Determinants Of Financial Shenanigans Indications During The Covid-19 Pandemic

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Abstract: This research aims to determine determinants of financial shenanigans and the differences in indications of the occurrence of financial shenanigans before and during the Covid-19 pandemic. Data of manufacturing industry listed on the Indonesia Stock Exchange (IDX) during 2019-2020 analyzed using descriptive statistical and logistic regression. The results show that financial targets, characteristics of the chief financial officer, and financial stability were simultaneously determinants of financial shenanigans. Partially, financial targets were the only determinants of financial shenanigans and no significant differences in indications of financial shenanigans before and during the Covid-19. Results of this study can be utilized by external auditors in detecting indications of financial fraud through changes in financial targets and can be an inform for investment decisions. Future study should consider continuing testing variables that do not have an effect by bringing up other calculation indicators and extend the time span either sample to predict financial shenanigans.

Keywords: CFO Characteristics, Covid-19 Pandemic, Financial Shenanigans, Financial Stability, Financial Target.

Abstrak: Penelitian ini bertujuan untuk mengetahui determinan financial shenanigans dan perbedaan indikasi terjadinya financial shenanigans sebelum dan saat masa pandemi Covid-19. Data industri manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) selama 2019-2020 dianalisis menggunakan statistik deskriptif dan regresi logistik. Hasil penelitian menunjukkan bahwa target keuangan, karakteristik chief financial officer, dan stabilitas keuangan secara bersamaan merupakan penentu kejahatan keuangan. Secara parsial, target keuangan adalah satu-satunya penentu financial shenanigans dan tidak ada perbedaan signifikan dalam indikasi financial shenanigans sebelum dan saat Covid-19. Hasil penelitian ini dapat dimanfaatkan oleh auditor eksternal dalam mendeteksi indikasi financial shenanigans melalui perubahan target keuangan dan dapat menjadi bahan pertimbangan dalam pengambilan keputusan investasi. Studi masa depan perlu mempertimbangkan melanjutkan pengujuan variabel yang tidak berpengaruh dengan memunculkan indikator perhitungan lain dan memperpanjang rentang waktu baik sampel untuk memprediksi financial shenanigans.

Kata kunci: Karakteristik CFO, Pandemi Covid-19, Financial Shenanigans, Stabilitas Keuangan, Target Keuangan.
INTRODUCTION

Financial shenanigans are a type of fraud committed by management in order to manipulate the company's financial performance (Hasan et al., 2017). Fraud is defined as deliberate conduct that results in a major misrepresentation of a company's financial statements. This activity is conducted by management or personnel in charge of keeping records in the organisation to achieve unwarranted economic benefits or advantages (Tkachenko et al., 2020).

The Association of Certified Fraud Examiners (ACFE) discovered that companies' financial statements that are supposed to provide their users with reliable, relevant, comparable, and understandable information were presented inappropriately due to reporting fraud committed by internal companies (Association of Certified Fraud Examiners, 2020).

The outbreak of the Covid-19 virus in the first quarter of 2020 impacted economic instability for various business sectors in Indonesia (Zhu et al., 2021). In pandemic conditions like this, one of the things to watch out for is the concealment or dissemination of the company's financial statements by management to maintain investor confidence so that the company remains in difficult conditions today (Cevdet Kızıl et al., 2021). Financial statements provide accounting information for business decision making, so it needs to be free from material misstatements. Nevertheless, material misstatements in financial statements due to financial shenanigans are still difficult to avoid. Especially during the Covid-19 pandemic, shenanigans have the potential to increase in companies due to pressure to achieve financial targets in falling economic conditions and the opportunity for fraud during remote working (Bresslin, 2021).

Financial shenanigans cases that have occurred, namely, (1) reported to the nation by the Association of Certified Fraud Examiners (2020), which found that cases of shenanigans in financial statements caused the highest level of loss compared to other shenanigans schemes amounting to the US $ 954,000 and (2) companies that conduct restatements proved to have the potential to do shenanigans and the announcement of restatements provided important information to detect indications of the lack of reports (BenYoussef and Khan, 2017; Qiu et al., 2019). Data of manufacturing companies that went public on the Indonesia Stock Exchange (IDX) conducted a 2 percent financial statement restatement during the Covid-19 pandemic in 2020. Although during the Covid-19 pandemic, the number of companies that restatement financial statements are relatively not much, nevertheless the restatement of financial statements shows that previous accounting information is indicated to be lacking in quality and has the potential to mislead its users.

The condition of the Covid-19 pandemic impacts the emergence of indications of unethical managers' opportunistic attitudes to improve the appearance of the company's good financial position (Albitar et al., 2021). The act of beautifying financial statements can harm the company's reputation and interfere with the company's business continuity in maintaining financial stability and making profits through fraudulent actions, so that the level of public confidence, especially among investors, will decrease (Luo et al., 2020).

In determining the amount of profit level to be achieved, the company can be referred to as a financial target (Suh et al., 2019; Krismantara and Kamayanti, 2021). When the financial target is successfully achieved, then the management will get an incentive bonus,
but if the financial target is not achieved, it becomes a pressure for management. This can trigger the act of financial statement fraud carried out by management, who are part of the agency's problem. The greater the financial target, the greater the potential of management to do financial shenanigans.

The second factor is that decision-making by CFO is influenced by beliefs formed from individual demographic characteristics per financial services authority regulation No. 75/Pojk.04/2017, where the board of directors has responsibility for the correctness of financial statements as evidenced by the board of directors' reports that have been signed (Chairman of the Board of Commissioners of the Financial Services Authority, 2017; Sandhu, 2020). The regulation explains that the Chief Financial Officer (CFO) is directly responsible for accounting and finance by not misleading users of financial statements.

The third factor, financial stability, becomes one of the potential factors in shenanigans. If the company's economic, industrial, or operating conditions are unstable, then there is financial instability that puts pressure on management to form various strategies in maintaining financial stability conditions (Skousen et al., 2009; Salim et al., 2021).

Some gaps in previous research, namely research conducted by (Rengganis et al., 2019), found that the company's financial targets as measured by Return on Assets (ROA) had a positive influence on financial shenanigans because of the high financial targets that triggered management to have incentives to make various efforts to achieve these targets while according to (Umar et al., 2020) high or low financial targets of companies did not cause incentives fraud committed by management.

(Capezio and Mavisakalyan, 2016) found that boards of directors with smaller female representations have the potential to do financial shenanigans because of a higher conservative attitude than boards with male representation. However, (Liao et al., 2019) found that the representation of men or women in chief financial officers had no association with the potential occurrence of financial shenanigans.

(Ozcelik’s, 2020) on his research showed that financial stability has a significant influence on financial shenanigans because the company's financial condition is threatened in the year and causes management to take action to describe stable financial conditions by manipulating financial statements. On the other hand, (Ufrida Rahmi et al., 2021) found that the level of financial stability of the company did not affect management's attitude toward performing shenanigans on financial statements.

Based on the background above, there are still inconsistencies related to financial shenanigans research. This research has a novelty about the difference in the number of indications of financial shenanigans before the Covid-19 pandemic. Therefore, research on what determinants affected financial shenanigans in manufacturing sector companies before the Covid-19 pandemic (2019) and during the Covid-19 pandemic (2020) is still relevant.

THEORITICAL REVIEW

Agency Theory. The delegation of authority from the authorizing authority (principal) to the recipient of the authority (agent) in managing the company is explained by agency theory, but it is possible that the agent does not act in the best interests of the principal (Anindya and Adhariani, 2019). These conditions give rise to conflicts of interest due to
the separation of powers. Agents with authority to run the company, especially regarding management, follow the maximisation of their interests.

The separation of ownership (principal) and control (manager) may result in a conflict of interest if it is assumed to seek self-interest simultaneously, and agency theory explains that the principal cannot perfectly observe the agent's behaviour (Ghafoor et al., 2019). Agents will be less responsible for protecting the principal's assets, lose efficiency in their work at the expense of the principal's interests, and their behaviour can be more self-interested due to information asymmetry, enough that principals tend to have less trust in their agents (Laird and Bailey, 2016; Singh et al., 2019).

Managers are expected to run the company in the best interests of the company. Managers, on the other hand, have more information about the company's activities and, due to competing interests, may conflict with the interests of the owners. Managers who are unethical or self-serving may engage in unlawful or fraudulent acts to boost their own fortune at the expense of the firm. (Esmaili Kia et al., 2019; Ali, 2020).

Agents can use this condition to distinguish between information that has to be presented to the principal and information that does not need to be conveyed for a specific purpose. Because the information given is inadequate, investors as principals will have trouble properly controlling management activity. This disparity in the interests of the principal and agent has the potential to create agency issues, which serve as the foundation for management acting as an agent to carry out financial shenanigans in order to improve financial statements.

**Financial Target and Financial Shenanigans.** High financial targets have the potential of causing management to engage in financial shenanigans in order to demonstrate good corporate performance (Fitri et al., 2019; Devi et al., 2021; Demetriades and Owusu-Agyeim, 2022). Consequently, the higher the company's financial target, the more pressure management will face, forcing management to commit fraud (Ramírez-Orellana et al., 2017).

Fulfilling requirements of good performance has an impact on managers' morale when under pressure. This is consistent with the findings of (Rengganis et al., 2019), who discovered that a company's high financial target causes an increase in financial shenanigans to risk by management, implying that financial shenanigans throughout the company's financial statements all had the contribute to an increase if the company's financial target level is high. Nevertheless, this study hypothesises that:

\[ H_1: \text{The financial target is indeed a positive determinant of financial shenanigans in industries in the manufacturing sector.} \]

**Characteristics of Chief Financial Officer and Financial Shenanigans.** Female executives are less likely to have engaged in fraudulent financial statements, but male executives are more likely to be engaged (Sun et al., 2019). This assertion is supported by (Majidah and Muslih, 2019) research findings, which found that women tend to avoid risks and be more meticulous, implying that these activities are conducted as a type of long-term orientation thinking.
Female chief financial officers tend to be highly conservative and risk-averse in order to avoid unethical behaviour such as financial tricks (Khelif and Achek, 2017; Majidah and Muslih, 2019). As a result, female representative chief financial officers are more likely to generate financial reports that are completely safe from fraud. Therefore, the following, hypothesis is formed.

**H$_2$:** Characteristics of the Chief Financial Officer (CFO) are indeed a negative determinant of financial shenanigans in industries in the manufacturing sector.

**Financial Stability and Financial Shenanigans.** When a company's stability is disregarded and affected by economic and/or industrial challenges, financial stability puts pressure on managers to commit fraud (Hou et al., 2021). Companies utilise various methods to present a positive image in financial accounts, one of which is manipulating asset information (Rustiarini et al., 2019; Utami et al., 2019; Umar et al., 2020).

More enormous changes in the total assets owned by the company have an impact on the high shenanigan's actions in the financial statements, which is consistent with the findings of (Salim et al., 2021), who discovered that when there is a significant increase of ACHANGE in the company, the risk of financial shenanigans increases.

Based on these arguments, this study hypothesises that:

**H$_3$:** The financial stability is indeed a positive determinant of financial shenanigans in industries in the manufacturing sector.

**Financial Shenanigans Before and During Covid-19 Pandemic.** On April 13, 2020, the Covid-19 pandemic in Indonesia was declared a national calamity. According to Law Number 24 of 2007, disasters are occurrences caused by natural or non-natural elements that interfere with people's lives, resulting in human casualties, natural damage, and losses. from physical to psychological influence.

The Center of Reform on Economics (CORE) discovered that Covid-19 patients in Indonesia had a high death rate; thus, the government and society worked to lower this by closing schools, working/schooling from home, and postponing and cancelling company events. The economic cycle has slowed as a result of these preventative initiatives (Choi, 2020; Iyer and Simkins, 2022).

Life and economic activities have been disrupted due to the Covid-19 pandemic, creating unfavourable conditions for global economies (Bresslin, 2021). Economic conditions during the Covid-19 pandemic were poor because of a drop in people's purchasing capacity relative to pre-pandemic levels (Deloitte, 2020b).

(Deloitte, 2020) forensic accounting investigation discovered that during Covid-19, financial shenanigans were more vulnerable than before the pandemic due to the company's falling degree of financial soundness. As a result of disparities in economic situations previous to the Covid-19 pandemic, the Covid-19 pandemic may enhance financial shenanigans.

**H$_4$:** There are differences in the number of financial shenanigans indications for industrial sector companies listed on the Indonesia Stock Exchange (IDX) before and during the 2019 Covid-19 pandemic.
The following research model (Figure 1) is established based on the previous studies and hypotheses constructed.

![Research Model Diagram](image)

**Figure 1. Research Model**

**METHODS**

**Population and Sample.** The population of this study is the manufacturing industry listed on the Indonesia Stock Exchange in 2019-2020. The manufacturing industry is one of the driving industries of the Indonesian economy, which consists of several sectors, namely the consumer goods sector, basic and chemical sectors, and various industries. The research data is a sample with several criteria, namely: (1) manufacturing industry companies listed on the Indonesia Stock Exchange (IDX) before and during the Covid-19 pandemic in 2019-2020 except pharmaceutical and chemical companies, (2) manufacturing sector companies that publish financial reports and annual reports with data that meet the needs of this research variable and (3) use the IDR currency in the financial statements. The reason for not including pharmaceutical and chemical companies as part of the research sample is because these companies have had a positive impact on pandemic conditions due to the increasing demand for drugs and other supplement products (Ostwald et al., 2020; Yu et al., 2020). The research sample was 49 companies, or 98 research data based on the sample criteria.

**Operationalisation of Variables**

**Dependent Variable.** Financial shenanigans can generally be detected using the Beneish M-Score (Salim et al., 2021), F-Score (Sakti et al., 2020), Altman Z-Score (Bhavani & Amponsah, 2017) and discretionary accruals (Ines, 2017). This study uses the F-Score as an indicator in detecting financial shenanigans following (Sakti et al., 2020) statement,
which states that the F-Score method is superior to other methods in detecting financial shenanigans.

The Fraud Score Model (F-Score) divides the level of financial statement manipulation into the two major categories: F-Score 1 indicates that there is no fraud in the financial statements, and F-Score 1 indicates that there is fraud in the financial statements (Hakami et al., 2020; Ratmono et al., 2020). The accrual quality and financial performance are added together to generate the fraud score model (Harris et al., 2018). The following equation describes the formula in this model:

\[
F{-}\text{Score} = \text{Accrual Quality} + \text{Financial Performance} 
\]

Accrual quality is the quality of accounting information in financial statements determined by comparing the accrual value with the company’s cash flows from the previous to the current period (Harris et al., 2018; Papík and Papíková, 2022). RSST accrual is used as a proxy for accrual quality by calculating non-cash and non-equity changes in the company’s balance sheet and differentiating the characteristics of working capital (WC), non-current operating (NCO), and financial accruals (FIN), as well as other substances such as assets and liabilities that have accumulated (Ratmono et al., 2020).

\[
\text{RSST Accrual} = \frac{(\Delta \text{WC} + \Delta \text{NCO} + \Delta \text{FIN})}{\text{Average Total Assets}} \tag{2} 
\]

Explanation:
Working Capital (WC) = current assets – current liability
Non-Current Operating Accrual (NCO) = (total assets – current assets – investment advance) – (total liabilities – current liabilities – long term debt)
Financial Accrual (FIN) = total investment – total liabilities
Average Total Assets (ATS) = (beginning total assets + end total assets)/2

Financial performance is calculated through changes to the inventory account, changes to accounts receivable, changes to cash sales accounts, and changes to earnings after tax (EAT) which can be formulated through the following equation (Almerai, 2021).

\[
\text{Financial performance} = \text{change in receivable} + \text{change in inventories} + \text{change in cash sales} + \text{change in earnings} 
\]

Explanation:
Change in Receivables = \frac{\Delta \text{Receivables}}{\text{Average Total Assets}}
Change in Inventories = \frac{\Delta \text{Inventories}}{\text{Average Total Assets}}
Change in Cash Sales = \frac{\Delta \text{Sales} - \Delta \text{Receivables}}{\text{Sales}(t) - \text{Receivable}(t)}
Change in Earnings = \frac{\Delta \text{Earnings} - \text{Earnings}(t-1)}{\text{Average Total Assets}(t) - \text{Average Total Assets}(t-1)}
Independent Variable. The financial target illustrates the company's operational contribution to generating profits. Financial targets will shape a manager's behaviour motivated by the implementation of liabilities and the best potential performance of the organisation in order for it to attain a high degree of performance (Rengganis et al., 2019).

Investors' high expectations for outstanding corporate performance put pressure on management to fulfil high financial targets, providing an incentive to manipulate profits to achieve such targets (Devi et al., 2021). Return on Total Assets (ROA) is used as an indicator in this research to illustrate how efficient the company is in utilising assets to create company profits (Rengganis et al., 2019).

\[
\text{ROA} = \frac{\text{Earning After Tax}}{\text{Total asset}} \tag{4}
\]

The chief financial officer's characteristics are a person's demographic form in gender, age, and education level, which can impact judgments in the company's financial policies (Sun et al., 2019). (Majidah and Muslih, 2019) explain moral growth, moral sensitivity, and risk-taking tendencies in their study because gender variations lead to distinct attitudes toward self-control.

Female chief financial officers (CFOs) are less prone to commit financial fraud because they have strong incentives to avoid accounting infractions and are more conservative in establishing financial policies than male CFOs (Liao et al., 2019). In this research, the characteristics of the chief financial officer were focused on the gender of the chief financial officer using a dummy scale indicator, that is, female CFO equal to one and male CFO equal to zero.

Financial stability is one of the factors that put pressure on managers to engage in deception in order to describe a steady or healthy financial situation (Chawla and Mishra, 2016). When economic conditions threaten financial stability or corporate profitability, industry, or the situation of operational entities, and unstable financial conditions, managers are under pressure to commit fraudulent activities in financial statements (Harman and Bernawati, 2021).

Because the form of fraud in the financial accounts can be associated with firm assets' growth, financial stability can be proxied by the percentage change in total assets (ACHANGE). The bigger the ratio of changes in the company's total assets, the greater the possibility of financial statement manipulations (Utami et al., 2019).

\[
\text{ACHANGE} = \frac{\text{Total assets}_{(t)} - \text{Total assets}_{(t-1)}}{\text{Total assets}_{(t)}} \tag{5}
\]

Logistic Regression Analysis. This study uses descriptive statistics to provide an overview of information about the characteristics of the research variables. Using the ratio scale, the financial target variable and financial stability will use descriptive statistics of the minimum value, maximum value, mean, and standard deviation. In contrast, the financial shenanigans and chief financial officer characteristics use a nominal scale which is grouped categorically.

To determine the effect between variables, regression analysis can be used by testing whether the profitability of the occurrence of the dependent variable can be predicted with the independent variables. Non-metric variables or dichotomies are the
reasons for using logistic regression so that the normality test and classical assumption tests are not carried out again on the independent variables (Ghozali, 2018). In this study, the logistic regression analysis model used is as follows:

\[
\text{LN}\frac{\text{fraud}}{1-\text{fraud}} = \alpha + \beta_1 \text{FT} + \beta_2 \text{CCFO} + \beta_3 \text{FS} + \varepsilon \tag{6}
\]

Explanation:

- **Fraud**: Financial shenanigans
- **\( \alpha \)**: Constant
- **\( \beta_1 \)**: Financial target variable regression coefficient
- **FT**: Financial Target (proxied by ROA)
- **\( \beta_2 \)**: Regression coefficient of chief financial officer characteristic variable
- **CCFO**: Chief financial officer Characteristic (proxied by dummy scale gender)
- **\( \beta_3 \)**: Financial stability variable regression coefficient
- **FS**: Financial stability (proxied by ACHANGE)
- **\( \varepsilon \)**: Standard error

**RESULTS**

**Descriptive Analysis.** The observation data collected was 98 data consisting of 49 manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2020 period and analyzed descriptively. The variables of this study consist of three independent variables, which are the financial target, the characteristics of the chief financial officer, financial stability, and the dependent variable financial shenanigans. Descriptive statistical analysis consists of two scales, namely (1) nominal-scale variables in the form of a categorical and dichotomous grouping of data and (2) ratio-scale variables using the mean, median, mode and standard deviation.

**Descriptive Statistical Analysis on Nominal Scale Variables.** The nominal-scale variables in this study consist of financial shenanigans as dependent variables, and the characteristics of the chief financial officer as independent variables. The description of the variable describes the frequency and presentation, so that the results of the descriptive statistical analysis of nominal-scale variables are as follows.

| Variable | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------|-----------|---------|---------------|--------------------|
| Valid    | NON-FRAUD | 94      | 95.900        | 95.900             |
|          | FRAUD     | 4       | 4.100         | 100.000            |
| Total    |           | 98      | 100.000       |                    |

Table 1 reveals that of the 98 observation data, 4 (4.1 percent) were indicated to engage in financial shenanigans, whereas 94 (95.9 percent) were indicated not to engage in financial shenanigans. According to these findings, most enterprises in the manufacturing sector said that they did not engage in financial shenanigans throughout the research year.
Table 2. Descriptive analysis of the characteristics of the chief financial officer

|        | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|-----------|---------|---------------|--------------------|
| Valid  | MALE      | 78      | 78.600        | 78.600             |
|        | FEMALE    | 20      | 21.400        | 100.000            |
| Total  |           | 98      | 100.000       | 100.000            |

Table 2 shows that the frequency of companies with male chief financial officers is 78 (78.6 percent), while companies with female chief financial officers are only 20 (21.4 percent). The analysis results show that male chief financial officers dominate more than women in manufacturing sector companies.

**Descriptive Statistical Analysis on Ratio-Scaled Variables.** Ratio-scale variables, namely financial targets, and financial stability are analyzed based on minimum, maximum, average, and standard deviation values. The descriptive statistical results of the ratio scale are as follows.

Table 3. Descriptive analysis of financial targets and financial stability

|        | N  | Minimum | Maximum | Mean   | Std. Deviation |
|--------|----|---------|---------|--------|----------------|
| FTarget| 98 | 0-0.150 | 0.610   | 0.0442 | 0.119          |
| FStability| 98 | 0-0.270 | 0.840   | -0.0489| 0.964          |
| Valid N (listwise) | 98 |         |         |        |                |

ROA measures financial targets. The average value (mean) of the financial target of manufacturing companies is 0.044, which is smaller than the standard deviation of 0.1198. This shows that the distribution of financial target data tends to vary. Return on Assets used as a proxy for financial targets is dominated by values below the average (60 data or 61.22 percent), indicating that most companies do not carry out financial targets because they do not use assets properly to earn profits.

The minimum value is -0.15, which is owned by HDTX in 2019 because the company cannot use its assets to generate profit. Meanwhile, the maximum value (highest) is 0.61 by AISA in 2019, because the company could use its assets to earn a profit.

The average value (mean) of financial stability in manufacturing companies is -0.0489, smaller than the standard deviation value of 0.96467, indicating that the distribution of financial stability data varies. ACHANGE, as a proxy for financial stability, is dominated by companies above the average (92 data or 93.88 percent), indicating that most companies perform financial stability.

The minimum (lowest) value is -0.27 owned by JAPFA in 2020 because total assets have decreased compared to 2019, while the maximum (highest) value is 0.84 by CLEO in 2020 because the company's total assets increased in 2020 compared to 2019.
Model Summary. Shows the value of Nagelkerke R Square in the coefficient of determination test is used to identify the magnitude of the combination between independent variables consisting of financial targets, characteristics of the chief financial officer, and financial stability that describes the dependent variables of financial shenanigans.

Table 4. Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|------|-------------------|----------------------|---------------------|
| 1    | 17.264a           | 0.152                | 0.526               |

Based on the test results in table 4, the Nagelkerke R Square value is 0.526, which means that the combination of financial target variables, characteristics of the chief financial officer, and financial stability can explain the variation of the dependent variable, namely financial shenanigans by 52.6 percent, so 47.4 percent is explained by other determinants that not included in this study.

Simultaneous Test Results. The Simultaneous Test (omnibus test of model coefficients) is a test carried out to determine independent variables consisting of financial targets, characteristics of the chief financial officer, and financial stability is a determinant of dependent variables, namely financial shenanigans.

Table 5. Omnibus Tests of Model Coefficients

| Step | Chi-square  | df  | Sig.  |
|------|-------------|-----|-------|
| Step | 16.160      | 3   | 0.001 |
| Block| 16.160      | 3   | 0.001 |
| Model| 16.160      | 3   | 0.001 |

Table 5 shows the value of chi-square is 16.160, degree of freedom is 3 and significance level is below 0.05 which is .001. Thus, financial target, chief financial officer characteristics, and financial stability are simultaneously determinants of financial shenanigans.

Partial Test Results. Partial testing describes the partial determination of each independent variable consisting of financial targets, characteristics of the chief financial officer, and financial stability towards financial shenanigans.
Table 6. Variables in the Equation

| Step  | Variable      | B      | S.E.  | Wald  | df  | Sig. |
|-------|---------------|--------|-------|-------|-----|------|
| 1°    | FTarget       | 14.148 | 5.854 | 5.841 | 1   | 0.016|
| FStability | -1.626 | 1.512 | 1.156 | 1   | 0.282|
| Constant | -5.397 | 1.374 | 15.417 | 1 | 0.000|

The results from table 6 form the following equation.

\[
\ln_{\text{fraud}} \frac{\text{1-fraud}}{\text{1-fraud}} = -5.397 + 14.148TK + (-1.626)\text{KCFO} + (0.533)\text{FS} \quad \ldots \ldots \ldots \ldots \ldots (7)
\]

Table 6 shows the results of the partial test results which are, the constant value (\(\alpha\)) is -5.397 with a significance level 0.000 which is below 0.05; it is assumed that the independent variable is constant or 0 then the financial shenanigans is -5.397. The financial target has coefficient 14.148, and the level significance, which is below 0.05, means that this variable is a positive determinant of financial shenanigans. Chief financial officer characteristics has regression coefficient -1.626, and the level of significance is 0.282 above 0.05, means that the variable is not a negative determinant of financial shenanigans. Financial stability regression coefficient is 0.533, with the level of significance of 0.455 above 0.05, means that the variable is not a positive determinant of financial shenanigans.

**Paired Sample T-Test Results.** The paired sample t-test in this study was used to compare the indications of financial shenanigans before Covid-19 in 2019 with Covid-19 2020. The following table shows the results of paired samples statistics and tests.

Table 7. Paired Samples Statistics

| Pair  | Before_Covid19 | During_Covid19 | Std. Deviation | Std. Error Mean |
|-------|----------------|---------------|----------------|-----------------|
| Mean  | 0.060          | 0.020         | 0.242          | 0.143           |
| N     | 49             | 49            | 0.035          | 0.020           |

Table 7 shows the average (mean) financial shenanigans before Covid-19 of 0.06 with a standard deviation of 0.242. In Covid-19 conditions, the average indication of financial shenanigans is 0.02 with a standard deviation of 0.143. These results show a difference in the mean of low observation data of 0.04 with conditions before Covid-19, higher than during Covid-19.
Table 8. Paired Samples Test

| Pair   | Paired Differences | 95 percent Confidence Interval of the Difference | t     | df | Sig. (2-tailed) |
|--------|--------------------|-----------------------------------------------|-------|----|----------------|
| Mean   | Std. Deviation     | Std. Error Mean                               | Lower | Upper |                 |
| 0.041  | 0.200              | 0.029                                         | -0.017| 0.098| 1.429          |
| Before_Covid19 - During_Covid19 |       |                                               | 48    | 0.159|                |

Table 8 shows that the t-count value is 1.429 below t-table 1.676 with a significance value (Sig.) 0.159 above 0.05, so there is no difference in financial shenanigans in manufacturing companies between before and during Covid-19.

DISCUSSION

Financial Target and Financial Shenanigans. The financial target regression coefficient is 14.148 with a probability level of 0.016 below 0.05, so the financial target is a positive determinant of financial shenanigans. High financial targets lead to indications of high financial shenanigans as well. Companies with high financial targets are indicated to have difficulty fulfilling credit agreements and increasing loans for additional capital so that the demands on managers are higher and encouraged to do financial shenanigans.

The results of this study are in line with the results of research by (Devi et al., 2021), which states that high financial targets cause pressure for managers to manipulate financial statements so that financial performance is good and investor expectations are achieved. The results showed that most financial target observation data as measured by return on assets was not indicated to do financial shenanigans, so there was no relationship between financial targets and indications of financial shenanigans; however, the results of statistical data showed that financial targets had a relationship between financial targets and financial shenanigans as seen from the value of their significance.

Chief Financial Officer Characteristic and Financial Shenanigans. The regression coefficient for chief financial officer characteristics is -1.626 with a significance level of 0.282, greater than 0.05. This study found that the characteristics of the chief financial officer are not a determinant of financial shenanigans. These results indicate that the characteristics of the chief financial officer do not cause financial shenanigans because the level of indication of financial shenanigans in the research sample is low; however, the characteristics of the female chief financial officer in the observation data are not indicated to perform financial shenanigans following the statement of (Majidah and Muslih, 2019) where women tend to be more avoid risk.

This study follows (Khlif and Achek, 2017), who found that the representation of women in the chief financial officer is a negative but not significant determinant in influencing financial shenanigans because gender is not a fully influencing factor in decision making.

Financial Stability and Financial Shenanigans. The financial stability regression coefficient is 0.533, and the level of significance 0.455 greater than 0.05, means this variable is not a determinant of financial shenanigans. Financial stability is not a
determinant of financial shenanigans, indicating that the company does not necessarily carry out financial shenanigans when financial stability is in a low or high position. These results are indicated to occur because the ACHANGE value of fraud and non-fraud observation data tends to be the same in this study.

The research results align with (Ozcelik’s, 2020) statement in his research, where the company's high and low financial stability does not cause managers to carry out financial shenanigans to increase company stability.

**Financial Shenanigans Before Covid-19 and During Covid-19.** The t-count value of the financial shenanigans test before and during Covid-19 is 0.377 below t-table which is 1.658 with a significance value 0.707 greater than 0.050, which means there is no significant difference in financial shenanigans before and during Covid-19.

There is no difference in the financial shenanigans, indicating that the Covid-19 pandemic condition did not fully cause shenanigans. This is possible because, according to (Feng et al., 2022), economic conditions are declining globally, and almost all companies are experiencing the same conditions. Therefore, the pressure to carry out financial shenanigans is not high, given that competitors are in the same condition.

**CONCLUSIONS**

This study sheds light on the relevance of promoting the implementation of corporate governance awareness mechanisms surrounding companies to mitigate and reduce the financial shenanigans incentive from management in the manufacturing industry of Indonesia countries. Using the agency theory, this study has provided evidence to show that differences in the interests of the principal and agent can cause agency problems that form the basis of management as an agent to carry out financial shenanigans to improve financial statements.

This study shows that three variables are incorporated to examine if they were determinants of financial shenanigans and our findings indicate that financial target, characteristics of CFO and financial stability were simultaneous as financial shenanigans’ determinants. Nevertheless, financial targets were the only determinants that partially positively affected financial shenanigans, while the other determinants did not.

**Limitations.** The authors recognize that this study is not yet perfect, and as such there are still many imperfections and limitations that occurred during the research process, such as: (1) The samples were limited to the manufacturing industry listed in IDX in the years 2019-2020; (2) This study only used three independent variables: Financial Target, Chief Financial Officer Characteristics, and Financial Stability. Meanwhile, there are many other determinants of Financial Shenanigans; (3) The period of the study is only two years (2019-2020), whereas predicting the tendency of Financial Shenanigans requires a long period of time to obtain a more consistent result.
Suggestions. Based on the study's findings and limitations, the following recommendations can be made: (1) Expand the category of samples, such as financial companies (banking) and non-financial companies in other sectors, to predict the tendency of financial shenanigans; (2) Add other determinants to broaden the research scope; (3) Continue testing variables that do not have an effect, such as chief financial officer characteristics and financial stability, by bringing up other calculation indicators; (4) Extend the time span to more effectively and accurately predict financial shenanigans.

REFERENCES

Ali, C. ben. (2020). Corporate Fraud Exposed. Emerald Publishing Limited. https://doi.org/https://doi.org/10.1108/978-1-78973-417-120201009.

Almeral, M. (2021). Predicting Fraudulent Financial Statements Using Fraud Detection Models. Academy of Strategic Management. https://www.researchgate.net/publication/355478325.

Anindya, J. R., & Adhariani, D. (2019). Fraud risk factors and tendency to commit fraud: analysis of employees’ perceptions. International Journal of Ethics and Systems, 35(4), 545–557. https://doi.org/10.1108/IJES-03-2019-0057.

BenYoussef, N., & Khan, S. (2017). Identifying fraud using restatement information. Journal of Financial Crime, 24(4), 620–627. https://doi.org/10.1108/JFC-07-2016-0046.

Bhavani, G., & Amponsah, C. T. (2017). M-Score and Z-Score for detection of Accounting Fraud. https://www.researchgate.net/publication/318489930.

Bresslin, M. (2021, August 25). COVID-19: Impact on Financial Fraud. Domestic Preparedness. https://www.domesticpreparedness.com/preparedness/covid-19-impact-on-financial-fraud/.

Chawla, C. R., & Mishra, S. K. (2016). Financial Stability: An Overview.

Choi, S. Y. (2020). Industry volatility and economic uncertainty due to the COVID-19 pandemic: Evidence from wavelet coherence analysis. Finance Research Letters, 37. https://doi.org/10.1016/j.frl.2020.101783.

Deloitte. (2020a). Forensic Focus on COVID-19 Financial statement fraud. www.deloitte.com/us/about.

Deloitte. (2020b, April 1). Financial Reporting Update: COVID-19 and Economic Downturn. The Wall Street Journal. https://deloitte.wsj.com/articles/financial-reporting-update-covid-19-and-economic-downturn-01585767726.

Demetriades, P., & Owusu-Agyei, S. (2022). Fraudulent financial reporting: an application of fraud diamond to Toshiba’s accounting scandal. Journal of Financial Crime, 29(2), 729–763. https://doi.org/10.1108/JFC-05-2021-0108/FULL/XML.

Devi, P. N. C., Widanaputra, A. A. G. P., Budiasih, I. G. A. N., & Rasmini, N. K. (2021). The Effect of Fraud Pentagon Theory on Financial Statements: Empirical Evidence from Indonesia. Journal of Asian Finance, Economics and Business, 8(3), 1163–1169. https://doi.org/10.13106/jafeb.2021.vol8.no3.1163.

Esmaili Kia, G., Najafinia, S., & Oshani Assistant, M. (2019). Investigating the Relationship between External Corporate Governance Mechanisms and Financial Fraud, Focusing on Cognitive Evaluation Theory Insights on Agency Theory.
Prescriptions. *Accounting and Auditing Review*, 26(2), 169–192. https://doi.org/10.22059/acctgrev.2019.275806.1008116.

Feng, Q., Wu, G. L., Yuan, M., & Zhou, S. (2022). Save lives or save livelihoods? A cross-country analysis of COVID-19 pandemic and economic growth. *Journal of Economic Behavior & Organization*, 197, 221–256. https://doi.org/10.1016/j.jebo.2022.02.027.

Fitri, F. A., Syukur, M., & Justisa, G. (2019). Do the fraud triangle components motivate fraud in Indonesia? *Australasian Accounting, Business and Finance Journal*, 13(4), 63–72. https://doi.org/10.14453/aabfj.v13i4.5.

Ghafoor, A., Zainudin, R., & Mahdzan, N. S. (2019). Corporate fraud and information asymmetry in emerging markets: Case of firms subject to enforcement actions in Malaysia. *Journal of Financial Crime*, 26(1), 95–112. https://doi.org/10.1108/JFC-11-2017-0107.

Hakami, T. A., Rahmat, M. M., Yaacob, M. M., & Saleh, N. M. (2020). Fraud Detection Gap between Auditor and Fraud Detection Models: Evidence from Gulf Cooperation Council. *Asian Journal of Accounting and Governance*, 13, 1–13. https://doi.org/10.17576/ajag-2020-13-01.

Harman, S., & Bernawati, A. (2021). Determinant Of Financial Statement Fraud: Fraud Pentagon Perspective In Manufacturing Companies. *Review of International Geographical Education (RIGEO)*, 11(4), 554–566. https://doi.org/10.48047/rigeo.11.04.51.

Harris, D. G., Shi, L., & Xie, H. (2018). Does benchmark-beating detect earnings management? Evidence from accounting irregularities. *Advances in Accounting*, 41, 25–45. https://doi.org/10.1016/J.ADIAC.2018.04.001.

Hasan, M. S., Omar, N., Barnes, P., & Handley-Schachler, M. (2017). A cross-country study on manipulations in financial statements of listed companies Evidence from Asia. *Journal of Financial Crime*, 24(4), 656–677. https://doi.org/10.1108/JFC-07-2016-0047.

Hou, X., Wang, T., & Ma, C. (2021). Economic policy uncertainty and corporate fraud. *Economic Analysis and Policy*, 71, 97–110. https://doi.org/10.1016/J.EAP.2021.04.011.

Ines, A. (2017). The Effect of Discretionary Accruals on Financial Statement Fraud: The Case of the French Companies Audit quality View project The Effect of Discretionary Accruals on Financial Statement Fraud: The Case of the French Companies View project Ines Amara The Effect of Discretionary Accruals on Financial Statement Fraud: The Case of the French Companies. *International Research Journal of Finance and Economics*. http://www.internationalresearchjournaloffinanceandeconomics.com.

Iyer, S. R., & Simkins, B. J. (2022). COVID-19 and the Economy: Summary of research and future directions. *Finance Research Letters*, 102801. https://doi.org/10.1016/j.frl.2022.102801.

Khlif, H., & Achek, I. (2017). Gender in accounting research: a review. In *Managerial Auditing Journal* (Vol. 32, Issue 6, pp. 627–655). Emerald Group Publishing Ltd. https://doi.org/10.1108/MAJ-02-2016-1319.

Laird, B. K., & Bailey, C. D. (2016). Does monitoring reduce the agent’s preference for honesty? *Research on Professional Responsibility and Ethics in Accounting*, 20, 67–94. https://doi.org/10.1108/S1574-07652016000020003.
Liao, J., Smith, D., & Liu, X. (2019). Female CFOs and accounting fraud: Evidence from China. Pacific Basin Finance Journal, 53(August 2018), 449–463. https://doi.org/10.1016/j.pacfin.2019.01.003.

Majidah, M., & Muslih, M. (2019). Sustainability Report: Women directors, competencies of commissioners and corporate characteristics.

Ostwald, D., Cramer, M., Albu, N., & Tesch, J. (2020). The Global Economic Impact of the Pharmaceutical Industry.

Ozcelik, H. (2020). An Analysis of Fraudulent Financial Reporting Using the Fraud Diamond Theory Perspective: An Empirical Study on the Manufacturing Sector Companies Listed on the Borsa Istanbul. 131–153. https://doi.org/10.1108/s1569-37592020000102012.

Papík, M., & Papíková, L. (2022). Detecting accounting fraud in companies reporting under US GAAP through data mining. International Journal of Accounting Information Systems, 100559. https://doi.org/10.1016/J.ACCINF.2022.100559.

Ramírez-Orellana, A., Martínez-Romero, M. J., & Marino-Garrido, T. (2017). Measuring fraud and earnings management by a case of study: Evidence from an international family business. European Journal of Family Business, 7(1–2), 41–53. https://doi.org/10.1016/j.ejfb.2017.10.001.

Ratmono, D., Darsono, D., & Cahyonowati, N. (2020). Financial Statement Fraud Detection With Beneish M-Score and Dechow F-Score Model: An Empirical Analysis of Fraud Pentagon Theory in Indonesia. International Journal of Financial Research, 11(6), 154. https://doi.org/10.5430/ijfr.v11n6p154.

Rengganis, RR. M. Y. D., Sari, M. M. R., Budiasih, I. G. A. N., Wirajaya, I. G. A., & Suprasto, H. B. (2019). The fraud diamond: element in detecting financial statement of fraud. International Research Journal of Management, IT and Social Sciences, 6(3), 1–10. https://doi.org/10.21744/irjmis.v6n3.621.

Rustiarini, N. W., T, S., Nurkholis, N., & Andayani, W. (2019). Why people commit public procurement fraud? The fraud diamond view. In Journal of Public Procurement (Vol. 19, Issue 4, pp. 345–362). Emerald Group Holdings Ltd. https://doi.org/10.1108/JOPP-02-2019-0012.

Sakti, E., Tarjo, T., Prasetyono, P., & Riskiyadi, Moh. (2020). Detection Of Fraud Indications In Financial Statements Using Financial Shenanigans. Asia Pacific Fraud Journal, 5(2), 277. https://doi.org/10.21532/apfjournal.v5i2.170.

Salim, S., Putera Siswanto, H., Wijaya, H., & Angela, J. (2021). Factors Affecting Financial Shenanigans in the Perspective of Fraud Triangle: An Empirical Study Among Manufacturing Companies Listed in Indonesia Stock Exchange.

Singh, N., Lai, K., Vejvar, M., & Cheng, T. C. E. (2019). Data-driven auditing: A predictive modeling approach to fraud detection and classification. Journal of Corporate Accounting & Finance, 30(3), 64–82. https://doi.org/10.1002/jcaf.22389.

Sun, J., Kent, P., Qi, B., & Wang, J. (2019). Chief financial officer demographic characteristics and fraudulent financial reporting in China. Accounting and Finance, 59(4), 2705–2734. https://doi.org/10.1111/acfi.12286.

Umar, H., Purba, R., Partahi, D., & Purba, R. B. (2020). Fraud Diamond Analysis In Detecting Fraudulent Financial Report. Article in International Journal of Scientific & Technology Research. www.ijstr.org.
Utami, E. R., Muhammadiyah, U., Jalan, Y., Selatan, L., Tirto, T., Kasihan, B., & Pusparini, N. O. (2019). The Analysis of Fraud Pentagon Theory and Financial Distress for Detecting Fraudulent Financial Reporting in Banking Sector in Indonesia (Empirical Study of Listed Banking Companies on Indonesia Stock Exchange in 2012-2017). *Advances in Economics, Business and Management Research*. https://doi.org/https://doi.org/10.2991/icaf-19.2019.10.

Utami, I., Wijono, S., Noviyanti, S., & Mohamed, N. (2019). Fraud diamond, Machiavellianism and fraud intention. *International Journal of Ethics and Systems*, 35(4), 531–544. https://doi.org/10.1108/IJOES-02-2019-0042.

Yu, D. E. C., Razon, L. F., & Tan, R. R. (2020). Can global pharmaceutical supply chains scale up sustainably for the COVID-19 crisis? In *Resources, Conservation and Recycling* (Vol. 159). Elsevier B.V. https://doi.org/10.1016/j.resconrec.2020.104868.