely financial stability (Irwandi et al., 2019) and financial targets (Ozcelik, 2020), as well as various other triangle fraud factors (Khamainy et al., 2022). This research will discuss financial statement fraud and its relationship with intellectual capital.

Intellectual capital is one of the main components in a knowledge-based economy that leads to competitive company growth (Lotfi et al., 2022). Previous research found that intellectual capital can improve company performance, especially in banking companies (Ousama, 2019; Uslu, 2020). Intellectual capital can improve the return on company shares (Oppong et al., 2019), be able to compete in developing markets (Tran &

Vo, 2022), and improve the legibility of company financial statements (Dalwai& Mohammadi, 2020). Based on the governance aspect, companies with high intellectual capital will employ high-quality auditors. High audit quality will prevent financial statement fraud regarding opportunity factors (Naslmosavi& Jahanzeb, 2016). In addition, one component of intellectual capital, relational capital, refers to a solid ethical relationship between companies and customers, so ethical companies can prevent managers' intentions to commit fraud (Salehi et al., 2022).

Several studies have found that intellectual capital can reduce the occurrence of financial statement fraud (Lotfi et al., 2022; Salehi et al., 2022). The research explains that companies in emerging markets tend to commit fewer financial statement fraud through improved performance and internal controls. In addition, this research also explains that employing a knowledgeable and skilled workforce, building an efficient internal control system, increasing ethical values within the company, and creating good relationships with external stakeholders can improve company performance and reduce managers' opportunistic behaviour, namely financial statements fraud.

Several studies have found different results. Intellectual capital is positively related to fraudulent financial statements (Jay, 2003; Jaya et al., 2021; Ridwan et al., 2020). Jay (2003) argues that poor intellectual capital management, such as the absence of generally accepted standards, frameworks, and practices, led to Enron's bankruptcy and these conditions led to acts of financial statement fraud. Jaya et al. (2021) explain that the intellectual capital provided by the company offers value to the company, and management can use it for their interests, one of which is doing earnings management and financial statement fraud. Ridwan et al. (2020) argue that companies that have small assets or significant assets but also have large cash outflows can commit fraud by utilizing the value of intellectual capital, namely manipulating the value of company receipts or employee expenses and these companies can also use earnings management methods to carry out financial statement fraud. However, Beatrix & Rachmawati (2022) found that intellectual capital does not affect financial statement fraud.

The inconsistent results of previous studies may be caused by the influence of other variables not controlled by previous researchers, one of which is financial distress. Financial statement fraud can be caused by a company's deteriorating financial performance and will result in financial distress (Aviantara, 2021), as in the case of PT. Garuda Indonesia. The condition of a company experiencing financial distress will have the potential for management to commit financial statement fraud. Management wants the company's performance to be judged fairly by shareholders and other stakeholders because its performance is not optimal (Annafi&Yudowati, 2021). It shows that financial distress conditions will cause management to be increasingly motivated to commit financial statement fraud.

Financial distress encourages fraudulent financial reports (Annafi&Yudowati, 2021; Aviantara, 2021; Tommy & Marietza, 2022; Widharma&Susilowati, 2020). However, financial statement fraud can be prevented by utilizing intellectual capital. It is because the better the intellectual capital management of a company, the company's performance will also increase and vice versa. A decrease in performance will affect the profits generated by the company, and this will lead to the possibility of financial distress.

Intellectual capital can reduce the occurrence of financial distress (Budiarti, 2020; Noviani et al., 2022; Shahwan& Habib, 2020). Intellectual capital plays a role in reducing the occurrence of financial statement fraud mediated by financial distress. This research was conducted to analyse the effect of intellectual capital on financial statement fraud with financial distress as a mediating variable. This research was conducted in the banking sector listed on the Indonesia Stock Exchange for the 2016-2021 period. The results of this study are expected to be used as a review of the literature regarding efforts to reduce or prevent fraud in the banking sector from the perspective of using intellectual capital for financial statement fraud. In addition, this research helps help policymakers to formulate strategies and programs for banking sector to increase intellectual capital to reduce financial statement fraud within organizations.

## **II. FRAMEWORK THEORETICAL AND HYPOTHESES FORMULATION**

### **2.1 Fraud Triangle**

The fraud triangle theory (Cressy, 1953) can be used by organizations and companies in analysing various fraud vulnerabilities. This research explains that a person commits fraud when there is pressure, such as a financial problem that cannot be resolved together, there is an opportunity to take advantage of the position he has and rationalizes from the mindset of the person who is trusted to hold the asset to become the user of the entrusted asset (Tickner & Button, 2021). It shows that three factors cause fraud: pressure, opportunity, and rationalization. Intellectual capital can be one way to reduce the occurrence of financial statement fraud based on the fraud triangle because:

First, intellectual capital can increase profits based on financial performance and relieve the company's financial pressure. Several previous studies have shown that disclosure of intellectual capital in the company's annual report has a positive and significant effect on the company's financial performance and stock returns

(Oppong et al., 2019). In addition, intellectual capital improves financial performance and reduces financial distress (Shahwan& Habib, 2020). Therefore, this can reduce the potential for financial statement fraud. Intellectual capital also provides many competitive advantages for companies regarding customer loyalty and company innovation (Mom et al., 2015; Mubarik et al., 2016). For example, companies that focus on relationship capital (RC) are considered good corporate citizens who will lead to increased financial performance than those that do not (Salehi et al., 2022). Accordingly, companies with a thriving economic status and better finances are less motivated to engage in creative accounting, including applying imprecise accounting procedures, overestimating sales, understating expenses, and engaging in financial statement fraud.

Second, based on corporate governance, intellectual capital is substantially linked to the internal governance system and limits opportunities for fraud. Previous research on the effect of intellectual capital on corporate governance shows a positive impact of intellectual capital on corporate governance mechanisms (Tran et al., 2020). One of the components of intellectual capital is structural capital (SC), which includes all "non-human assets" such as databases, organizational structures, manuals, strategies, policies, and other items whose value to the company is higher than material value (Bontis et al., 2000). In addition, other components of intellectual capital, such as human capital (work of knowledgeable employees), and relational capital (building good relationships between external parties such as auditors and internal parties such as management), can significantly increase the effectiveness of corporate governance mechanisms. Companies with high intellectual capital will employ high-quality auditors. High audit quality is also one of the influential factors in preventing financial statement fraud (Naslmosavi& Jahanzeb, 2016).

Lee and Mitchell (in Lotfi et al., 2021) believe that the internal morale of CEOs, investors, and employees shows a solid motivation to remain in ethical, responsible companies and deter opportunistic companies. Thus, internal stakeholders' internal values decrease a company's motivation to engage in fraudulent activities (Zheng et al., 2014). In the case of efficient corporate governance, internal controls may be considered integral for fraud prevention and detection. However, components of intellectual capital such as structural capital, human capital, and relational capital can be promoted and enhanced to reduce financial statement fraud.

Third, based on rationalization factors, Cressey (1953) implies that specific ideas allow managers to validate and direct fraudulent behaviour. Therefore, the tendency to exhibit fraudulent behaviour depends on the moral code and personal traits (Lotfi et al., 2022). This relational capital relationship refers to a solid ethical relationship between companies and their customers; ethical companies can reduce managers' intentions to commit fraud. It shows that companies can form intellectual capital if they have managers responsible for improving good relations between internal and external parties (Shahwan& Habib, 2020). Therefore, intellectual capital components such as human and relational capital can prevent managers from engaging in financial statement fraud, especially when such involvement can significantly damage a company's image in front of its customers and employees.

## **2.2 Agency Theory**

Jensen & Meckling's (1976) agency theory explains the contractual relationship between principal and agent. Stakeholders such as shareholders act as principals who delegate decision-making authority to manage and act as their agents. A good employment contract is made by observing the optimal performance of the agent and providing rewards according to the agreement. It is because agency relationships are motivated by various objectives based on their interests.

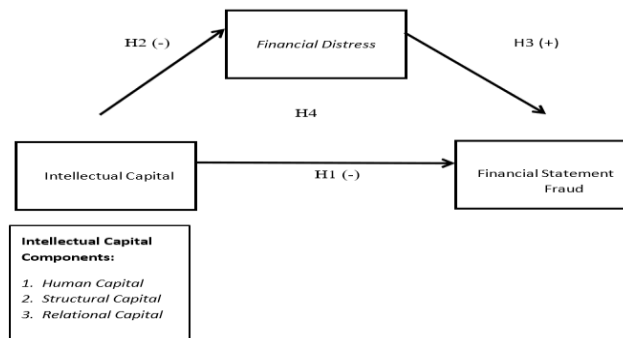
Agency relationships can create conditions of information imbalance because the agent has more company information than the principal (Dalwai& Mohammadi, 2020). In addition to playing a role in maximizing the welfare of stakeholders, managers are also interested in increasing their welfare. These differences in interests lead to agency problems. Managers can be encouraged to make voluntary disclosures to protect each party's interests from agency problems (Hafza&Purwanto, 2017). Disclosure of intellectual capital is an effective form of voluntary disclosure to prevent agency problems and the emergence of fraudulent financial statements (Hafza&Purwanto, 2017).

In the context of financial statement fraud, openness to voluntary disclosure, predominantly intellectual capital, can reduce fraudulent financial reporting behaviour. The intellectual capital component, namely the relationship model, forms a good relationship between management and stakeholders, and this makes management think that when there is fraudulent financial reporting, it can destroy the company's image as well as the integrity or reputation of the management (Shahwan& Habib, 2020). Intellectual capital is a governance mechanism in which human capital (knowledgeable employees), structural capital (databases, organizational structures, manuals, strategies, and policies), and relational capital (good relations between external parties such as auditors and internal parties) such as management will prevent fraudulent financial reporting. In addition, the development of intellectual capital can create value-added, which increases company profits and prevents pressure factors for financial statement fraud (Ahmad & Imam, 2016).

The cause of fraudulent financial statements because companies experience financial distress can be prevented by increasing intellectual capital (Shahwan& Habib, 2020). Intellectual capital improves company

performance, preventing financial distress (Ousama, 2019; Uslu, 2020). Therefore, increasing the utilization of intellectual capital can align and optimize the interests of all parties related to the company to minimize the possibility of financial statement fraud.

**2.3 Research Model**



**Figure 1: Research Model**

Based on the literature review, it can be developed a research model that explains the relationship between research variables in figure 1. The hypothesis is formulated according to the research model in Figure 1, as follows:

**2.3.1 Intellectual Capital against Financial Statement Fraud**

Based on agency theory, to protect the interests of each party from agency problems, managers can be encouraged to make voluntary disclosures (Hafza&Purwanto, 2017). Disclosure of intellectual capital is an effective form of voluntary disclosure to prevent conflicts of interest and the emergence of fraudulent financial statements (Hafza&Purwanto, 2017). In the context of fraudulent financial reporting, openness to voluntary disclosure, predominantly intellectual capital, can reduce fraudulent financial reporting behaviour. The intellectual capital component, namely the relationship model, forms a good relationship between management and stakeholders, and this makes management think that when there is fraudulent financial reporting, it can destroy the company's image as well as the integrity or reputation of the management (Shahwan& Habib, 2020). Intellectual capital is a governance mechanism in which human capital (knowledgeable employees), structural capital (databases, organizational structures, manuals, strategies, and policies), and relational capital (good relations between external parties such as auditors and internal parties) such as management) will prevent fraudulent financial reporting. In addition, the development of intellectual capital can create value-added, which increases company profits and prevents pressure factors for financial statement fraud (Ahmad & Imam, 2016).

Intellectual capital is one of the most influential factors in preventing fraudulent financial statements from the perspective of the fraud triangle. Based on Cressey (1973), the fraud triangle consists of 3 components: opportunity, pressure, and rationalization. Intellectual capital significantly impacts all three factors: First, based on financial performance, intellectual capital can increase profits and relieve the company's financial pressure. Previous research has explained that disclosing intellectual capital in an entity's annual report can improve the company's financial performance and stock returns (Oppong et al., 2019). Therefore, intellectual capital can reduce the occurrence of financial statement fraud.

Second, based on corporate governance, intellectual capital is substantially linked to the internal governance system and limits opportunities for fraud. Research on the effect of intellectual capital on corporate governance shows the positive impact of intellectual capital on corporate governance mechanisms (Tran et al., 2020). One of the components of intellectual capital is structural capital (SC), which includes all "non-human assets" such as databases, organizational structures, manuals, strategies, policies, and other items whose value is more significant than material value (Bontis et al., 2000). In addition, the intellectual capital component can significantly increase the effectiveness of corporate governance mechanisms (Shahwan& Habib, 2020). Companies with high intellectual capital will employ high-quality auditors. High audit quality also prevents financial statement fraud (Naslmosavi& Jahanzeb, 2016).

Third, based on rationalization factors, Cressey (1953) implies that specific ideas allow managers to validate and direct fraudulent behaviour. Therefore, the tendency to exhibit fraudulent behaviour depends on the moral code and personal traits (Lotfi et al., 2022). This relational capital relationship refers to a solid ethical relationship between companies and their customers; ethical companies can reduce managers' intentions to commit fraud. In other words, companies can form intellectual capital if they have managers responsible for improving good relations between internal and external parties (Shahwan& Habib, 2020). Therefore, intellectual capital components such as human and relational capital can prevent managers from engaging in financial statement fraud, especially when such involvement can significantly damage a company's image in front of its customers and employees. Based on the explanation and several previous studies above, the following hypotheses will be proposed:

Hypothesis 1: Intellectual capital has a negative effect on financial statement fraud

### **2.3.2 Intellectual Capital against Financial Distress**

Based on agency theory, intellectual capital also has a vital role in preventing financial distress. One of the managers' strategies is to increase the company's intellectual capital to improve performance (Ousama, 2019; Uslu, 2020) and prevent financial distress from occurring (Shahwan& Habib, 2020). If intellectual capital is increased, the company can manifest value added which brings unique characteristics to the company (Noviani et al., 2022). Companies can maintain their competitive advantage and competitiveness by improving their performance systems.

Referring to research (Budiarti, 2020; Mustika et al., 2018; Noviani et al., 2022; Shahwan& Habib, 2020), intellectual capital positively influences company performance. One example is that good HR management will increase employee productivity, and it is hoped that it will also increase company profits, leading to good assessment from stakeholders. However, if intellectual capital management is terrible, the company's performance can be considered harmful or will decrease, and this decrease in performance will impact financial distress. Therefore, the hypothesis proposed in this study is as follows:

Hypothesis 2: Intellectual capital has a negative effect on financial distress

### **2.3.3 Financial Distress against Financial Statement fraud**

Based on agency theory which explains that the demands of stakeholders (principals) are to provide maximum benefits and value-added. This encourages management to take several ways, one of which is fraudulent financial reports (Annafi&Yudowati, 2021). This also occurs due to persistently bad financial conditions, namely financial distress. Financial distress is caused by the inability of the company's operating cash to pay off obligations (Aviantara, 2021). Companies tend to act illegally to overhaul financial conditions through financial statement fraud acts.

Companies in a state of financial distress will be affected by financial fraud (Aviantara, 2021). This is in line with research (Annafi&Yudowati, 2021; Tommy & Marietza, 2022; Widharma&Susilowati, 2020) which found a positive relationship between financial distress and financial statement fraud. Stakeholder demands will encourage managers to carry out various methods, such as financial statement fraud. Therefore, the hypothesis proposed in this study is as follows:

Hypothesis 3: Financial distress has a positive effect on financial statement fraud

### **2.3.4 Intellectual Capital on Financial Statement Fraud through Financial Distress**

Agency theory explains that conflicts of interest arise due to information asymmetry between interested parties (Jensen & Meckling, 1976). One way to align goals and equality among interested parties is by utilizing intellectual capital. Intellectual capital is used to manage and regulate the relationship between the two parties to minimize agency costs (Jensen & Meckling, 1976). The purpose of the intellectual capital performance system is to create entity accountability for various interested parties in order to create the best system and minimize agency costs.

Poorly managed intellectual capital can cause financial distress (Md Nasir & Hashim, 2020). Financial distress that arises will spur management to choose financial statement fraud methods (Altman, 2000). Management chose this method because the company's reputation would be maintained well, and the shareholders considered the performance appraisal reasonable. At the same time, attracting creditors to facilitate capital injection into the business (Aviantara, 2021). Poor management of intellectual capital, such as the absence of generally accepted standards, frameworks, and practices, caused the Enron company to go bankrupt, and these conditions led to acts of financial statement fraud (Jay, 2003).

Financial statement fraud also occurs because of management pressure, opportunity, and rationalization of the action. One example is the pressure of demands to maintain the stability of the company's financial condition without optimal monitoring (Irwandi et al., 2019). Research (Lotfi et al., 2022; Salehi et al., 2022) shows a negative relationship between intellectual capital and financial reporting fraud. In addition, there is also a negative relationship between intellectual capital and financial distress (Mustika et al., 2018; Noviani et al., 2022; Shahwan& Habib, 2020). This indicates that the better the intellectual capital, the lower the company will experience financial distress.

The causes of financial statement fraud are the company's poor financial position (financial distress) and intellectual capital performance efficiency that does not work optimally. This study aims to show whether financial statement fraud occurs due to low intellectual capital based on a company's weak financial condition (financial distress). Based on the theoretical study, the resulting formulation of the hypothesis is as follows:

Hypothesis 4: Intellectual capital has a negative effect on financial statement fraud through financial distress.

## **III. RESEARCH METHODS**

### **3.1 Population and sample**

The population in this study are companies in the banking sector listed on the Indonesia Stock Exchange in the 2016 – 2021 time period. The sample in this study is the banking sector listed on the Indonesia

Stock Exchange for 2016 – 2021, which has been audited by the BPK or external auditors and meets specific requirements. Purposive sampling was used as a sampling method with the following criteria:

1. Bank sector companies listed on the Indonesia Stock Exchange which published financial reports as of 31 December 2016-2021.
2. Company financial information is available.
3. Are active during the period of the study.

### 3.2 Variable Measurement

Financial statement fraud is used as the dependent variable. Financial statement fraud is the intentional omission of financial information not by accounting standards (Albreecht et al., 2015). The variable dependent measurement of financial statement fraud is the Beneish M-Score method. This method is a method for measuring the level of possibility that a company commits financial statement fraud (Beneish, 2012). Financial statement fraud is measured using data in the current year (t) and the previous year (t-1). If the Beneish M-score exceeds -2.22, the financial statements have been manipulated (manipulation). Conversely, if the company's m-score is smaller than -2.22, then the company is not indicated to be manipulating financial statements (non-manipulation). The formulation used to determine the score in the Beneish M-score model is as follows:

$$\text{M-Score} = -4.84 + (0.92 \times \text{DSRI}) + (0.528 \times \text{GMI}) + (0.404 \times \text{AQI}) + (0.892 \times \text{SGI}) + (0.115 \times \text{DEPI}) + (-0.172 \times \text{SGAI}) + (4.679 \times \text{TATA}) + (-0.327 \times \text{LVGI})$$

Intellectual capital is an intangible asset that includes learning, abilities, human resources, management knowledge, and relationships with stakeholders (Rupcic, 2019). The independent variable measurement of intellectual capital uses the Pulic model. Lotfi et al., (2010) states that IC measurement cannot be carried out directly but proposes a measure to assess the efficiency of added value as a result of a company's IC capability (Value added Intellectual Coefficient-VAIC) developed by Pulic (2000). The VAIC value can be obtained by adding up the three components: HCE, SCE, and CEE. The formula for calculating is as follows:

$$\text{MVAIC} = \text{HCE} + \text{SCE} + \text{RCE}$$

Phase I: Calculating Value Added (VA) The formula for calculating VA is:

$$\text{VA} = \text{OUT} - \text{IN}$$

$$\text{OUT} = \text{Total revenue}$$

$$\text{IN} = \text{Operating expenses except salaries and employee benefits}$$

Phase II: Calculating the efficiency of Intellectual Capital (ICE) is:

$$\text{MVAIC} = \text{HCE} + \text{SCE} + \text{RCE}$$

$$\text{HCE} = \text{VA}/\text{HC}$$

$$\text{SCE} = \text{SC}/\text{VA}$$

$$\text{RCE} = \text{RC}/\text{VA}$$

In this study, the mediating variable used is the financial distress variable. Financial distress is a condition or condition where the company is experiencing pressure related to unfavourable financial conditions and approaching bankruptcy (Platt & Platt, 2006). The measurement used to test the financial distress variable in this study uses the Altman Z-Score Model (Altman, 2000). Based on these calculations, a dummy variable will be given with the number 1 for companies with a z-score value of 1.81 or less (financial distress) and 0 for companies with a z-score value of more than -1.81 (not financial distress). The formulation of financial distress is as follows:

$$Z = 0,012 X1 + 0,014X2 + 0,033X3 + 0,0006X4 + 0,999 X5$$

$$X1 = \text{Working Capital} / \text{Total Assets}$$

$$X2 = \text{Retained Earnings} / \text{Total Assets}$$

$$X3 = \text{Earnings Before Interest and Taxes} / \text{Total Assets}$$

$$X4 = \text{Market Value of Equity} / \text{Total Liabilities}$$

$$X5 = \text{Sales} / \text{Total Assets}$$

The statistical analysis technique in this study used multiple linear regression. In conducting multiple regression analysis, several steps and analytical tools are needed. Before performing multiple linear regression analysis, a data normality test was performed using the one-sample Kolmogorov Smirnov and classical assumption tests in the form of multicollinearity, autocorrelation, and heteroscedasticity to obtain unbiased results. The test is maintained with a simultaneous significance test (statistic F) and the coefficient of determination (R<sup>2</sup>). Hypothesis testing is done by applying the following regression equation:

$$Y1 = a + \beta_2X1 + e1$$

$$Y2 = a + \beta_1X1 + \beta_3Y1 + e2$$

**IV. RESULTS AND DISCUSSION**

**4.1 Data Collection**

The initial sample obtained was 46 banking companies with 276 observational data. After going through the selection process using the purposive sampling method, selected 64 observation data, and then data analysis and hypothesis testing were carried out. Table 1 is the determination of the sample.

Description	Number of Banks	Period	Number of Samples
Bank sector companies listed on the Indonesia Stock Exchange in 2016-2021.	46	2016-2021	276
Companies that are not included in the classification of manipulative companies and experiencing financial distress	40	2016-2021	(160)
Companies whose financial reports cannot be accessed during 2016-2021	1	2016-2021	(6)
Data outlier	18	2016-2021	(46)
Samples processed in research			<b>64</b>

**Table 1: Population and Sample**

**4.2 Descriptive Data Analysis**

	N	Minimum	Maximum	Mean	Std. Deviation
MVAIC	64	-.28	3.99	1.5806	.98662
Z-SCORE	64	-.20	.90	.3830	.24109
M-SCORE	64	-2.20	.72	-1.3230	.79083
Valid N (listwise)	64				

**Table 2: Descriptive Statistics**

The results of the descriptive statistical test show that the number of data (N) is 64; out of these 64 data, the MVAIC value of the intellectual capital variable Minimum is -0.28, and the Maximum is 3.99. The average MVAIC value of 64 data is 1.5806 with a standard deviation of 0.986. This average value can be interpreted that the companies included in the sample having common performance.

The financial distress variable has a value ranging from -0.20 to 0.90. If seen based on the average Z-Score value, the average value is 0.38. This shows that the average banking company is included in financial distress. In addition, the results of the descriptive statistical test for the financial statement fraud variable have value ranging from -2.20 to 0.70, and the average value is -1.32. This shows that the average banking company can be classified as manipulative.

**4.3 Normality Test**

		Unstandardized Residual
N		64
Normal Parameters <sup>a,b</sup>	Mean	.000000
	Std. Deviation	.22339095
Most Extreme Differences	Absolute	.107
	Positive	.107
	Negative	-.071
Test Statistic		.107
Asymp. Sig. (2-tailed)		.067 <sup>c</sup>

**Table 3: One-Sample Kolmogorov-Smirnov Test**

The normality test listed in table 3 was processed using the one-sample Kolmogorov-Smirnov non-parametric statistical test. The test shows that the value of the Kolmogorov-Smirnov one-sample statistical test is 0.107 and is significant at 0.067. This means that the data is normally distributed.

**4.4 Multicollinearity Test**

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
MVAIC	1.000	1.000

a. Dependent Variable: Z-SCORE

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
MVAIC	.859	1.165
Z-SCORE	.859	1.165

a. Dependent Variable: M-SCORE

**Table 4: Multicollinearity Test**

In this study, to diagnose the existence of multicollinearity in the regression model, to look at the Tolerance and Variance Inflation Factor (VIF) values in table 4. Generally, the threshold value used to diagnose the absence of multicollinearity is a Tolerance value of more than 0.10 and a VIF value  $\leq 10.00$ . Table 4 shows that all the variables used in the study did not occur in multicollinearity because they had a VIF value  $\leq 10.00$  and a tolerance value of more than 0.10.

**4.5 Heteroscedasticity Test**

The Glejser test is used to determine the problem of heteroscedasticity in the regression model of this study. The Glejser test results are shown in table 5.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.581	.151		3.856	.000
	MVAIC	-.020	.064	-.043	-.309	.758
	Z-SCORE	.028	.264	.015	.107	.915

a. Dependent Variable: Abs\_Res1

**Table 5: Heteroscedasticity Test**

After the regression of the residual absolute value of the independent variables, the results show that all variables have a significance value exceeding the value limit of 0.050. We can be sure that the regression model does not show heteroscedasticity.

**4.6 Hypothesis Testing**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.183	.069		2.657	.005
	MVAIC	-.092	.029	-.376	-3.196	.002

a. Dependent Variable: Z-SCORE

**Table 6: The results of the t-test different test simple linear regression model**

On the results of the t test, the regression equation can be formulated as follows:

$$Y_1 = a + b_1X_1 + e$$

$$Y_1 = 1.183 - 0.92X_1$$

The regression equation above means that the coefficient value on the intellectual capital variable is - 0.092 with a negative influence. These results indicate that if intellectual capital decreases by 1%, financial distress will increase by 0.092%.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.285	1.258		-.497	.832
	MVAIC	-.024	.011	-.029	-2.213	.032
	Z-SCORE	.234	.452	.071	3.518	.006

a. Dependent Variable: M-SCORE

**Table 7: The results of the t-test different test multiple linear regression model**

On the results of the t test, the regression equation can be formulated as follows:

$$Y_2 = a + b_1X + b_2Y_2 + e$$

$$Y_2 = 0.285 - 0.024X + 0.234Y_1$$

The regression equation above can be interpreted that the coefficient value on the intellectual capital variable is obtained at (-0.024) with a negative influence direction. These results indicate that if intellectual capital increases by 1%, fraudulent financial statements will decrease by 0.024%. The coefficient value on the financial distress variable is obtained at (0.234) in a positive direction. These results indicate that if financial distress increases by 1%, fraudulent financial statements will increase by 0.234%.

**4.7 F test**



Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.518	1	.518	10.212	.002 <sup>b</sup>
	Residual	3.144	62	.051		
	Total	3.662	63			

- a. Dependent Variable: Z-SCORE
- b. Predictors: (Constant), MVAIC

**Table 8: The results of the F-test simple linear regression model**

The simultaneous test (F test) results on the simple regression model obtained a F-count of 10.212 with a significance probability value of 0.002. Because the significance value is less than 0.05, the intellectual capital variable simultaneously significantly affects the occurrence of financial distress.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.173	2	1.087	13.135	.000 <sup>b</sup>
	Residual	5.228	61	.643		
	Total	8.401	63			

- a. Dependent Variable: M-SCORE
- b. Predictors: (Constant), Z-SCORE, MVAIC

**Table 9: The results of the F-test multiple linear regression model**

The simultaneous test (F test) results on the multiple regression model obtained a F-count of 13.135 with a significance probability value of 0.000. Because the significance value is less than 0.05, the intellectual capital and financial distress variables simultaneously significantly affect the occurrence of financial statement fraud.

**4.8 Coefficient of Determination**

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.376 <sup>a</sup>	.141	.128	.22519

- a. Predictors: (Constant), MVAIC

**Table 10: The results of Coefficient Determination simple linear regression model**

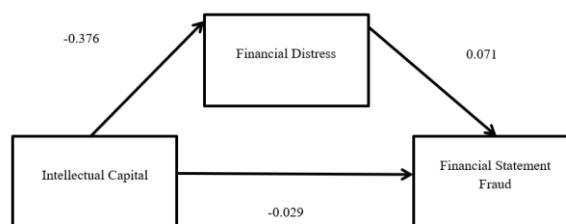
The test of the coefficient of determination (R2) in the simple regression model obtained an R-Square value of 0.141. This means that the financial distress variable can be explained by an intellectual model of 14.1%, while other variables outside the regression equation or other factors influence the remaining 95.9%.

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.566 <sup>a</sup>	.355	.328	.32192

- a. Predictors: (Constant), Z-SCORE, MVAIC

**Table 11: The results of Coefficient Determination multiple linear regression model**

Testing the coefficient of determination (R2) in the simple regression model obtained an R-Square value of 0.355. This means that the financial statement fraud variable can be explained by the intellectual capital and financial distress variables of 35.5%. In comparison, the remaining 64.5% is influenced by other variables outside the regression equation or other factors. The results of direct and indirect testing can be seen in Figure 2 as follows:



Direct Relationship= - 0.029

Indirect Relationship= -0.376 x 0.071 = -0.026

**Figure 2: Path Analysis**

The figure shows the results of the mediation test, where the results obtained were a direct effect of (-0.029). These calculations show that the direct effect is smaller than the indirect effect, equal to (-0.026). In connection with this, it can be concluded that financial distress indirectly mediates the relationship between intellectual capital and financial statement fraud.

Hypothesis	β	Sig
Intellectual capital has a negative effect on financial statement fraud	-2.213	.032

Intellectual capital has a negative effect on financial distress	-3.196	.002
Financial distress has a positive effect on financial statement fraud	3.518	.006
Intellectual capital against financial statement fraud through financial distress	-0,026	.004

**4.9 Discussion**

Based on the results of research that has been done that intellectual capital can reduce financial statement fraud, this is in line with the research of Lotfi et al. (2022) and Shahwan& Habib, (2020). When associated with the fraud triangle theory, intellectual capital can reduce and prevent financial statement fraud related to the fraud triangle. First, intellectual capital can increase profits based on financial performance and relieve the company's financial pressure. Previous research has explained that disclosing intellectual capital in an entity's annual report can improve the company's financial performance and stock returns (Oppong et al., 2019). Therefore, intellectual capital can reduce the occurrence of fraudulent financial statements. Second, based on corporate governance, intellectual capital is substantially linked to the internal governance system and limits opportunities for fraud. Research on the effect of intellectual capital on corporate governance shows the positive impact of intellectual capital on corporate governance mechanisms (Tran et al., 2020). Third, based on rationalization factors, according to Cressey (1953), implies that specific ideas allow managers to validate and direct fraudulent behaviour. Therefore, the tendency to exhibit fraudulent behaviour depends on the moral code and personal traits (Lotfi et al., 2022). This relational capital relationship refers to a solid ethical relationship between companies and their customers; ethical companies can reduce managers' intentions to commit fraud. In other words, companies can form intellectual capital if they have managers responsible for improving good relations between internal and external parties (Shahwan& Habib, 2020). According to agency theory, disclosure of intellectual capital is an effective form of voluntary disclosure to prevent agency problems and the emergence of fraudulent financial statements (Hafza&Purwanto, 2017). In the context of fraudulent financial statements, openness to voluntary disclosure, especially intellectual capital, can reduce fraudulent financial reporting behaviour.

In addition, this study also found that intellectual capital can reduce the occurrence of financial distress. When associated with agency theory, increasing a company's intellectual capital is a management strategy to improve performance (Ousama, 2019; Uslu, 2020) and prevent financial distress from occurring (Shahwan& Habib, 2020). If intellectual capital is increased, the company can manifest value added which brings unique characteristics to the company (Noviani et al., 2022). Companies can maintain their competitive advantage and competitiveness by improving their performance systems. Referring to research (Budiarti, 2020; Mustika et al., 2018; Noviani et al., 2022; Shahwan& Habib, 2020), intellectual capital positively influences company performance. One example is that good HR management will increase employee productivity, and it is hoped that it will also increase company profits, leading to good assessment from stakeholders.

The third and fourth hypothesis test was conducted to prove whether financial distress mediates the relationship between intellectual capital and financial reporting fraud. The findings show that the mediating variable has a significant effect. Then the third and fourth hypotheses can be supported. This research supports the research of Annafi&Yudowati (2021), which states that the demands of stakeholders (principals) are to provide maximum benefits and value-added. This encourages management to take several ways, one of which is fraudulent financial reporting. This also happens due to continuing financial conditions. Continuously dire, namely financial distress. The results of this study are also consistent with Avaintara's research (2021) which states that companies in a state of financial distress will influence the occurrence of financial fraud.

**V. CONCLUSION**

This study aims to examine and analyze the effect of intellectual capital and fraudulent financial statements with financial distress as a mediating variable. Banking sector companies listed on the Indonesia Stock Exchange (IDX) from 2016-2021 were successively the samples used in this study. Based on the results of the research and discussion in the previous chapter, it can be concluded that intellectual capital has a negative effect on financial statement fraud, Intellectual capital has a negative effect on financial distress, financial distress has a positive effect on financial statement fraud, and financial distress mediates the relationship between intellectual capital and financial statement fraud.

The limitations of this research are that it is a limited study using a sample of companies in the banking sector to illustrate the performance of intellectual capital in Indonesia. From the aspect of intellectual capital components, this research is limited to only three components of intellectual capital that are used. For the development of further research, the suggestions from researchers are that future research is expected to be able to expand the sample of companies from various industrial sectors in Indonesia and the aspect of the intellectual

capital component; further research can use other intellectual capital components such as organizational capital and customer capital.

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