Effects of Corporate Governance and Financial Performance on Fraudulent Financial Statements: Evidence from Indonesia's Property, Real Estate, and Building Construction Sectors

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ABSTRACT

This study aimed to examine the effects of managerial and institutional ownership, and financial performance on fraudulent financial statements. Companies with weak governance and poor financial performance have a high tendency to partake in fraudulent activities as these factors create pressure and opportunity (fraud triangle theory) to mask financial figures. Weak governance sectors were chosen from the Indonesia Stock Exchange — property, real estate, and building construction sectors. This study used a purposive sampling technique with predetermined criteria and employed panel regression analysis. The final panel data set consisted of 96 company-year observations. Managerial and institutional ownership had a significant and negative effect on fraudulent financial statements. Company leverage had a positive and significant relationship with fraudulent financial statements. Nevertheless, company profitability had no association with fraudulent financial statements. Furthermore, the interaction of company profitability strengthened the positive effect of managerial ownership and fraudulent financial statements. This study contributes to the literature by examining the corporate governance effectiveness in curbing fraudulent financial statements in selected sectors in Indonesia. In addition, this study offers practitioners insights into enhancing the effectiveness of internal and external governance mechanisms as well as the internal control systems in the companies.

Keywords: Managerial Ownership, Institututional Ownership, Profitability, Leverage, Fraudulent Financial Statements

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INTRODUCTION

Fraudulent financial reporting is an intentional omission, misrepresentation, over-, or underestimating of financial figures to mask financial reports. According to the Association of Certified Fraud Examiners (ACFE), manipulating financial figures can be categorised under fraudulent activities (ACFE, 2018). Fraud is an act that violates the regulations by deliberate manipulation for the personal benefit which causes loss to others (Sari & Husadha, 2020). Although, a fraudulent financial statement is the least common form of fraud, but it causes an immense loss to companies once it is detected and revealed (Dzaki & Suryani, 2020).

Fraudulent financial statement occurs due to pressure, capability, opportunity, and rationalisation factors (fraud diamond theory). Managers intentionally manage the financial figures due to the pressure they receive from shareholders to show a high profit and use their position (capability) to manipulate the financial figures in the absence of strong internal controls (opportunity). Arens et al. (2006) found that fraud occurs in a company with weak management control. These factors lead the manager to manipulate the financial statement resulting in low-quality financial statements (Sari & Husadha, 2020). Low-quality financial statements can mislead stakeholders' decision-making especially investors (Handayani, 2020). For instance, companies that sell their shares in the stock market should meet the prospectus, which is created by the company when the company sells its shares to investors (Romus, Anita, Abdillah & Zakaria, 2020). Thus, the company's financial statement must be free from any bias or error.

Asian countries witnessed an unprecedented outbreak of cases of fraudulent financial reporting among public listed companies. Based on the statistics from ACFE Global, the reported fraud cases in Indonesia were 36 cases out of 198 cases in the Asia Pacific region (Kontan, 2021). Furthermore, ACFE (2018) concurred that fraud is financially more harmful to a company. Fraudulent financial statements may cause a loss as much as $700,000, whereas corruption and asset misuse made a loss amounting to $500,000 and $180,000 respectively (ACFE, 2018). This example evinces that fraudulent financial statements make a bigger impact than asset misuse and/or corruption. Financial statement fraud has the greatest influence on a company because the losses are the greatest among other cases.

For instance, the fraudulent financial statements in Indonesia were PT Waskita Karya – a state-owned enterprise (SOE) that is listed in the property, real estate, and building construction sectors. This case signifies that the corporate governance of this company was not well-implemented, so its financial performance could be manipulated for the interest of a particular party. PT Waskita Karya had the highest and most stable position among the SOEs in Indonesia. By the middle of August 2009, PT Waskita Karya had manipulated its financial statements by marking up its profit, thus the reported profit was higher than that the real. In 2008, the real profit of PT Waskita Karya was Rp163.4 billion, but it was recorded as much as Rp307.1 billion in 2009. PT Waskita Karya also misused its assets (Arifenie, 2009). In 2018, PT Waskita Karya was involved in a fraud case carried out by the manager of the enterprise. The company recorded a fictitious project that cost the state Rp168 billion (Kontan, 2018).

The above cases showcase that the perpetrators of fraud could come from various groups including the highest level (top management) or lower level (employee). Therefore, all groups in the company should play their own roles in curbing fraudulent activities (ACFE, 2016). To curb fraudulent financial statements the company needs to install strong internal controls (Dimitrijevic, Milovanovic, & Stancic, 2015), good corporate governance (Rostami & Rezaei, 2022), and implement whistleblowing policies (Shonhadji & Maulidi, 2021). Corporate governance is a rule to regulate the relations among the shareholders, management, creditor, government, employees, and stakeholders that are connected to the controlling system of a company (Corporate Governance Indonesia Forum, 2001).

Good corporate governance enables a company to stand the fierce competition and create a healthy business environment whilst applying appropriate business ethics. The implementation of good corporate governance can reduce fraudulent financial statement activities (Endah, Tarjo, & Musyarofah, 2020). Corporate governance is also related to the objectives of good company management that can create additional value for stakeholders (Priswita & Taqwa, 2019). In addition, corporate governance plays a role in managing, directing, and monitoring the company's business to create value for stakeholders (Syamsudin, Imronudin, Utomo, Praswati, 2017). Good corporate governance has a close relation to the financial performance. Thus, internal and external governance mechanism is crucial

to reduce fraudulent financial statement activities and upholding financial statement quality.

Financial statements reflect the ability of a company in its operations and financial performance. The financial performance of a company must keep improving to attract investors (Setiyono & Amanah, 2016). Financial performance reflects all the efforts of a company which can measure the company's success in making a profit. The prospect and potential of the company can be projected by efficient and effective uses of its resources. The success of a company is indicated when the company reaches its predetermined standards and goals (Makatita, 2016).

The objective of this study was to examine the effect of corporate governance and financial performance among the property, real estate, and building construction sectors listed in the Indonesia Stock Exchange (IDX). Property sectors in Indonesia are projected to have a promising growth future as many global investors cooperate with local developers to build affordable residences. Besides that, the current demand for housing is increasing in Indonesia (Dinisari, 2019). Companies that engage in the property, real estate, and building construction businesses are drastically increasing and this industry also has a high potential to be involved in fraudulent financial statements according to the ACFE reports. Moreover, an increase in the number of whistleblowing activities in fraudulent activities in the property sector was from 121 cases to 157 cases in 2014 (Kompas, 2014). Hence, it is fruitful to examine the effect of corporate governance and financial performance on fraudulent financial statements among the property, real estate, and building construction sectors.

THEORETICAL REVIEW

Agency Theory

The Agency Theory explains the relationship between the agent (manager) and principal (owner). The agent plays a significant role on behalf of the principal in managing the company. Jensen and Meckling (1976) argue that the Agency Theory deals with agency relation as a contract between a principal who uses the service of an agent to carry out the principal's

tasks and mandates the agent to make decisions on his behalf. Panda and Leepsa (2017) define a principal as a party that invests his capital and takes risks to gain economic benefits, whereas an agent is a party that manages the company's risks and maximizes their personal benefits. According to Walker (1988), the Agency Theory explains that a company is established from a relational contract between an owner of economic resources and a manager who is assigned to manage the resources.

Agency problems arise in a company due to the separation between the owner and manager. The Agency problem arises due to the difficulty in making a perfect contract between the agent and principal where the agent's decision does not maximise the interest of the principal (Brennan, 1995; Widodo & Syafruddin, 2017). The principal and agent have opposing risks which may create an agency conflict. The prevalence of conflict tends to increase and performance level decreases when the separation between the manager and owner is stricter (Jensen & Meckling, 1976).

The Agency Theory was developed further by introducing the principles of agency cost. Jensen and Meckling (1976) explained that no agency cost is required if a manager owns 100% of the capital. However, if the manager's contribution is less than 100%, agency cost arises along with the conflict of interests in the company. By contrast, if the different parties have the same interest, the conflict can be avoided, and agency cost is inexistent. To reduce agency conflict, corporate governance appears as a system that provides guidance and principles to harmonise different interests, especially between managers and stakeholders.

Signalling Theory

The Signalling Theory is employed as the foundation of financial performance. This Theory states that a company should give the information signal to the users of its financial statements on the actions taken by the manager to realise the interests of the stakeholders. The Theory also explains the importance of the information given by the company in the consideration of a potential investor to make an investment decision. The information provides descriptions, notes, and elaborations in the past, current, and future conditions of the company. Therefore, complete, relevant, accurate, and timely information can help a potential investor to make an analysis before making an investment decision.

Similarly, Taufiq and Wahidahwati (2016) argued that the Signalling Theory is useful for a company to deliver the information to a potential investor to analyse the prospect of the company. Thus, Signalling Theory becomes the reference to the potential investor make an investment decision. According to Spence (1973), the Theory describes that the signaller has more information than what the public knows or the information is not yet received by the receiver, with the same signal quality. Despite the probability of much public information, a disparity may exist between what is known and what can be interpreted from the new signal. The Signalling Theory indicates that the information, either positive or negative, can be useful for the receiver if it is elaborated by the signaller (Kirmani & Rao, 2000). The Theory also describes the behaviour of both parties when they have access to different information. Generally, the information giver must decide the way to give information signal, and the receiver must choose the way to interpret it (Connelly, Certo, Ireland, Reutzel, 2011).

Corporate Governance

Corporate governance is the relationship among a number of elements in a company which contribute to the company's performance. The implementation of good governance in a company is expected to create better performance including financial and non-financial performance. Moreover, corporate governance implementation is able to create good public image and indirectly attract future investors. Good corporate governance also help the top management for planning their direction in managing limited resources effective and efficiently and increasing its performance (Irwondy, 2016). The main goal of corporate governance is to protect the stakeholders from fraud, misrepresentation and manipulation (Agrawal & Cooper, 2016; Pangaribuan, 2020).

According to the State-Owned Enterprises No. Per-01/MBU/2011 regulations, good corporate governance consists of five principles, namely, transparency, accountability, responsibility, independence, and fairness (FCGI, 2001). Transparency is the openness in the decision making process and disclosure of the company's relevant information material. Accountability is the clarity of functions, implementation, and responsibility to realise effective company management. Responsibility is company management according to the regulations of law and principles

of a company's well-being. Independence is managing the company professionally without a conflict of interests and pressures from other parties which may impair the independence of the top management. Fairness is the realisation of justice and right equality for the stakeholders based on the agreement and regulations of law.

Financial Performance

Performance is a description of achievement level of a company's operations to realise its target, goals, mission, and vision as outlined in the company's strategic plan. Financial performance refers to the achievement of a company in a particular period as recorded in the company's financial statements (Nursasi, 2020). Financial performance is the financial condition of the company that can be analysed using financial analytical tools to evaluate actual performance. Reported financial statements are crucial for the company to face the changes in the environment in managing their resources effectively and efficiently (Suryanto & Refianto, 2019).

In addition, Abutaber et al. (2021) found that good corporate governance in the company is able to enhance financial performance. Board independence is one of the essential corporate governance tools influential in firms' performance (Azmi, Zakaria, Abd Sata & Mohd Sanusi, 2020). Enhancing financial performance lies on the responsibilities of the manager to evaluate and monitor financial performance. The manager decides how the evaluation will be conducted by collecting the data which accurately reflects company performance and develops a set of standards to measure performance. If the performance is unsatisfactory, the manager needs to identify and implement a strategy to improve the performance.

HYPOTHESIS DEVELOPMENT

Managerial Ownership and Fraudulent Financial Statements

The agency problem permutates from the owner-manager relationship (type I agency problem) to controlling owner-minority shareholders relationship (type II agency problem). Managerial ownership occurs when the shareholder and the management is the same person, whereby the shareholders are involved in the management. In reference to the

Agency Theory, high managerial ownership may increase the probability of fraudulent financial statements. However, in a different perspective high managerial ownership can reduce the agency problem and cost because managerial ownership will match the interest of the management and shareholders (Kurniawan, Hutadjulu, & Simanjuntak., 2020).

Higher managerial ownership has the potential to reduce the tendency of fraudulent financial statements because the manager holds a share in the company. Consequently, they will act professionally to increase company performance through effective and efficient operations which later can minimise fraudulent financial statements. In a similar vein, Guritno et al. (2020) and Kurniawan et al. (2020) found that managerial ownership had a negative influence on fraudulent financial statements. Therefore, the first hypothesis of this study was formulated as follows:

H1: Managerial ownership has negative effect on fraudulent financial statements.

Institutional Ownership and Fraudulent Financial Statements

Institutional ownership is share ownership held by institutional investors such as insurance companies, banks or others (Fadillah, 2017). According to the Agency Theory, institutional ownership is one of the ways to reduce agency conflict. Larger institutional ownership will increase the control exercised by an external party over a particular company. Therefore, large control by institutional investors may reduce agency cost and the propensity of fraudulent financial statements by the company (Jensen & Meckling, 1976) as the active institutional investors have as a main motive to increase the value of the firms (Azmi, Abd Sata, Abdullah, Ab Aziz, & Ismail, 2021). In addition, Apriliana and Agustina (2017), Ghandur, Sari & Anggraini (2019) and Guritno et al. (2020) found that institutional ownership had a negative influence on fraudulent financial statements. Hence, this study proposed the following hypothesis:

H2: Institutional ownership has a negative influence on the potency of fraudulent financial statements.

Profitability and Fraudulent Financial Statements

Profitability is one of the ways to measure the ability of a company in gaining profits and the level of effectiveness of the management in running the company (Hery, 2018). According to the Signalling Theory, the importance of a company to share the information is that the information serves as the consideration for the prospective investor to make an investment decision. The information depicted includes profitability. A high level of profitability gives a positive effect on a company's financial performance to future investors.

Widhayanti and Utomo (2020) demonstrated that the profitability ratio had negative and significant influence on the potency of fraudulent financial statements. Adi et al. (2018) found that a highly profitable company has lower financial distress and less involved in the financial statement fraud. This study proposed the following hypothesis as a highly profitable company is less involved in financial statement fraud due to low pressure.

H3: Profitability has negative influence on the potency of fraudulent financial statements.

Leverage and Fraudulent Financial Statements

Leverage is the amount of debt used for operational funds in a company and the ratio of long-term debt to capital structure (Janrosl & Yuliadi, 2019). The agency conflict may arise among managers, shareholders and creditors because creditors will rely on the published financial statement before granting the credit. However, highly leveraged firms have a high tendency to mask their financial figures to show better performance and to gain creditors and investors' confidence (Widhayanti & Utomo, 2020). Ansori and Fajri (2018), Ramadhan and Laksito (2019), Dzaki and Suryani (2020), and Listyawati (2020) found that leverage ratio had a positive influence on the potency of fraudulent financial statements.

On the flip side, Rahman et al. (2020) found that financial leverage of companies did not influence fraudulent financial statement among LQ45 companies listed in the Indonesia Stock Exchange. Inconclusive findings were found on the relationship between leverage and fraudulent financial

statements. This study proposed the following hypothesis as highly leverage companies create pressure and rationalisation to manipulate the financial figures to sustain in the market.

H4: Leverage has positive influence on the potency of fraudulent financial statements.

Managerial Ownership, Profitability, and Fraudulent Financial Statements

The agency problem permutates owner–manager relationship (Type I agency problem) into owner–minority shareholders relationship (Type II agency problem). Larger managerial ownership can reduce the conflict among stakeholders, agency problem and their associated costs (Jensen & Meckling, 1976; Mustapha & Che Ahmad, 2014). Consequently, increased managerial ownership can reduce the need for monitoring as there are more alignments to incentive. Furthermore, a high rate of managerial ownership is more likely to create value, acquire wealth for company and less involved in fraudulent financial statements (Seifzadeh et al., 2021).

Although prior studies found a negative effect of managerial ownership on fraudulent financial statements, this negative association can be weakened if a company has a high level of profitability. Larger managerial ownership results in higher intention to further manage earning figures to maximise the manager's remuneration and compensation (Hutchinson et al., 2008; O'Callaghan, Ashton, & Hodgkinson., 2018). This association increases if the company has a high level of profitability because the manager can maximise his motivation to increase his power, job security and remuneration. Therefore, this study proposed the following hypothesis:

H5: There is an interaction effect between managerial ownership, company profitability and fraudulent financial statements.

RESEARCH METHOD

Sample Selection

The sample of this study was selected companies listed under the property, real estate, and construction sectors at Indonesia Stock Exchange (IDX) for the period of 2016–2019. The chosen sample was based on the ACFE reports wherein property, real estate and construction sectors have a high tendency to conduct financial statement fraud (ACFE, 2018). The purposive sampling method was used and the selected companies were chosen based on the predetermined criteria above (Widarjono, 2015).

The initial sample size was 84 companies, but 22 companies were deleted because they were delisted from the IDX. Additionally, 10 companies did not publish their annual reports, and 28 companies had insufficient data. Hence, the final sample size was 24 companies. Table 1 illustrates the sample selection. The financial data for the study were obtained from the published annual reports sourced at the official website of IDX (www.idx.co.id). The final sample consisted of 96 company-year observations.

Table 1: Sample Selection

Details	Total companies
Population	84
(-) Delisted companies	(22)
(-) Incomplete annual report	(10)
(-) Insufficient data on managerial ownership	(26)
(-) Insufficient data on institutional ownership	(2)
Final Sample	24

Source: Indonesia Stock Exchange, 2021

Measurement of the Variables

The dependent variable of this research was fraudulent financial statements which included intentional omission of certain amount or disclosure of financial statements with the aim to cheat the users of financial statements (Janrosl & Yuliadi, 2019). The F-score was used to measure financial statement fraud (Indriani & Terzaghi, 2017). The F-score measures

accrual quality and financial performance. Accrual quality was calculated using RSST accrual. Accrual quality is defined by non-cash and non-equity changes in a company's balance sheet as accruals, and it distinguishes the reliability characteristics of working capital (WC), non-current operating (NCO) and financial accrual (FIN) as well as the components of assets and liabilities in the accrual type (Indriani & Terzaghi, 2017). Financial performance was measured by calculating changes in working capital minus changes in inventories minus changes in cash sales minus change in earnings (Indriani & Terzaghi, 2017).

F-score = Accrual Quality + Financial Performances

RSST Accrual = $(\Delta WC + \Delta NC0 + \Delta FIN) / ATS$

Financial Performance = $\Delta REC - \Delta INV - \Delta CASH\ SALES - \Delta EARNINGS$

Where:

WC = Current Assets – Current Liability
NCO = (Total Assets – Current Assets – Investment and Advances) / (Total Liabilities – Current Liabilities – Long Term Debt)
FIN = Total Investment – Total Liabilities
ATS = (Beginning Total assets + End Total Assets) / 2
⊗ REC = Changes in Receivables / Average Total Assets
⊗ INV = Changes in Inventories / Average Total Assets
⊗ CASH SALES $= \frac{\Delta Sales}{Sales\ (t)} - \frac{\Delta Receivables}{Receivables\ (t)}$

⊗ Earnings $= \frac{Earnings\ (t)}{Average\ Total\ Asset\ (t)} - \frac{Earnings\ (t-1)}{Average\ Total\ Asset\ (t-1)}$

The independent variable in this study was managerial ownership which is an adjustment to the interests of shareholders by the management that also acts as the owner of the companies. Managerial ownership was calculated by the total managerial ownership divided by total share outstanding (Priswita & Taqwa, 2019). Institutional ownership is year-end share ownership owned by an institution including insurance company,

banks or government. Institutional ownership was calculated by the total institutional ownership divided by total share outstanding (Priswita & Taqwa, 2019). Profitability is used to measure a company's ability to generate profit and management effectiveness. The higher the profitability value, the higher the company's ability to earn profits by using its assets (Hery, 2018). Profitability was measured by return on assets (ROA), where net profit is divided by total assets (Sheisarvian et al., 2015). Leverage is the amount of debt used for funds in a company's operations and the ratio between long-term debt and capital structure (Janrosl & Yuliadi, 2019). Leverage was measured by debt-to-equity ratio, where total liabilities are divided by total equity.

Research Design

The following research design was constructed to test the hypotheses. Model 1 was used to test H1, H2, H3 and H4, and Model 2 was used to test H5.

$$\text{F-score}_{it} = \beta_0 + \text{MOWN}_{it} + \beta_1\ \text{INST}_{it} + \beta_2\ \text{ROA}_{it} + \beta_3\ \text{DER}_{it} + \beta_4\ \text{year effect}_{it} + \beta_5\ \text{company effect}_{it} + \varepsilon_{it}$$

Model 1

$$\text{F-score}_{it} = \beta_0 + \text{MOWN}_{it} + \beta_1\ \text{INST}_{it} + \beta_2\ \text{ROA}_{it} + \beta_3\ \text{DER}_{it} + \beta_4\ \text{MOWN*ROA} + \beta_5\ \text{year effect}_{it} + \beta_6\ \text{company effect}_{it} + \varepsilon_{it}$$

Model 2

ANALYSIS AND DISCUSSION

Descriptive Analysis

Table 2 presents the descriptive statistics of dependent, independent and control variables used in this study. The mean value of F-score was -0.06 with the range between -2.98 and 0.04. The mean score for MOWN was 9% with the range from 0% to 65%, indicating the share ownership held by management and executive directors. The mean value of INST was 78% with the range distribution 21% to 100%, indicating that institutional

investors held the highest level of share ownership in the companies. The mean value of ROA was 0.03 with the range from -0.25 to 0.18, and that of DER is 1.14 with the range 0.04 to 0.83. The financial data indicate low profitability rates and high debt structures among the sample companies. The variance inflation factor (VIF) value showed no multicollinearity issues in the data because all values were less than the threshold value of 10.

Table 2: Descriptive Statistics (n = 96)

Descriptive	Minimum	Maximum	Mean	Std. Deviation	VIF
F-score	-2.98	0.04	-0.06	0.84	-
MOWN	0.00	0.65	0.09	0.18	1.30
INST	0.21	1.00	0.78	0.18	1.34
ROA	-0.25	0.18	0.03	0.06	1.16
DER	0.04	0.83	1.14	0.93	1.17

Notes: F-score is fraudulent financial statements; MOWN is managerial ownership; INST is institutional ownership; ROA is return on assets; DER is debt to equity ratio.

Correlation Analysis

Table 3 shows the Pearson correlation matrix among the variables used in this study. The results showed that only DER was significantly correlated with F-score. The results provided the early indicators that companies with high leverage (DER) had a higher tendency to be involved in fraudulent financial statements. INST, ROA and DER showed negative and significant associations with MOWN. The results signified that institutional ownership was less likely to occur in the companies with high managerial ownership due to the type II agency problem between the majority and minority shareholders. ROA and DER showed positive and significant correlations at 1% level with INST. The results indicated that institutional ownership was more associated with the companies with high profitability and high leverage rates. The overall results showed that the correlation values of all the variables were less than 0.8 which indicated no multicollinearity issues in the analysis (Hair, Black, Babin, & Anderson, 2010).

Table 3: Pearson Correlation Matrix

	F-score	MOWN	INST	ROA	DER
F-score	1.0000				
MOWN	-0.1169	1.0000			
INST	-0.0883	-0.4228***	1.0000		
ROA	0.0198	-0.2273**	0.2898***	1.0000	
DER	0.2380**	-0.2839***	0.2742***	-0.0803	1.0000

Notes: ***, ** and * represent significance at 1%, 5% and 10% level, respectively.
F-score is fraudulent financial statements; MOWN is managerial ownership; INST is institutional ownership; ROA is return on assets; DER is debt to equity ratio.

Multiple Regression Analysis

Table 4 shows the results of multiple regression analysis on fraudulent financial statements. Before the data analysis was carried out, a diagnostic test was carried out to check for the heteroscedasticity problem. In addition the robust standard error was applied to solve the heteroscedasticity problem. The Hausman test was also conducted to test for model fitness, and the findings indicated that the random effect model was more appropriate to the hypothesis.

Model 1 presents the regression results without the interaction. The final estimation equation showed that Wald Chi^2 was significant at the 5% level and indicated the validity of the models with the overall R^2 amounting 10.26%. The results also showed that managerial ownership (MOWN) had a negative and significant influence at the 5% level on fraudulent financial statements (F-score). Management ownership is less likely to be involved with fraudulent activities as it may diminish the company's value. The findings supported H1 and concur with the Agency Theory stating that larger managerial ownership can align the management's interest with the shareholders' interest (Kurniawan et al., 2020). Hence, this alignment is able to reduce the agency problem. The finding is also consistent with Guritno et al. (2020) and Kurniawan et al. (2020) which found that managerial ownership is less involved in fraudulent financial statements.

Moreover, the findings showed that institutional ownership (INST) had a negative and significant influence at the 1% level on fraudulent financial statements (F-score). The results revealed that institutional investors do not compromise with fraudulent financial statements. Institutional ownership in the companies can reduce fraud in the financial statements, and the

existence of institutional investors in the companies can minimise agency problems. These findings are consistent with those of Apriliana and Agustina (2017), Ghandur et al. (2019) and Guritno et al. (2020) which demonstrated a negative relationship between institutional ownership and fraudulent financial statements. Leverage (DER) showed a positive and significant effect on fraudulent financial statements (F-score). As expected, a high rate of company leverage has a strong tendency for the manipulation of financial statements. These findings are corroborated by Ansori and Fajri (2018), Ramadhan and Laksito (2019), Dzaki and Suryani (2020) and Listyawati (2020) who discovered that leverage had a positive relationship with fraudulent financial statements. However, the profitability showed an insignificant relationship to fraudulent financial statements.

Model 2 presents the regression results with interaction variables. The final estimation equation showed that Wald Chi2 was significant at the 1% level and indicated the validity of the model with the overall R2 amounting 11.59%. The findings revealed that the interaction of company's profitability and managerial ownership (MOWN*ROA) had a positive and significant influence at the 1% level on fraudulent financial statements (F-score). Due to the positive moderating effect, at high level of the profitability, the effect of managerial ownership and fraudulent financial statement was high. These findings support the theory that a manager with company share ownership in a highly profitable company has the incentive to be involved in fraudulent activities to maximise his remuneration and compensation (Hutchinson et al., 2018; O'Callaghan et al., 2018). This study also supported the type II agency problem regarding conflict of interests and information asymmetry between manager and shareholder. The findings were also aligned with Habib and Jiang (2012) where managerial ownership can entrench a manager with absolute control of the company and have a strong tendency to be involved in fraudulent activities.

Table 4: Multiple Regression Results

Variables	Expected Direction	Model 1		Model 2	
		coefficient	z-value	coefficient	z-value
Constant	-/+	0.5143	1.85**	0.4972	1.67**
MOWN	-	-0.5578	-1.71**	-0.5712	-1.89**
INST	-	-0.1011	-2.85***	-1.0381	-2.64***
ROA	-	1.2502	0.99	0.2874	0.22
DER	+	0.2442	2.90***	0.2364	2.85***
MOWN*ROA	+/-			14.4093	3.08***
Company effect		Yes		Yes	
Year effect		Yes		Yes	
R^2 (%)		10.26		11.59	
Wald Chi^2		20.77	(0.0004)**	56.66	(0.0000)***
Observation		96		96	

Notes: ***, ** and * represent significance at 1%, 5% and 10% level, respectively.
F-score is fraudulent financial statement; MOWN is managerial ownership; INST is institutional ownership; ROA is return on assets; DER is debt to equity ratio.

CONCLUSION

This study adds to the stream of the burgeoning literature on the effects of corporate governance and financial performance on fraudulent financial statements among the companies in property, real estate and construction sectors listed at IDX. Having investigated 24 companies during the period of 2016–2019, this study founds that managerial ownership (MOWN) and institutional ownership (INST) were less involved in fraudulent financial statements. Large managerial and institutional ownership in a company can reduce the agency problem and create better interest alignment among the shareholders. These findings provide evidence that managerial ownership and institutional ownership can work as a corporate governance watchdog to ensure high quality financial statements by limiting the fraudulent opportunities in the financial statements. This study also showed that a company which relies more on debt structures has a strong tendency to partake in fraudulent financial statements. Further analysis found evidence suggesting that a company's profitability moderates the negative relationship between managerial ownership and fraudulent financial statements. In high profitable companies and at higher managerial ownership the tendency to partake in the fraudulent financial statement activities is high. This is because managers tend to increase their power, job securities and remunerations

in high profitable companies, and this motive is to achieve manager's entrenchment hypothesis.

This study is subject to a number of limitations, and these limitations present ample opportunities for future research. Firstly, this study only used four-year data from 2016 to 2019. Further research should extend the time period to include recent financial data. Secondly, this study only used one type of non-financial company, namely property, real estate and construction. Future research can consider other sectors as the history of fraudulent financial statement can come from various sectors. Thirdly, this study only focussed on four independent variables, namely, managerial ownership, institutional ownership, profitability and leverage. Future studies should consider other corporate governance variables (e.g. board size, board expertise, etc.) and other financial performance variables (e.g. company growth, liquidity and marketability ratio) as these variables may have a significant effect on fraudulent financial reporting opportunities. Fourthly, this study only examined the direct effect of managerial ownership without considering the effect of the U-shape pattern of managerial ownership. Future studies should consider the effect of the U-shape pattern of managerial ownership on fraudulent financial reporting.

This study is expected to contribute to the body of knowledge and practitioners. The findings of this study contribute to the literature on the driving factors of fraudulent financial statements activities. The contribution to the practitioner suggests that the companies must improve their internal control systems and strengthen supervision to curb the opportunities for fraudulent financial statements. Shareholders are expected to provide views and information to the stakeholders, such as investors and creditors, necessary especially for making decisions before investing and providing loans to the company.

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