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Female in board and earnings management: Evidence in Indonesia non-financial firms

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Abstract

The purpose of this study is to analyze the effect of females on the board on earnings management in Indonesia's Non-Financial Firms. Females on the board comprise of females in the board of commissioners, females in the board of directors, and females in the audit committee. This study also breakdown the full sample into small, medium, and large firms. The sample of this study consists of 291 non-financial firms listed in the Indonesia Stock Exchange over the period 2015-2017. This study measures earnings management using discretionary accruals. The data were analyzed using panel data regression. This study found that females in the board of commissioners, females in the board of directors, and females in the audit committee do not affect earnings management. This study also found that females in the board of directors in small firms have a positive effect on earnings management and have a negative effect on medium firms. This study contributes to the role of females in corporate governance in Indonesia's non-financial firms to reduce earnings management.

Abstrak

Tujuan dari penelitian ini adalah untuk menganalisis pengaruh wanita di dalam dewan suatu Perusahaan terhadap manajemen laba di Perusahaan Non-Keuangan Indonesia. Anggota dewan wanita terdiri dari wanita di dewan komisaris, wanita di dewan direksi, dan wanita di komite audit. Studi ini juga memecah sampel menjadi perusahaan kecil, menengah, dan besar. Sampel penelitian ini terdiri dari 291 perusahaan non-keuangan yang terdaftar di Bursa Efek Indonesia selama periode 2015-2017. Penelitian ini mengukur manajemen laba dengan menggunakan akrual diskresioner. Analisis data menggunakan regresi data panel. Studi ini menemukan bahwa wanita di dewan komisaris, wanita di dewan direksi, dan wanita di komite audit tidak mempengaruhi manajemen laba. Studi ini juga menemukan bahwa wanita di dewan direksi pada perusahaan kecil berpengaruh positif terhadap manajemen laba dan berpengaruh negatif pada perusahaan menengah. Studi ini berkontribusi pada peran wanita dalam tata kelola perusahaan di perusahaan non-keuangan Indonesia untuk mengurangi manajemen laba.

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1. Introduction

The issue of earning management is still a primary concern of investors, especially on investor confidence and transparency in financial statement reporting. The financial statements have the aim of providing a summary of firm financial information to internal and external users (Handoyo & Agustianingrum, 2017). Griselda & Sjarief (2019) suggested that financial statements are media for stakeholders to see the firm's performance. The information asymmetry between the firm's principal and management causes the firm's management to manage earnings in its financial statements to meet his interests. Kapoor & Goel (2017) suggested that problems arise when management chooses the accounting methods used to achieve their benefits and eliminate transparency in financial statements.

An increasingly large firm makes the principal of the firms unable to manage their firm. The principal of the firm's needs management to manage their firms, and this causes separation between the principal and management (Yunianto, 2013). Jensen & Meckling (1976) suggest that the separation between principal and management can lead to agency conflict. Agency conflict occurs because management can make decisions following their interests and can harm the principal of the firms (Fama & Jensen, 1983). Jensen & Meckling (1976) also suggested that the separation between principal and management can lead to information asymmetry caused by management knowing more information about the firm's condition compared to the principal of the firms. Yunianto (2013) suggested that financial statements are needed to overcome the problem of information asymmetry.

In the last decade, people argue that gender differences between males and females determine leadership abilities. Men and women will inevitably have different experiences and backgrounds, which shape their approach to meet the principal's demand. In the last 15 years, Grant Thornton (2020) reports that the proportion of women in senior

management has risen by ten percentage points. This fact is also supported by Saona et al. (2019) conclude that women are more adept at business ethics and risk aversion, which has a beneficial effect on reducing earning management. Lakhal et al. (2015) also said that women are effective in their monitoring role and considered as a crucial corporate governance device. Corporate governance is needed to reduce earnings management.

Corporate governance is a process and structure used to protect the interests of shareholders (Ehikioya, 2009). The OECD (2015) suggested that corporate governance is a framework to achieve the firm goals and monitor specified performance, and ensure effective management monitoring and accountability to shareholders. Hassan et al. (2017) defined corporate governance as internal and external systems, regulations, and practices that direct and controlled the firm to ensure the interests of stakeholders. Corporate governance is needed to reduce the existence of earnings management. Setiawan (2018) stated that quality financial reports could be produced through quality corporate governance as well. Khan et al. (2019) suggested that the function of corporate governance is to ensure the credibility of financial statements. Asward & Lina (2015) suggested that good corporate governance can serve as a control tool to minimize agency conflict. Setiawan (2018) stated that corporate governance in Indonesia uses a two-board system, namely the board of directors, whose job is to run the firm and the board of commissioners whose job is to supervise the board of directors.

The first factor related to the firm's board of commissioners is the board of commissioners with the female gender. The board of commissioners is responsible for supervising the board of directors. The characteristics of women as a commissioner can reduce the firm's earning management. This is supported by Hala (2019) that said female commissioners are able to provide better supervision and able to align management interests and stakeholders. The opposite was obtained from research conducted by

Setiawan (2018), and Soebyakto et al. (2018) found that female commissioners had no effect on earnings management.

The second factor related to the firm's board of directors of concern is the management of firms that have female gender. The characteristics of women as firm management can reduce the firm's earnings management. Saona et al. (2019) suggested that female characters are more risk-averse and conservative compared to men. Previous studies relating to the influence of gender of the board of directors on earnings management conducted by Hala (2019) found that women in upper management had a negative effect on earnings management. This is also supported by research conducted by Harakeh et al. (2019) and Kim et al. (2017). The opposite is obtained from research conducted by Ye et al. (2010) found that there is no difference in earnings quality in firms managed by men and women. Peni & Vähämaa (2010) suggested that the gender of the CEO has no effect on earnings management. This was also supported by Lakhali et al. (2015), who found that the gender of the CEO and CFO had no effect on earnings management

The third factor that can reduce earnings management is the gender of the audit committee. The characteristics of women on the audit committee can reduce earnings management. This is supported by research conducted by Thiruvadi & Huang (2011), Qi & Tian (2012), Salleh et al. (2012), Susanto (2016), and Florencea & Susanto (2019). The opposite was obtained from research conducted by Loualalen et al. (2015), and Abdullah & Ismail (2016) found that gender on the audit committee had no effect on earnings management. Kusumaningtyas et al. (2019) also found that the gender of the audit committee had no effect on earnings management.

The results of previous studies show inconsistent results on the influence of females in the board of commissioners, females in the board of directors, female in the audit committee on earnings management. This research was carried out

with the increasing number of women in the firm's senior management increasing from year to year (Grant Thornton, 2020). The second reason is the kinship system on the board of commissioners and board of directors in Indonesia, which allows members of the board of commissioners and members of the board of directors to be family members (Murhadi, 2009).

This study contributes to the role of females in corporate governance in Indonesia's non-financial firms to reduce earnings management. The first objective of this study is to analyze the influence of females on the board of commissioners on earnings management. The second objective is to analyze the influence of females in the board of directors on earnings management. The third objective is to investigate the effect of the females on the audit committee in earnings management. In this study, we also breakdown and analyze the full sample into small firms, medium firms, and large firms. We breakdown of the full sample is due to the different levels of earnings management in small, medium, and large firms.

2. Hypotheses Development

Female in board of commissioners and earnings management

The female in the commissioner board is the commissioner of a firm that has female gender. The Board of Commissioners is in charge of supervising management policies, the course of management in general, both regarding the company and the company's business carried out by the Board of Directors (Otoritas Jasa Keuangan, 2014). Women in top supervisory have the ability to improving revenue information by reducing earnings management that creates blurred information (Hala, 2019). The risk-averse and conservatism characteristics of women allowed them to carry out surveillance tasks more objectively (Salleh et al., 2012). Soebyakto et al. (2018) stated that women on the board of com-

missioners could be improved control over the management due to better enforce regulations more rigorously and more equitable than the male. This is supported by research conducted by Kyaw et al. (2015) stated that gender diversity on the board of commissioners could reduce the likelihood of earnings management.

H_1 : More female presence on the board of commissioners has a negative effect on earnings management

Female in board of directors and earnings management

The female in the board of directors is the leader of a firm that has female gender. Female in the board of directors can reduce earnings management caused by several characteristics; namely, the woman has more risk-averse nature than men so that they avoid risk in earnings management more, besides that women also view work as a source for self-development, while men focus more on progress and compensation (Gavious et al., 2012). Saona et al. (2019) also suggested that women have more quality in preparing financial statements and smaller earnings management because women have more risk-averse and conservative characteristics compared to men. Lakhali et al. (2015) suggested that the presence of women had a positive impact on corporate governance caused by women tending to be more ethical and more conservative than men to cause earnings management to decline. The presence of women in firm leaders also indicates the existence of gender diversity in firm leaders that can prevent specific individuals or groups from dominating the decision-making process (Lakhali et al., 2015). This is also supported by research conducted by Hala (2019) and Harakeh et al. (2019), who found that women in upper management can reduce earnings management. Kim et al. (2017) also found that female in management board had a negative effect on earnings management

H_2 : More female presence on the board of directors has a negative effect on earnings management

Female in the audit committee and earnings management

The female in the audit committee is an audit committee of a firm that has female gender. The audit committee is a committee formed and is responsible for the firm's board of directors (Otoritas Jasa Keuangan, 2015). Women's audit committees can reduce earnings management caused by women having a more ethical and conservative nature than men (Lakhali et al., 2015). Saona et al. (2019) and Gavious et al. (2012) suggested that women have a more risk-averse and conservative nature. Salleh et al. (2012) suggested that women can provide different perspectives and opinions on discussions, have high moral standards, and be more trustworthy. Salleh et al. (2012) also suggested that the presence of women can improve the function and efficiency of committees. Sun et al. (2011) stated that if audit committee members who had female gender would act against earnings management because they believed that earnings management was unethical. This is supported by research conducted by Zalata et al. (2018), Salleh et al. (2012), Thiruvadi & Huang (2011), who found that women's audit committees can reduce earnings management. Florencea & Susanto (2019) and Susanto (2016) also found that women's audit committees can reduce earnings management in manufacturing firms in Indonesia.

H_3 : More female presence on the audit committee has a negative effect on earnings management

3. Method, Data, and Analysis

This study used secondary data in the form of unbalanced panel data during the 2015-2017 periods. Annual reports and financial statements were obtained from the Indonesian Stock Exchange (IDX). The population of this research is non-financial firms listed on the IDX, and samples in this study was taken using purposive sampling with the following criteria: (1) The firm listed in IDX during 2014-2017 periods; (2) The financial statement listed in rupi-

Female in board and earnings management: Evidence in Indonesia non-financial firms

Sofian, S, Patricia Febrina Dwijayanti, Hendra Wijaya

ahs; (3) The firms have complete data for this research. The total samples obtained are 311 firms and 826 observations. The sample selection criteria of this research showed in Table 1.

Data on this research were analyzed using panel data regression with the regression model as follow:

$$EM_{it} = \alpha + \beta_1 FC_{it} + \beta_2 FD_{it} + \beta_3 FA_{it} + \beta_4 BS_{it} + \beta_5 IB_{it} + \beta_6 PR_{it} + \beta_7 LV_{it} + \beta_8 SZ_{it} + \varepsilon \dots\dots\dots (1)$$

Where, *EM*= earnings management; *FC*= female in the board of commissioners; *FD*= female in the board of directors; *FA*: female in the audit committee; *BS*= board size; *IB*= independent board; *PR*= profitability; *LV*= leverage; *SZ*= firm size

The dependent variable used for this research is earnings management (*EM*). We measure the earnings management in this study through discretionary accruals by using the Modified Jones Model. The independent variables used for this research are females in the board of commissioners (*FC*), females in the board of directors (*FD*), and females in the audit committee (*FA*). *FC* was measured the number of females in the board of commissioners divided by the number of the board of commissioners members. *FD* was measured by the number of females in the board of directors divided with the number of the board of directors member. *FA* was measured by the number of female in the audit com-

mittee divided by the number of the audit committee member,

There are five control variables used in this study, which are board size (*BS*), independent board (*IB*), profitability (*PR*), leverage (*LV*), and firm size (*SZ*). *BS* was measured by the number of the board of commissioners members. *IB* was measured by the number of independent boards divided by the number of board of commissioners member, *PR* was measured by the return on asset, which is net income divided by total assets. *LEV* was measured by the net income divided by total assets. *SZ* was measured by the logarithm of total assets. The equation of variables showed in Table 2.

4. Results

Analysis

This study wants to analyze the effect of female representation on the board of commissioners, the board of directors, and the audit committee on earnings management. The descriptive statistics of this research showed in Table 3.

Table 3 shows the descriptive statistics in this study. The descriptive statistics consist of mean, standard deviation, maximum, and minimum. Table 3 shows that the mean of the *EM* was 0.0127. The mean of the *FC* was 0.1128. It indicated that 11.28 percent of the board of commissioners are female. The mean of the *FD* was 0.1438. It indicated that

Table 1. Sample selection criteria

Criteria	Total
Population: non-financial firms listed on the IDX during 2015-2017	520
The firms that do not meet the criteria of purposive sampling:	
(1) The firm listed in IDX during 2014-2017 periods	5
(2) The firm has complete data	8
(3) The financial statement listed in rupiahs	196
The firms that meet the criteria of purposive sampling	311
Observation period	3
Total observation	933
Outlier	107
Total sample	826

14.38 percent of the board of directors are female. The mean of the *FA* was 0.1738. It indicated that the proportion of females in the audit committee is 17.38 percent.

Table 3 shows that the mean of *BS* was 4.1780 and indicated that the mean of the number of board of commissioners members is 4 in a firm. The mean of the *IB* was 0.4030. It indicated that 40.30 percent

of the board of commissioners are independent. The mean of the *PR* was 0.0314, and it means that on average, the firm gets a net income of 3.14 percent from the total asset. The mean of the *LV* was 0.4480, and it means that the firm finances its asset with 44.80 percent debt. The mean of the *SZ* was 12.3902, and it means that the mean of the total asset was 7,595,854 million rupiahs.

Table 2. Research variables

Variables	Equation	Sources
<i>EM</i>	Discretionary Accruals (Modified Jones Model)	Griselda & Sjarief (2019)
<i>FC</i>	Number of female in the board of commissioners	Setiawan (2018)
<i>FD</i>	Number of board of commissioners members Number of female in the board of directors	Gavious et al. (2012)
<i>FA</i>	Number of board of directors members Female in the audit committee	Thiruvadi & Huang (2011)
<i>BS</i>	Number of the audit committee members Number of board of commissioners members	Ehikioya (2009) Lakhal et al. (2015)
<i>IB</i>	Number independent commissioners in the board of commissioners Number of board of commissioners members	Handoyo & Agustianingrum (2017) Kapoor & Goel (2017)
<i>PR</i>	Net income	Lakhal et al. (2015)
<i>LV</i>	Total asset Total debt	Lakhal et al. (2015)
<i>SZ</i>	Total asset Logarithm (total asset)	Ehikioya (2009) Alzoubi (2016)

Table 3. Descriptive statistics

Variables	N	Mean	Std. dev	Max	Min
<i>EM</i>	826	0.0127	0.0740	0.2815	-0.2378
<i>FC</i>	826	0.1128	0.1883	1.0000	0.0000
<i>FD</i>	826	0.1438	0.1888	1.0000	0.0000
<i>FA</i>	826	0.1738	0.2375	1.0000	0.0000
<i>BS</i>	826	4.1780	1.6627	10.0000	2.0000
<i>IB</i>	826	0.4030	0.0962	0.7500	0.2000
<i>PR</i>	826	0.0314	0.0682	0.2731	-0.2099
<i>LV</i>	826	0.4480	0.2095	1.0504	0.0076
<i>SZ</i>	826	12.3902	0.6947	14.2206	10.3209
Size (in Million Rp)	826	7,595,853.6895	13,826,626.5499	166,173,000.0000	20,936.6191

Note: *EM*= Earnings Management; *FC*= Female in the board of commissioners; *FD*= Female in the board of directors; *FA*= Female in the audit committee; *BS*= Board Size; *IB*= Independent Board; *PR*= Profitability; *LV*= Lev; *SZ*= Size.

Female in board and earnings management: Evidence in Indonesia non-financial firms

Sofian, S, Patricia Febrina Dwijayanti, Hendra Wijaya

Small firms

Variables	N	Mean	Std. dev	Max	Min
EM	207	0.0134	0.0772	0.2815	-0.1853
FC	207	0.1132	0.2131	1.0000	0.0000
FD	207	0.1626	0.2300	1.0000	0.0000
FA	207	0.2291	0.2688	1.0000	0.0000
BS	207	3.1787	1.0981	8.0000	2.0000
IB	207	0.3913	0.0917	0.7500	0.2500
PR	207	0.0071	0.0641	0.2731	-0.1533
LV	207	0.4197	0.2252	1.0504	0.0335
SZ	207	11.4980	0.3143	11.8817	10.3209
Size (in Million Rp)	207	384,047.4937	200,863.1465	761,521.8349	20,936.6191

Note: EM= Earnings Management; FC= Female in the board of commissioners; FD= Female in the board of directors; FA= Female in the audit committee; BS= Board Size; IB= Independent Board; PR= Profitability; LV= Lev; SZ= Size.

Medium firms

Variables	N	Mean	Std. dev	Max	Min
EM	412	0.0136	0.0759	0.2813	-0.2352
FC	412	0.1323	0.1999	1.0000	0.0000
FD	412	0.1460	0.1800	0.7500	0.0000
FA	412	0.1541	0.2286	1.0000	0.0000
BS	412	4.0364	1.4752	10.0000	2.0000
IB	412	0.4082	0.0980	0.7500	0.2000
PR	412	0.0385	0.0723	0.2615	-0.2099
LV	412	0.4353	0.2040	0.9332	0.0235
SZ	412	12.3901	0.2834	12.8806	11.8824
Size (in Million Rp)	412	3,010,099.8195	1,891,595.6198	7,596,268.0000	762,773.1100

Note: EM= Earnings Management; FC= Female in the board of commissioners; FD= Female in the board of directors; FA= Female in the audit committee; BS= Board Size; IB= Independent Board; PR= Profitability; LV= Lev; SZ= Size.

Large firms

Variables	N	Mean	Std. dev	Max	Min
EM	207	0.0104	0.0671	0.2449	-0.2378
FC	207	0.0735	0.1205	0.6000	0.0000
FD	207	0.1208	0.1559	0.6250	0.0000
FA	207	0.1578	0.2128	0.6667	0.0000
BS	207	5.4589	1.6829	10.0000	2.0000
IB	207	0.4044	0.0965	0.7500	0.2000
PR	207	0.0414	0.0573	0.2068	-0.1548
LV	207	0.5018	0.1948	1.0337	0.0076
SZ	207	13.2823	0.2724	14.2206	12.8878
Size (in Million Rp)	207	23,934,960.8247	19,896,512.3960	166,173,000.0000	7,723,578.6770

Note: EM= Earnings Management; FC= Female in the board of commissioners; FD= Female in the board of directors; FA= Female in the audit committee; BS= Board Size; IB= Independent Board; PR= Profitability; LV= Lev; SZ= Size.

Table 3 also shows the descriptive statistics for small, medium, and large firms. The *EM* and independent board for the small, medium, and large firms showed similar mean. Medium firms have more females on the board of commissioners than small and large firms. Small firms have more females on the board of directors and audit committees than medium and large firms. Large firms have a larger board size, better profitability, more debt than small and medium firms.

Table 4 showed that the correlation analysis in this study. The correlation analysis showed that the correlation of *FD* to *FC* was 0.0592, *FA* to *FC* was 0.2676, *FA* to *FD* was 0.0519. The correlation between *BS* to *FC* -0.0744, *BS* to *FD* was 0.0018, *BS* to *FA* -0.0963. The correlation between *IB* to *FC* was -0.0293, *IB* to *FD* was -0.0413, *IB* to *FA* -0.0493, *IB* to *BS* was -0.1039. The correlation between *PR* to *FC* -0.0251, *PR* to *FD* was 0.0194, *PR* to *FA* was 0.0065, *PR* to *BS* was 0.1338, *PR* to *IB* was -0.0627. The cor-

Table 4. Correlation analysis

	<i>EM</i>	<i>FC</i>	<i>FD</i>	<i>FA</i>	<i>BS</i>	<i>IB</i>	<i>PR</i>	<i>LV</i>	<i>SZ</i>
<i>EM</i>	1.0000								
<i>FC</i>	0.0278	1.0000							
<i>FD</i>	-0.0152	0.0592	1.0000						
<i>FA</i>	0.0360	0.2676***	0.0519	1.0000					
<i>BS</i>	-0.0238	-0.0744**	0.0018	-0.0963***	1.0000				
<i>IB</i>	0.0085	-0.0293	-0.0413	-0.0493	-0.1039***	1.0000			
<i>PR</i>	0.2222***	-0.0251	0.0194	0.0065	0.1338***	-0.0627	1.0000		
<i>LV</i>	-0.1242***	0.0122	-0.1534***	-0.0833	0.0848**	0.0324	-0.2797***	1.0000	
<i>SZ</i>	-0.0376	-0.0713**	-0.0861**	-0.1034***	0.5448***	0.0006	0.2076***	0.1504***	1.0000

Note: *EM*= Earnings Management; *FC*= Female in the board of commissioners; *FD*= Female in the board of directors; *FA*= Female in the audit committee; *BS*= Board Size; *IB*= Independent Board; *PR*= Profitability; *LV*= Lev; *SZ*= Size. *** = significance at 1% level, ** = significance at 5% level

Table 5. Regression results

Variable	Full Sample	Small Firms	Medium Firms	Large Firms
<i>FC</i>	-0.0116 (-0.2472)	0.0910 (0.9329)	-0.0450 (-0.7041)	-0.0124 (-0.1132)
<i>FD</i>	0.0186 (0.4414)	0.2763 (3.2192)***	-0.1660 (-2.7655)***	-0.0737 (-0.8341)
<i>FA</i>	0.0075 (0.2808)	-0.0723 (-1.4456)	0.0515 (1.2175)	0.0065 (0.1451)
<i>BS</i>	0.0014 (0.2246)	-0.0134 (-0.6730)	0.0018 (0.1619)	-0.0057 (-0.8701)
<i>IB</i>	0.0180 (0.3228)	0.1113 (0.8173)	-0.0154 (-0.2014)	-0.0252 (-0.2692)
<i>PR</i>	0.4588 (5.3436)***	0.2355 (1.3141)	0.7051 (5.2742)***	0.5085 (3.2562)***
<i>LV</i>	-0.0332 (-0.7038)	-0.0726 (-0.7961)	-0.0552 (-0.7184)	0.0336 (0.4057)
<i>SZ</i>	0.1538 (3.5631)***	0.2666 (2.1702)**	0.2185 (3.1218)***	0.0475 (0.5966)
<i>N</i>	826	207	412	207
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Adj. R ²	0.2590	0.1792	0.3012	0.5388
F-statistic	1.9610***	1.5169**	2.0544***	3.7040***

Note: *FC*= Female in the board of commissioners; *FD*= Female in the board of directors; *FA*= Female in the audit committee; *BS*= Board Size; *IB*= Independent Board; *PR*= Profitability; *LV*= Lev; *SZ*= Size.

Female in board and earnings management: Evidence in Indonesia non-financial firms

Sofian, S, Patricia Febrina Dwijayanti, Hendra Wijaya

relation between *LV* and *FC* was 0.0122, *LV* to *FD* was -0.1534, *LV* to *FA* was -0.0833, *LV* to *BS* was 0.0848, *LV* to *IB* was 0.0324, *LV* to *PR* was -0.2797. The correlation between *SZ* to *FC* was -0.0713, *SZ* to *FD* was -0.0861, *SZ* to *FA* was -0.1034, *SZ* to *BS* was 0.5448, *SZ* to *IB* was 0.0006, *SZ* to *PR* was 0.2076, *SZ* to *LV* was 0.1504. The correlation analysis showed no multicollinearity between the variables.

This research analyzes the data with panel data regression. In panel data regression, we choose the best estimator between common effect, fixed effect, and random effect. To determine the best estimator between common effect and fixed effect, we use the Chow test, and the result is a fixed effect was chosen. The next step is to choose between a fixed effect and random effect with the Hausmann test, and a fixed effect was chosen, so we analyze the data in this research with panel data regression with fixed effect estimators.

Table 5 in this study showed that the more female presence in the board of commissioners, the board of directors, and the audit committee had no effect on earnings management, so the first, second, and the third hypothesis of this research is rejected.

In this study, we breakdown the sample into three categories of small firms, medium firms, and large firms. In small firms showed that the female in the board of directors had a positive effect on earnings management and in medium firms showed that the female in the board of directors had a negative effect on earnings management.

Robustness test

Table 6 and Table 7 are the robustness test in this study. The robustness test showed that the more female presence in the board of commissioners, the board of directors, and the audit committee had no effect on earnings management, so the first, second,

Table 6. Robustness Test-Regression Results (female in the board of commissioners, the board of directors, and the audit committee measured by dummy variables)

Variable	Full Sample	Small Firms	Medium Firms	Large Firms
<i>FC</i>	-0.0115 (-0.6640)	0.0554 (1.0605)	-0.0148 (-0.6156)	-0.0563 (-1.6638)
<i>FD</i>	-0.0060 (-0.4035)	0.0431 (1.3231)	-0.0262 (-1.2423)	-0.3775 (-1.5995)
<i>FA</i>	-0.0010 (-0.0831)	-0.0597 (-2.2370)**	0.0225 (1.2585)	0.0183 (1.0908)
<i>BS</i>	0.0019 (0.3066)	-0.0144 (-0.7065)	0.0036 (0.3127)	-0.0011 (-0.1697)
<i>IB</i>	0.0182 (0.3269)	0.0964 (0.6992)	-0.0102 (-0.1318)	-0.0233 (-0.2572)
<i>PR</i>	0.4592 (5,3490)***	0.2648 (1.4444)	0.7140 (5.2395)***	0.4877 (3.1886)***
<i>LV</i>	-0.0353 (-0.7515)	-0.0990 (-1.0522)	-0.0445 (-0.5774)	0.0430 (0.5320)
<i>SZ</i>	0.1549 (3.5866)***	0.2480 (1.9543)	0.2108 (2.9796)***	0.0312 (0.4051)
<i>N</i>	826	207	412	207
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Adj. R ²	0.2593	0.1541	0.2830	0.5581
F-statistic	1.9628***	1.4315**	1.9657***	3.9236***

Note: *FC*= Female in the board of commissioners; *FD*= Female in the board of directors; *FA*= Female in the audit committee; *BS*= Board Size; *IB*= Independent Board; *PR*= Profitability; *LV*= Lev; *SZ*= Size.

*** = significance at 1% level, ** = significance at 5% level

the third hypothesis of this research is rejected. The robustness test with dummy variable measurements showed inconsistent results. Table 6 showed that the more female present in the audit committee for small firms had a negative effect on earnings management. The robustness test with the number of females on board showed consistent results with the main regression in Table 5. Table 7 showed that the female in the board of directors had a positive effect on earnings management and in medium firms showed that the female in the board of directors had a negative effect on earnings management.

2. Discussion

Female in the board of commissioners and earnings management

The results of this study indicate that more female presence on the board of commissioners does

not affect earnings management. This shows that earnings management is not influenced by the gender of the female on the board of commissioners. Descriptive statistics of this study also showed that the average proportion of females in the board of commissioners in firms was still small and only amounted to 11.28 percent so that females in the board of commissioners of existing firms were still unable to reduce earnings management. This study also shows that there is no difference in ethical values and risk appetites between men and women in Indonesia. Another reason could be due to the existence of a kinship system between the board of commissioners and the board of directors in Indonesia, so that gender does not affect earnings management. The results of this study are supported by research conducted by Setiawan (2018) and Soebyakto et al. (2018), who also found that the gender of the board of commissioners did not affect corporate earnings management. The results of

Table 7. Robustness Test-Regression Results (female in the board of commissioners, the board of directors, and the audit committee measured by the number of females)

Variable	Full Sample	Small Firms	Medium Firms	Large Firms
<i>FC</i>	-0.0044 (-0.3658)	0.0330 (0.9629)	-0.0103 (-0.5853)	-0.0043 (-0.2521)
<i>FD</i>	-0.0024 (-0.2501)	0.0665 (2.6301)***	-0.0311 (-2.3515)**	-0.0210 (-1.4316)
<i>FA</i>	0.0003 (0.0368)	-0.0297 (-1.6917)	0.0193 (1.3791)	0.0006 (0.0392)
<i>BS</i>	0.0020 (0.3148)	-0.0183 (-0.8924)	0.0021 (0.1830)	-0.0038 (-0.5057)
<i>IB</i>	0.0189 (0.3381)	0.0884 (0.6448)	-0.0217 (-0.2821)	-0.0160 (-0.1713)
<i>PR</i>	0.4597 (5.3586)***	0.2849 (1.5797)	0.7104 (5.2776)***	0.4929 (3.1626)***
<i>LV</i>	-0.0340 (-0.7237)	-0.0723 (-0.7806)	-0.0442 (-0.5761)	0.0340 (0.4107)
<i>SZ</i>	0.1529 (3.5237)***	0.2485 (1.9853)**	0.2104 (3.0009)***	0.0422 (0.5341)
<i>N</i>	826	207	412	207
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Adj. R ²	0.2587	0.1653	0.2954	0.5441
F-statistic	1.9598***	1.4689**	2.0255***	3.7622***

Note: *FC*= Female in the board of commissioners; *FD*= Female in the board of directors; *FA*= Female in the audit committee; *BS*= Board Size; *IB*= Independent Board; *PR*= Profitability; *LV*= Lev; *SZ*= Size.

*** = significance at 1% level, ** = significance at 5% level

this study contradict the research conducted by Hala (2019), who found that female in the supervisory board negatively affected earnings management

Female in the board of directors and earnings management

The results of this study indicate that the more female presence in the board of directors does not affect earnings management in the full sample. This shows that earnings management is not influenced by the gender of the female on the board of directors. This is because the proportion of women is still small at the top management level in Indonesia. This is also supported by descriptive statistics of this study also showed that the average proportion of females in the board of directors in firms was still small and only amounted to 14.38 percent so that females in the board of directors of existing firms were still unable to reduce earnings management. Another reason could be because, today, women also care about their career progress than in the past. This is indicated by the increasing number of women who are in top management. The results of this study are supported by research conducted by Ye et al. (2010), who also found that the gender of the management board did not affect corporate earnings management. The results of this study contradict the research conducted by Kim et al. (2017), Hala (2019), Harakeh et al. (2019), who found that females in the management board negatively affected earnings management.

The results of this study indicate that the more female presence on the board of directors has a positive effect on earnings management for small firms. This is because small firms do earnings management to avoid losses. This is supported by descriptive statistics of this study also showed that the average of return on assets only 0.71 percent. For medium firms, the result of this study shows the opposite, the female in the board of directors has a negative effect on earnings management.

Female in the audit committee and earnings management

The results of this study indicate that the more female presence in the audit committee does not affect earnings management. This shows that earnings management is not influenced by the gender of the firm's audit committee. Descriptive statistics of this study also showed that the average proportion of females in audit committees in firms was still small and only amounted to 17.38 percent so that the firm's females in the audit committee were still unable to reduce earnings management. The other reason is that the duty of the audit committee is to assists the board of commissioners, and because of the kinship system between the board of commissioners and the board of directors so that gender does not affect earnings management. The results of this study are supported by research conducted by Loualalen et al. (2015) and Abdullah & Ismail (2016), who also found that the gender of the audit committee did not affect corporate earnings management. The results of this study contradict the research conducted by Thiruvadi & Huang (2011), Qi & Tian (2012), and Salleh et al. (2012), who found that females in the board of directors negatively affected earnings management.

3. Conclusion

Based on the previous analysis and discussion, this study concludes that more female presence in the board of commissioners, the board of directors, the audit committee does not affect the reduction in corporate earnings management. This is due to the small proportion of women in corporate governance on Indonesian non-financial firms and the kinship system of the board of commissioners and board of directors. The results of the regression analysis on the control variable indicate a positive effect of profitability and firm size. This means the higher the profit and the larger size of the company, the greater the likelihood of earnings management.

The limitation of this study is that it only analyzes the impact of gender on the board of commissioners, the board of directors, and the audit committee on earnings management. Further research can analyze more deeply the characteristics of the board of commissioners, the board of directors, and

the audit committee, such as educational background, age, and tenure. Future research can also analyze the effect of the characteristics of the board of commissioners, the board of directors, and the audit committee on real earnings management.

References

- Abdullah, S. N., & Ismail, K. N. I. K. (2016). Women directors, family ownership, and earnings management in Malaysia. *Asian Review of Accounting*, 24(4), 525–550. <https://doi.org/10.1108/ARA-07-2015-0067>
- Alzoubi, E. S. S. (2016). Ownership structure and earnings management: Evidence from Jordan. *International Journal of Accounting and Information Management*, 24(2), 135–161. <https://doi.org/10.1108/IJAIM-06-2015-0031>
- Asward, I., & Lina, L. (2015). Pengaruh mekanisme corporate governance terhadap manajemen laba dengan pendekatan conditional revenue model. *Jurnal Manajemen Teknologi*, 14(1), 15–34. <https://doi.org/10.12695/jmt.2015.14.1.2>
- Ehikioya, B. I. (2009). Corporate governance structure and firm performance in developing economies: Evidence from Nigeria. *Corporate Governance: The International Journal of Business in Society*, 9(3), 231–243. <https://doi.org/10.1108/14720700910964307>
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control separation of ownership and control. *Journal of Law and Economics*, 26(2), 301–325. <https://doi.org/10.1086/467037>
- Florencea, N., & Susanto, Y. K. (2019). *Audit Committee: Woman, Experience, Education on Earnings Management*. 73(Aicar 2018), 17–21. <https://doi.org/10.2991/aicar-18.2019.5>
- Gavious, I., Segev, E., & Yosef, R. (2012). Female directors and earnings management in high-technology firms. *Pacific Accounting Review*, 24(1), 4–32. <https://doi.org/10.1108/01140581211221533>
- Grant Thornton. (2020). *Woman in Business 2020: Putting the Blueprint into Action*.
- Griselda, A., & Sjarief, J. (2019). Pengaruh ukuran perusahaan dan corporate governance terhadap earnings management serta dampaknya terhadap earnings quality. *Jurnal Akuntansi*, 13(2), 143–168. <https://doi.org/https://doi.org/10.25170/jara.v13i2>
- Hala, G. S. (2019). Women on boards and earnings management: What really matters? *Jurnal Keuangan dan Perbankan*, 23(4), 566–578. <https://doi.org/10.26905/jkdp.v23i4.3439>
- Handoyo, S., & Agustianingrum, W. B. (2017). GCG role and audit quality in reducing earnings management action in Indonesian manufacturing firms. *Jurnal Keuangan dan Perbankan*, 21(3), 436–445. <https://doi.org/10.26905/jkdp.v21i3.673>
- Harakeh, M., El-Gammal, W., & Matar, G. (2019). Female directors, earnings management, and CEO incentive compensation: UK evidence. *Research in International Business and Finance*, 50, 153–170. <https://doi.org/10.1016/j.ribaf.2019.05.001>
- Hassan, Y., Hijazi, R., & Naser, K. (2017). Does audit committee substitute or complement other corporate governance mechanisms: Evidence from an emerging economy. *Managerial Auditing Journal*, 32(7), 658–681. <https://doi.org/10.1108/MAJ-08-2016-1423>

Female in board and earnings management: Evidence in Indonesia non-financial firms

Sofian, S., Patricia Febrina Dwijayanti, Hendra Wijaya

- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405x\(76\)90026-x](https://doi.org/10.1016/0304-405x(76)90026-x)
- Kapoor, N., & Goel, S. (2017). Board characteristics, firm profitability, and earnings management: Evidence from India. *Australian Accounting Review*, 27(2), 180–194. <https://doi.org/10.1111/auar.12144>
- Khan, M. A., Khidmat, W. Bin, Ullah, F., & Khan, N. U. (2019). Corporate governance and earnings management: The role of board of directors. *Sarhad Journal of Management Sciences*, 5(2), 317–342.
- Kim, H. A., Jeong, S. W., Kang, T., & Lee, D. (2017). Does the presence of female executives curb earnings management? Evidence from Korea. *Australian Accounting Review*, 27(4), 494–506. <https://doi.org/10.1111/auar.12169>
- Kusumaningtyas, M., Chariri, A., & Yuyetta, E. N. A. (2019). Board of commissioners, audit committee gender, institutional ownership and earnings management. *Proceedings of the 5th International Conference on Accounting and Finance (ICAF 2019)*, 102, 103–108. <https://doi.org/10.2991/icafe-19.2019.17>
- Kyaw, K., Olugbode, M., & Petracci, B. (2015). Does gender diverse board mean less earnings management? *Finance Research Letters*, 14, 135–141. <https://doi.org/10.1016/j.frl.2015.05.006>
- Lakhal, F., Aguir, A., Lakhal, N., & Malek, A. (2015). Do women on boards and in top management reduce earnings management? Evidence in France. *Journal of Applied Business Research*, 31(3), 1107–1118. <https://doi.org/10.19030/jabr.v31i3.9236>
- Loualalen, L., Khemakhem, H., & Fontaine, R. (2015). The impact of audit committee characteristics on earnings management: A Canadian case study. *Case Studies in Business and Management*, 2(1), 68–86. <https://doi.org/10.5296/csbn.v2i1.7901>
- Murhadi, W. R. (2009). Studi pengaruh good corporate governance terhadap praktik earnings management pada perusahaan terdaftar di PT Bursa Efek Indonesia. *Jurnal Manajemen dan Wirausaha*, 11(1), 1–10. <https://doi.org/10.9744/jmk.11.1.pp.1-10>
- OECD. (2015). *G20/OECD Principles of Corporate Governance*. <https://doi.org/http://dx.doi.org/10.1787/9789264236882-en>
- Otoritas Jasa Keuangan. (2014). *Direksi dan Dewan Komisaris Emiten atau Perusahaan Publik*. Pub. L. No. 33/POJK.04/2014.
- Otoritas Jasa Keuangan. (2015). *Pembentukan dan Pedoman Pelaksanaan Kerja Komite Audit*. Pub. L. No. 55/POJK.04/2015.
- Peni, E., & Vähämaa, S. (2010). Female executives and earnings management. *Managerial Finance*, 36(7), 629–645. <https://doi.org/10.1108/03074351011050343>
- Qi, B., & Tian, G. (2012). The impact of audit committee's personal characteristics on earnings management: Evidence from China. *Journal of Applied Business Research (JABR)*, 28(6), 1331–1344. <https://doi.org/10.19030/jabr.v28i6.7347>
- Salleh, Z., Hashim, H. A., & Mohamad, N. R. (2012). Accrual quality: The presence of women directors on audit committee boards. *Corporate Ownership and Control*, 10(1), 675–680. <https://doi.org/10.22495/cocv10i1c7art3>
- Saona, P., Muro, L., San Martín, P., & Baier-Fuentes, H. (2019). Board of director's gender diversity and its impact on earnings management: An empirical analysis for select European firms. *Technological and Economic Development of Economy*, 25(4), 634–663. <https://doi.org/10.3846/tede.2019.9381>

- Setiawan, D. (2018). Karakteristik dewan komisaris dan manajemen laba: bukti pada peristiwa penawaran saham perdana. *Jurnal Siasat Bisnis*, 22(2), 164–181. <https://doi.org/10.20885/jsb.vol22.iss2.art4>
- Soebyakto, B. B., Mukhtaruddin, Delamat, H., Dewi, K., & Pratama, A. F. (2018). Female commissioner and director, and earnings management: Study on manufacturing companies listed on Indonesia Stock Exchange. *Academy of Accounting and Financial Studies Journal*, 22(4), 1–10.
- Sun, J., Liu, G., & Lan, G. (2011). Does female directorship on independent audit committees constrain earnings management? *Journal of Business Ethics*, 99(3), 369–382. <https://doi.org/10.1007/s10551-010-0657-0>
- Susanto, Y. K. (2016). The effect of audit committees and corporate governance on earnings management: Evidence from Indonesia manufacturing industry. *International Journal of Business, Economics and Law*, 10(1), 32–37.
- Thiruvadi, S., & Huang, H. W. (2011). Audit committee gender differences and earnings management. *Gender in Management: An International Journal*, 26(7), 483–498. <https://doi.org/10.1108/17542411111175469>
- Ye, K., Zhang, R., & Rezaee, Z. (2010). Does top executive gender diversity affect earnings quality? A large sample analysis of Chinese listed firms. *Advances in Accounting*, 26(1), 47–54. <https://doi.org/10.1016/j.adiac.2010.02.008>
- Yunianto, A. (2013). Pengaruh penggantian manajemen, dewan komisaris independen, kepemilikan manajerial, kepemilikan institusional, dan kualitas audit terhadap manajemen laba. *Jurnal Akuntansi dan Investasi*, 14(2), 143–157.
- Zalata, A. M., Tauringana, V., & Tingbani, I. (2018). Audit committee financial expertise, gender, and earnings management: Does gender of the financial expert matter? *International Review of Financial Analysis*, 55, 170–183. <https://doi.org/10.1016/j.irfa.2017.11.002>
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