

## **Ownership Dynamics and Financial Statement Fraud: A Study in the Context of COVID-19**

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### **ABSTRACT**

The COVID-19 pandemic necessitates managers to engage in managerial entrenchment in order to enhance the outward appearance of firms. The study analyzes the effect of ownership structures that is vulnerable of managerial entrenchment (managerial ownership and family ownership) on financial statement fraud (accrual earnings management) during COVID-19 period. Using fixed effect panel data on manufacturing companies listed in Indonesia Stock Exchange from 2020-2022, this study finds that both managerial ownership and family ownership have positive effect on financial statement fraud. It can be concluded that the entrenchment effect is more apparent than incentive-alignment effect during COVID-19. This study is one of the first studies to analyze the managerial entrenchment practice during COVID-19.

**KEYWORDS** - financial statement fraud, managerial ownership, family ownership, COVID-19.

### **1. INTRODUCTION**

Businesses all throughout the world have been greatly impacted by the COVID-19 pandemic, which has raised questions and scrutiny about financial reporting procedures. According to earlier studies, businesses typically do financial statement fraud by increasing accrual income during COVID-19 compared to pre-COVID-19 [1]. Management may be urged to submit financial reports with positive content in order to preserve the connections between management and stakeholders throughout the crisis [2].

According to earlier studies, protecting shareholders is crucial to ensuring that managers in COVID 19 do not manipulate earnings [3]. Since most Indonesian companies have dominant shareholders with a variety of ownership forms, this article focuses on protecting minority shareholders. Ownership structures like as family and managerial ownership have the potential to negatively impact minority shareholders. In the context of the COVID-19 issue, the purpose of this research article is to determine whether family and managerial ownership have a beneficial impact on financial statement fraud, as measured by accrual earnings management.

Managers have a strong interest in optimizing returns for both their personal portfolios and the portfolios of the firms they oversee when they also own stock in those companies. Increased managerial ownership in a business may result in a greater emphasis on boosting output [4]. However, excessive managerial staff shareholding can lead to management entrenchment and the theft of minority shareholders' wealth [5]. During COVID-19, when businesses are having financial difficulties, it is argued that management-owned businesses are more likely to engage in earnings management techniques.

The type 2 agency dilemma, or the conflict between majority and minority shareholders, affects family-owned businesses [6], [7]. Following their acquisition of control over the company, the dominant shareholder(s) may make actions that adversely disadvantage minority shareholders. Additionally, family involvement in management fortifies the positions of managers and promotes the pursuit of objectives that may diverge from those of minority shareholders. According to Fan and Wong [8], controlling shareholders possess significant influence on the accounting information of the company, play a major role in decision-making, and shape the development of reporting rules. This control increases the likelihood that they will engage in opportunistic profits management to conceal their expropriation activities.

Previous studies have determined a number of characteristics, such as opportunities, motivations, and managerial justification, that lead to fraudulent financial reporting opportunities [9], [10]. Building upon this concept, the current study will look at how ownership structures facilitate accrual-based earnings management during the COVID-19 crisis by offering incentives and opportunities.

Previous studies [11], [12], [13] have examined the impact of ownership on earnings management in the context of financial statement fraud. But none of them perform the analysis during the COVID-19 pandemic. In an attempt to close this gap, this study looks at how accrual-based earnings management—a stand-in for financial statement fraud—was affected by family and managerial ownership during the COVID-19 pandemic.

## 2. RESEARCH METHOD

This paper used purposive sampling as the sampling method in this investigation. This research sample will focus on the consumer cyclical and non-cyclical listed on the Indonesia Stock Exchange (IDX) during COVID 19 period (2020-2023) which closing date end on December 31, use rupiah as currency in financial statement, consistently earn profit. This research uses secondary data from companies' annual reports. The data are analyzed using Stata. Financial statement fraud was proxied by earnings management. Earnings management was measured using the Modified Jones model. The formula is as follows:

$$NDA_t = \beta_{1j} \left( \frac{1}{A_{t-1}} \right) + \beta_{2j} \left( \frac{\Delta REV_t - \Delta REC_{it}}{A_{t-1}} \right) + \beta_{3j} \left( \frac{PPE_{it}}{A_{t-1}} \right)$$

By using the regression coefficient, the value of non-discretionary accruals is calculated by the model:

$$\frac{TAC_t}{A_{t-1}} = \beta_{ij} \left( \frac{1}{A_{t-1}} \right) + \beta_{2j} \left( \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \beta_{3j} \left( \frac{PPE_t}{A_{t-1}} \right) + e_t$$

Wherein, total accruals (TACC) can be calculated through a balance sheet approach i.e.

$$TA_t = NI_t - CFO_t$$

$$DA_{jt} = \left( \frac{TAC_{jt}}{A_{jt-1}} \right) - NDA_{jt}$$

Explanation:

$NDA_t$	=	Non-discretionary accruals in year t
$TA_t$	=	Total accruals in year t
$NI_t$	=	Net profit in year t
$CFO_t$	=	Cash flow from operating activities in year t
$TCA_t$	=	Total accruals in year t
$A_{t-1}$	=	Total assets of the company in year t-1
$\Delta REV_t$	=	Changes in the company's net revenue in year t
$\Delta REC_t$	=	Changes in the company's net receivable in year t
$PPE_t$	=	Gross Property, Plant and Equipment of the company in year t
$DA_{jt}$	=	Discretionary Accruals

Managerial ownership (MAN) refers to the total shareholding of the company held by its commissioners, directors, and managers. To measure managerial ownership, a dummy variable with a ratio scale is used, following the methodology outlined by Firnanti et al. [14]. In this approach, a value of 1 is assigned to companies with managerial ownership, while a value of 0 is assigned to firms without any managerial ownership.

Family ownership (FAM) refers to the ownership of a company's shares by family members who manage funds on behalf of others. Family ownership is measured by total percentage of family shares. The members of the family were identified by their surname (blood relation) or by the fact that they were married to the major shareholder or founder of the company [15]. Foreign companies were not taken into consideration [7]. The formula used to calculate institutional ownership is as follows:

This study uses several control variables to control the condition of companies. To control the financial condition of companies, this study uses leverage (LEV), profitability (ROA), firm size (SIZE), and sales growth (SG). Leverage is measured by debt to asset [16], profitability is measured by return on asset [17]. Firm size is measured by natural logarithm of total asset [17], [18]. Sales growth is measured by the difference between total sales in year t and total sales in the previous year compared to total sales in the previous year [14].

To control the monitoring power of companies, this study uses board size (BS) and audit quality (AQ). Board size is measured by the number of commissioner [19] and audit quality is a dummy variable (a value of 1 indicates that the company's audit was conducted by a Big Four accounting firm, 0 otherwise) [20].

Regression model that used in this research are:

$$EM = \alpha + \beta_1 MAN + \beta_2 FAM + \beta_3 SIZE + \beta_4 LEV + \beta_5 ROA + \beta_6 SG + \beta_7 AQ + \beta_8 BS + \varepsilon$$

Where:

EM	= Earnings Management
MAN	= Managerial ownership
FAM	= Family ownership
SIZE	= Firm size
LEV	= Leverage
ROA	= Return on assets
SG	= Sales growth
AQ	= Audit quality
BS	= Board size
E	= Error

### 3. RESULT AND DISCUSSION

Table 1 shows the sample selection results. It is shown that this paper uses 195 observations from 66 firms due to outlier data.

**Table 1. Sample Selection Procedures**

No.	Criteria Description	Total Companies	Total Data
1.	Consumer non-cyclical and cyclical companies listed on the Indonesia Stock Exchange (IDX) consistently	192	576
2.	Consumer non-cyclical and cyclical companies that do not have closing date ending on December 31 for one accounting period	(47)	(141)
3.	Consumer non-cyclical and cyclical companies that do not use rupiah as currency of financial statement	(24)	(72)
4.	Consumer non-cyclical and cyclical company that do not consistently earn profit after-tax	(55)	(165)
Number of Samples Firms Used			198
Outlier Data			(3)
Number of Samples Firms Used After Outlier			195

This study employed STATA's fixed effect panel data multiple regression analysis. As we can see in Table 2, heteroskedasticity concerns exist. Thus, this study used robust fixed effect panel data multiple regression analysis to remove heteroscedasticity issues.

**Table 2. Classical Assumption Test**

Multicollinearity Test	Variable	VIF
	MAN	1.111
	INST	2.074
	FOWN	1.832
	SIZE	2.169
	LEV	1.249
	ROA	1.106
	SG	1.045
	AQ	1.520
	BOD	1.706
	<b>Sig</b>	
Heteroscedasticity Test		0.000

Source: Processed data by Stata (2024)

Table 3-5 show descriptive statistics of the research. It is shown that most of the samples have managerial ownership and audited by non big 4 accounting firms. The mean level of family ownership is only 7%, showing less percentage of family ownership.

**Table 3. Descriptive Statistic**

	N	Minimum	Maximum	Mean	Std. Deviation
EM	195	-0.24898278	0.30804227	0.00000000	0.08017177
MAN	195	0	1	0.70	0.458
FAM	195	0.00000000	0.80800737	0.07109542	0.18271004
SIZE	195	26.28276592	32.82638230	29.22975891	1.51148920
LEV	195	0.00041743	0.81526275	0.39971761	0.18899926
ROA	195	0.00011160	0.34885144	0.07589848	0.06061128
SG	195	-0.17946839	1.90854623	0.09999613	0.21070122
AQ	195	0	1	0.47	0.500
BS	195	2	12	5.19	1.997

Source: Processed data by Stata (2024)

**Table 4. Managerial Ownership**

	Frequency	Percent	Valid Percent	Cumulative Percent
No Managerial Ownership (0)	58	29.7	29.7	29.7
Has Managerial Ownership (1)	137	70.3	70.3	100.0
Total	195	100.0	100.0	

Source: Processed data by Stata (2024)

**Table 5. Audit Quality**

	Frequency	Percent	Valid Percent	Cumulative Percent
Audited by Non-big 4 (0)	103	52.8	52.8	52.8
Audited by Big 4 (1)	92	47.2	47.2	100.0
Total	195	100.0	100.0	

Source: Processed data by Stata (2024)

Table 6 indicates that there is no statistically significant correlation between managerial ownership, foreign ownership, and earnings management. This study also conducts an independent sample t-test to determine if there is a disparity in earnings management between companies with managerial ownership and those without managerial ownership, as well as between companies with family ownership and those without family ownership. Consequently, there is no discernible distinction among those sets of samples. However, those tests are conducted without taking control variables into account in a single model. Thus, hypothesis test is needed.

**Table 6. Pairwise correlations**

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) EM	1.000								
(2) MO	-0.090	1.000							
(3) FO	0.084	0.229*	1.000						
(4) SIZE	-0.179	0.064	-0.202*	1.000					
(5) LEV	-0.133	0.041	-0.125	0.261*	1.000				
(6) ROA	-0.104	-0.055	-0.036	0.086	-0.102	1.000			
(7) SG	0.086	-0.019	-0.042	0.128	0.159	0.010	1.000		
(8) AQ	-0.255*	-0.037	-0.149	0.522*	0.169	0.244*	0.002	1.000	
(9) BS	-0.227*	0.096	-0.129	0.636*	0.196*	0.057	0.070	0.328*	1.000

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ 

Source: Processed data by Stata (2024)

Table 7 shows the hypothesis test result. The results of the hypothesis test indicate that both managerial ownership and family ownership have positive impact on earnings management. The results corroborate the hypotheses of this work and align with earlier research that supports the entrenchment theory [5], [21], [22].

During times of crisis, it is common for majority shareholders who also hold managerial positions in companies to engage in financial statement fraud as a means of gaining legitimacy from stakeholders. When faced with challenging external circumstances, organizations will strive to excel. In order to secure their position, managers will leverage their authority as owners to establish a stronger foothold, hence creating more opportunities for opportunistic behavior [23]. On one hand, controlling families have the ability to exert influence over organizations, compelling them to take measures that favor majority shareholders. This might include pressuring management to manipulate earnings [22].

For the control variables, Table 7 shows that board of commissioner size has negative effect on accrual earnings management during COVID 19. It can be concluded that the effective monitoring mechanism for accrual earnings management during COVID 19 is board of commissioner.

**Table 7. Hypothesis Test Result**

VARIABLES	B
MO	0.0339** (0.0151)
FO	0.0524* (0.0393)
SIZE	0.00526 (0.00750)
LEV	-0.0342 (0.0452)
ROA	-0.0400 (0.103)
SG	0.0118 (0.0177)
AQ	-0.0125 (0.0222)
BS	-0.0125** (0.00557)
Constant	-0.0947 (0.205)
Observations	195
Number of ID	66
F	6.65
Prob>F	0.000
R-squared	0.041

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Source: Processed data by Stata (2024)

The implication of this research is minority investors need to be careful in reading financial statements in COVID-19 period, especially in family-owned companies and manager-owned companies. Investors cannot solely depend on the profitability figure; they must consider additional information to assess the overall performance of the companies. Investing in companies with strong corporate governance and a large number of commissioners is crucial, as research indicates that a higher number of commissioners has a detrimental impact on earnings management. OJK also has to be aware of this situation as entrenchment effect is more visible than incentive-alignment effect during COVID 19. This situation calls for stringent regulations and penalties from OJK, and ethics teaching for business students [24].

## 4. CONCLUSION

### 4.1. Conclusion

Companies commonly engage in earnings management to enhance the appearance of their financial statements amid the COVID-19 problem. When shareholders also hold managerial position, they often exploit their capacity as a manager to engage in profits management. This occurrence is common in organizations that have managerial ownership and family ownership. This study examines the impact of managerial and family ownership on the practice of manipulating accrual profits during the COVID-19 pandemic. As predicted, both managerial and family ownership have a beneficial impact on the practice of accrual earnings management. The findings indicate

that owners are implementing entrenchment strategies as a last resort. Investors and the OJK should be cognizant of this behavior, particularly in light of the COVID-19 pandemic.

#### 4.2. Limitation and Suggestion

This study has some limitations. First, this study just utilizes data solely from Indonesia. Given that numerous other nations exhibit a prevalence of management ownership and family ownership, the findings of this study may be applicable to countries sharing similar characteristics. Subsequent research should aim to reproduce these findings in different nations. Second, there exists many types of financial statement fraud, like income smoothing and large bath. Subsequent research could investigate the impact of ownership on various types of financial statement fraud during the COVID-19 pandemic. Last, the research focuses specifically on the unique challenges presented by the COVID-19 pandemic. Hence, it is crucial to acknowledge that the outcomes of this investigation might depend on the particular conditions under which it was carried out and may not directly apply to other emergency scenarios or periods unrelated to a pandemic environment.

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