

GENDER AND OTHER FACTORS AFFECTING REAL EARNINGS MANAGEMENT

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ABSTRACT

This research intends to investigate the influence of audit quality, firm size, firm age, firm leverage, profitability, female CEO, female BOD, and female audit committee on real earnings management. The sample of this study consist of 342 data from 114 manufacturing companies that has been listing in Indonesia Stock Exchange from 2017-2021 by purposive sampling method. This study uses multiple regression method to find out the relation between each independent variable to real earnings management. The result of this research shows that audit quality, firm age, profitability, female BOD and female audit committee have an influence on real earnings management, while the other 3 variables, which are firm size, firm leverage, and female CEO have no influence on real earnings management.

Keywords: real earnings management, gender, audit quality, firm size, firm age, firm leverage, profitability, female CEO, female BOD, and female audit committee.

INTRODUCTION

Earnings is often a benchmark for the level of success of a company and also a consideration for investors and creditors in investing and lending funds for a company. It is important because company's earnings shows the rate of risk and return on investment, and provides an overview of the company's growth in the future (Indrastuti and Djojo 2021). Moreover, managers usually receive bonus when the company's financial performance is good. Hence, this encourages management to manipulate the financial statements. This kind of earnings manipulation is called earnings management (Agustia 2013).

Senior management is more potentially engaged in manipulating earnings because they play an essential role in preparing external parties' financial statements (Deruvensi and Kristianti 2022). While currently, the proportion of women in senior management in Indonesia has reached 37%, placing Indonesia as the 4th highest country in the world (Setiawan 2020). In case the relation of senior executives with earnings management level is effectively determined, it will add more prove to assist the companies to realize the critical role of female senior management and gain more attention from the public (Li et al. 2021).

Generally, earnings management can be done through two methods including accrual-based earnings management and real earnings management. Accrual-based earnings management practices have no direct cash flow consequences, while real earnings management practices affect cash flow directly. So, in practice management prefers real earnings management than accrual-based earnings management since real earnings management practices are more difficult to be detected by auditors and regulators (Cohen and Zarowin 2010). Techniques that can be done in real activity manipulation, including sales manipulation, overproduction, and reduced discretionary expenses (Roychowdhury 2006).

One example of earnings management practice is Toshiba Company. Toshiba has reported overstated profit of US\$ 1.2 billion since 2008. One way to manipulate financial statements is to delay the recognition of expenses for a certain period. This is done by forcing suppliers to delay the issuance of invoices even though the work has been completed as if there were no expenses and can increase the reported profits (Hakim 2015). The Toshiba case is an example of the reduction of discretionary expenditures, where companies can reduce reported costs, and increase earnings.

The large numbers, the long-time span, as well as the involvement of top management indicate how complex the manipulation has been committed. For this reason, this research is titled "Gender and Other Factors Affecting Real Earnings Management". This research is developed from research by Khanh and Khuong (2018) who study the influence of audit quality, firm size, firm age, firm leverage, profitability on real earnings management, and adding three variables, which are, female directors and female CEO (Li et al. 2021), and female audit committee (Mardessi and Fourati 2020) using manufacturing companies listed on Indonesia Stock Exchange from 2017 until 2021.

AGENCY THEORY

Jensen and Meckling (1976) stated the agency relationship is when the principal involves the agent to perform tasks on behalf of the principal. Due to the operation being fully handled by the company's management who act as the agent, so there is no reason to fully believe that the agent will act in the interests of principal (Yunietha and Palupi 2017). This conflict of interests between principal and agent is called agency problem, where one of the causes is caused by asymmetric information (William R Scott 2019).

Asymmetric information occurs when managements have more information about the company's operation and future prospects than the shareholders have. Where the shareholders rely only on financial statements to obtain information about the company, causing a greater desire for management to manipulate the information within the financial statements to seek their own profit and magnify the asymmetric information (Gitman and Zutter 2015).

REAL EARNINGS MANAGEMENT

Earnings management can be accrual without manipulating cash flows and can be real when managers manipulate the cash flow with aim to manage earnings (Subramanyam 2018). Real earnings management is actions done by management that diverge from normal business activities, in order to achieve certain profit targets (Roychowdhury 2006). Real earnings management has three methods, there are abnormal cash flow operation, abnormal discretionary expenses, and abnormal production costs (Cohen and Zarowin 2010).

AUDIT QUALITY AND REAL EARNINGS MANAGEMENT

Audit quality is often associated with Big Four CPA firms, because Big Four CPA firms have a better understanding of the accounting system and the client's business process (Sambuaga et al. 2021). According to Mnif and Hamouda (2020), audit quality has a positive influence on real earnings management. This means that the higher the audit quality, the higher the real earnings management practices. Due to tighter audit supervision, management will switch from accruals to real earnings management practices, which are more difficult to detect. This result agrees with research conducted by Ishak et al. (2016).

In contrast, Madbouly (2021) stated that audit quality has a negative influence on real earnings management. In maintaining their reputation, Big Four CPA firms work more carefully with their procedures and specifications. Due to tighter audit supervision and procedures, it is harder for management to do earnings management. This result agrees with research conducted by Choi et al. (2016) and Chou and Chan (2018).

While Khanh and Khuong (2018) acknowledged audit quality has no significant influence on real earnings management. This result agrees with research conducted by Li et al. (2021), Owusu et al. (2020), and Sari and Wijaya (2020). Based on the above inconsistency, the hypothesis development for this research will be:

Ha₁: Audit quality has an influence on real earnings management.

FIRM SIZE AND REAL EARNINGS MANAGEMENT

Firm size is a value that shows how big a company is. There are three categories of a firm size such as (1) large firm, (2) medium-size firm, and (3) small firm (Suwito and Herawaty 2005). According to Mardessi and Fourati (2020), firm size has a positive influence on real earnings management. This means that the larger the firm, the higher the real earnings management practices. A large firm normally has a more complex and large volume of transactions, this enhances the chance for management to manipulate the firm's earnings. This result agrees with research conducted by Choi et al. (2016), Ishak et al. (2016), Cheng et al. (2016), Razzaque et al. (2016), Ghaleb et al. (2020), and Zhou et al. (2018).

In contrast, Khanh and Khuong (2018) stated that firm size has a negative influence on real earnings management. A large firm is usually better known by public and tends to maintain their reputation so as to reduce the earnings management practices. Furthermore, the large firm usually has more integrated internal controls to detect the earnings management activities, so the chance to manipulate earnings is reduced. This result agrees with research conducted by Li et al. (2021), Madbouly (2021), Mnif and Hamouda (2020), Debnath et al. (2019), and Owusu et al. (2020).

While Sari and Wijaya (2020) acknowledged firm size has no significant influence on real earnings management. This result agrees with research conducted by Alhmoed et al. (2020) and Chou and Chan (2018). Based on the above inconsistency, the hypothesis development for this research will be:

Ha₂: Firm size has an influence on real earnings management.

FIRM AGE AND REAL EARNINGS MANAGEMENT

Firm age is the period of a company since it was established and operated (Jenny and Christina 2018). Firm age indicates that a company is still able to compete in the industry (Alexander and Hengky 2017). According to Khanh and Khuong (2018), firm age has a positive influence on real earnings management. This means the longer the period of a firm since its establishment, the higher the real earnings management practices. Due to higher pressure and attention from outsiders, the old firm has less chance to manipulate earnings through accruals. Hence, the management tend to engage in real earnings management, which harder to be detected. This result agrees with research conducted by Mnif and Hamouda (2020), Abubakar et al. (2017), and Ghaleb et al. (2020).

In contrast, Cheng et al. (2016) stated that firm age has a negative influence on real earnings management. Old firms are usually better known by society and tend to maintain their reputation so as to reduce the earnings management practices. This result agrees with research conducted by Razzaque et al. (2016) and Debnath et al. (2019).

While Madbouly (2021) acknowledged firm age has no significant influence on real earnings management. This result agrees with research conducted by Alhmoed et al. (2020). Based on the above inconsistency, the hypothesis development for this research will be:

Ha₃: Firm age has an influence on real earnings management.

FIRM LEVERAGE AND REAL EARNINGS MANAGEMENT

Firm leverage is used to measure the funds needed for a company's financing (Alexander and Hengky 2017). According to Li et al. (2021), firm leverage has a positive influence on real earnings management. This means that the higher the leverage of the firm, the higher the real earnings management practices. Having more debt to finance its operations makes companies tend to manipulate earnings to avoid tighter debt agreements. This result agrees with research done by Madbouly (2021), Mnif and Hamouda (2020), Cheng et al. (2016), Razzaque et al. (2016), Alhmood et al. (2020), Ghaleb et al. (2020), Debnath et al. (2019), and Goeinawan et al. (2021).

In contrast, Abubakar et al. (2017) stated that firm leverage has a negative influence on real earnings management. Having more debt to finance its operation makes companies get more attention from creditors, hence reducing the earnings management practices done by management. Moreover, higher leverage means higher chances of default. So, companies tend to limit the use of cash to pay off debts first. This result agrees with research conducted by Sari and Wijaya (2020).

While Khanh and Khuong (2018) acknowledged firm leverage has no significant influence on real earnings management. This result agrees with research conducted by Mardessi and Fourati (2020), Choi et al. (2016), Chou and Chan (2018), Zhou et al. (2018), and Owusu et al. (2020). Based on the above inconsistency, the hypothesis development for this research will be:

Ha4: Firm leverage has an influence on real earnings management.

PROFITABILITY AND REAL EARNINGS MANAGEMENT

Profitability is a measurement to counts the company's capacity to get earnings in a certain period (Alexander and Hengky 2017). According to Khanh and Khuong (2018), profitability has a positive influence on real earnings management. This means that the higher the profitability of the firm, the higher the real earnings management practices. Due to profitable companies needing to report an increasing earnings pattern to maintain their stockholders, management tend to manipulate earning to achieve this. This result agrees with research done by Mnif and Hamouda (2020), Abubakar et al. (2017), Zhou et al. (2018), and Goeinawan et al. (2021).

In contrast, Li et al. (2021) stated that profitability has a negative influence on real earnings management. Profitable companies are less engaged in earnings management practices because they already have a good profit. This result agrees with research conducted by Cheng et al. (2016), Razzaque et al. (2016), Ghaleb et al. (2020), and El-Mahdy (2015).

While Choi et al. (2016) acknowledged profitability has no significant influence on real earnings management. This result agrees with research conducted by Sari and Wijaya (2020), Chou and Chan (2018), and Owusu et al. (2020). Based on the above inconsistency, the hypothesis development for this research will be:

Ha5: Profitability has an influence on real earnings management.

FEMALE CEO AND REAL EARNINGS MANAGEMENT

Females who lead a company as CEO have lower risk index than the male CEOs (Hoang et al. 2019). According to Li et al. (2021), female CEO has a positive influence on real earnings management. This means that if a company is led by a woman as CEO, the higher the real earnings management activities. As the decision maker in a company, CEO has more chance to manipulate earnings regardless of gender. This result agrees with research done by Chou and Chan (2018).

In contrast, Zhou et al. (2018) stated that female CEO has a negative influence on real earnings management. Due to most of the finance reports handled by the CFO, CEO tend to has lower chance to do earnings management. This result agrees with research conducted by El-Mahdy (2015).

While Luciano and Wang (2020) acknowledged female CEO has no significant influence on real earnings management. This result agrees with research conducted by Owusu et al. (2020). Based on the above inconsistency, the hypothesis development for this research will be:

Ha6: Female CEO has an influence on real earnings management.

FEMALE BOD AND REAL EARNINGS MANAGEMENT

The presence of women in the boardroom brings different experiences and enhances the knowledge and insight on the boardroom itself, therefore the company can get a higher quality of financial statements due to various considerations (Hillman et al. 2007). According to Debnath et al. (2019), female BOD has a positive influence on real earnings management. This means that if a company has a woman as its director, the higher the real earnings management activities. As board directors, female also tends to avoid reporting loss in the financial report. So, they involve in earnings management to produce a good report for stockholders. This result agrees with research done by Ali Aribi et al. (2021).

In contrast, Abubakar et al. (2017) stated that female BOD has a negative influence on real earnings management. Additional gender will increase monitoring of a company because women tend to have more ethical attitude than men. Furthermore, the presence of female in the board will enhance the quality of financial report. This result agrees with research conducted by Ghaleb et al. (2020) and Mulder and Zubair (2017).

While Li et al. (2021) acknowledged female BOD has no significant influence on real earnings management. This result agrees with research conducted by Ishak et al. (2016) and Owusu et al. (2020). Based on the above inconsistency, the hypothesis development for this research will be:

Ha₇: Female BOD has an influence on real earnings management.

FEMALE AUDIT COMMITTEE AND REAL EARNINGS MANAGEMENT

Females are more likely to serve as monitoring-related committees than males (Adams and Ferreira 2009). According to Goeinawan et al. (2021), female audit committee has a positive influence on real earnings management. This means if companies have a female audit committee that supervised the company, real earnings management will be greater. This is caused by the presence of female in audit committee will lessen the supervision of a company. Hence, management more adventurous to do earnings management.

In contrast, Mardessi and Fourati (2020) stated that female audit committee has a negative influence on real earnings management. Women are more conservative than man, so they are likely to follow the rules and supervise a company as applicable regulations. This result agrees with research conducted by Mulder and Zubair (2017) and Ali Aribi et al. (2021).

While Owusu et al. (2020) acknowledged female audit committee has no significant influence on real earnings management. Based on the above inconsistency, the hypothesis development for this research will be:

Ha₈: Female audit committee has an influence on real earnings management.

RESEARCH METHOD

This research will use population of all manufacturing companies listed in Indonesia Stock Exchange from 2017 to 2021 using purposive sampling method with the following criteria:

1. Manufacturing company that consistently listed in Indonesia Stock Exchange from 2017-2021.
2. Manufacturing company that consistently published financial statements and annual reports that are available publicly from 2017-2021.
3. Manufacturing company that consistently published the financial statements as of 31 December from 2017-2021.
4. Manufacturing company that consistently used IDR currency in their financial statements from 2017-2021.
5. Manufacturing company that consistently had an audit committee from 2019-2021.

REAL EARNINGS MANAGEMENT (REM)

Real Earnings Management were measured by the ratio scale using the calculation model of Li et al. (2021) which refers to Roychowdhury (2006) and Cohen et al. (2008), where real earnings management consists of the calculation of the abnormal level of production (OP), abnormal level of operating cash flow (OCF), and abnormal level of discretionary expenses (DE). Then, those three calculations are estimated by regressions for each year for each model as follows:

Equation to calculate abnormal level of production:

$$\frac{OP}{A_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta S_{i,t}}{A_{i,t-1}} + \beta_4 \frac{\Delta S_{i,t-1}}{A_{i,t-1}} + \varepsilon_{i,t}$$

Equation to calculate abnormal level of operating cash flow:

$$\frac{OCF}{A_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta S_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t}$$

Equation to calculate abnormal level of discretionary expenses:

$$\frac{DE}{A_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t}$$

Where:

- OP : The sum of cost of goods sold (COGS) and change in inventory
- OCF : Operating cash flow
- DE : The sum of selling and marketing expenses and general and administrative expenses
- A_{i,t-1} : Total assets of firm i in year t-1
- S_{i,t} : Sales of firm i in year t
- ΔS_{i,t} : Sales of firm i in year t less sales of firm i in year t-1

$\Delta Si,t-1$: Sales of firm i in year $t-1$ less sales of firm i in year $t-2$
 $\beta 1, \beta 2, \beta 3$: Regression coefficients
 $\varepsilon_{i,t}$: A residual term

After that, real earnings management (REM) is the sum of three standardized residuals calculated from three separate regression models AB_OCF, AB_DE and AB_OP. Then, the level of REM will be calculated in an equation as (Li et al. 2021):

$$REM = AB_OP - AB_OCF - AB_DE$$

Where:

AB_OP : abnormal level of production
 AB_OCF: abnormal level of operating cash flow
 AB_DE : abnormal level of discretionary expenses

AUDIT QUALITY (AUQ)

According to Khanh and Khuong (2018), audit quality is measured using dummy variable with nominal scale.

1 = Big 4 audit firm
 0 = non-Big 4 audit firm

FIRM SIZE (SIZE)

According to Khanh and Khuong (2018), firm size is calculated by the natural logarithm of the book value of total assets at year-end with ratio scale.

$$SIZE = \ln \text{ of Total Assets}$$

FIRM AGE (AGE)

According to Khanh and Khuong (2018), firm age is calculated by the difference between the year under investigation and the firm's year of birth with ratio scale.

$$AGE = \text{Year Under Investigation} - \text{Firm's Year of Birth}$$

FIRM LEVERAGE (DAR)

According to Khanh and Khuong (2018), firm leverage is calculated by ratio of the total short- and long-term debt to total assets at year-end with ratio scale.

$$DAR = \frac{\text{Total Debts}}{\text{Total Assets}}$$

PROFITABILITY (ROA)

According to Khanh and Khuong (2018), profitability is calculated by net income divided by total assets with ratio scale.

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$

FEMALE CEO (FCEO)

According to Li et al. (2021), female CEO is measured using dummy variable with ratio scale.

1 = CEO female
 0 = non-CEO female

FEMALE BOD (FBOD)

According to Li et al. (2021), female BOD is calculated by the proportion of female directors in each sample firm with ratio scale.

$$FBOD = \frac{\text{Total Female in Board of Directors}}{\text{Total members of Board of Directors}}$$

FEMALE AUDIT COMMITTEE (FAC)

According to Mardessi and Fourati (2020), female audit committee is calculated by the percentage of women on the audit committee with ratio scale.

$$FAC = \frac{\text{Total Female in Audit Committee}}{\text{Total members of Audit Committee}}$$

This research uses multiple regression analysis to test the relationship between several independent variables of one dependent variable (Sekaran and Bougie 2016, 314). Significant level used is 5% and the model is as follows:

$$REM = \beta_0 + \beta_1 AUQ + \beta_2 SIZE + \beta_3 AGE + \beta_4 DAR + \beta_5 ROA + \beta_6 FCEO + \beta_7 FBOD + \beta_8 FAC + \epsilon$$

RESULTS AND DISCUSSION

Table 1 Descriptive Statistics Result

Variable	N	Minimum	Maximum	Mean	Std. Deviation
REM	342	-10.8323858	8.2193640	0.0000000	2.4448643
AUQ	342	0	1	0.32	0.468
SIZE	342	25.3613980	33.5372300	28.5242578	1.5723806
AGE	342	5	92	40.02	14.256
DAR	342	0.0630294	3.9543653	0.4929957	0.4207063
ROA	342	-1.0498394	0.4163203	0.0341257	0.1151539
FCEO	342	0	1	0.08	0.265
FBOD	342	0.0000000	0.7500000	0.1378110	0.1699980
FAC	342	0.0000000	0.6666667	0.1827973	0.2346053

Table 1 shows that the total data observed by the researcher is 342. Real Earnings Management (REM) has a minimum value of -10.8323858, a maximum value of 8.2193640, a mean value of 0.0000000 and a standard deviation value of 2.4448643. The number of data audited by big 4 audit firms are 110 companies, the rest of the 232 companies are audited by non-big 4 audit firms. Firm Size (SIZE) has a minimum value of 25.3613980, a maximum value of 33.5372300, a mean value of 28.5242578 and a standard deviation value of 1.5723806.

Firm Age (AGE) has a minimum value of 5, a maximum value of 92, a mean value of 40.02 and a standard deviation value of 14.256. Firm Leverage (DAR) has a minimum value of 0.0630294, a maximum value of 3.9543653, a mean value of 0.4929957 and a standard deviation value of 0.4207063. Profitability (ROA) has a minimum value of -1.0498394, a maximum value of 0.4163203, a mean value of 0.0341257 and a standard deviation value of 0.1151539.

The number of data led by female CEO are 26 data, the rest of the 316 data are led by male CEO. Female Board of Directors (FBOD) has a minimum value of 0.0000000, a maximum value of 0.7500000, a mean value of 0.1378110 and a standard deviation value of 0.1699980. Female Audit Committee (FAC) has a minimum value of 0.0000000, a maximum value of 0.6666667, a mean value of 0.1827973 and a standard deviation value of 0.2346053.

Table 2 t Test Result

Variable	Coefficients (β)	Significance	Decision
Constant	-2.381	0.358	
AUQ	-0.550	0.077 ***	Ha1 accepted
SIZE	0.140	0.123	Ha2 not accepted
AGE	-0.032	0.000 *	Ha3 accepted
DAR	0.235	0.442	Ha4 not accepted
ROA	-7.223	0.000 *	Ha5 accepted
FCEO	0.160	0.751	Ha6 not accepted
FBOD	-1.372	0.088 ***	Ha7 accepted
FAC	0.884	0.094 ***	Ha8 accepted

F 11.857 Sig 0.000, AdjR² 0.203

Note: * = sig at 0,01; ** = sig at 0,05; *** = sig at 0,10

Audit quality (AUQ) has significance value of 0.077, lower than alpha 0.10. Ha1 is accepted which means that audit quality has influence on real earnings management. Negative coefficient of -0.550 means that audit quality to real earnings management has negative influence. This result is aligned with Madbouly (2021), that Big Four CPA firms is better in mitigating earnings management activities.

Firm size (SIZE) has significance value of 0.123, higher than alpha 0.10. Ha2 is not accepted which means that firm size has no influence on real earnings management. This result is aligned with Sari and Wijaya (2020), the size of the company does not affect management to manipulate earnings.

Firm age (AGE) has significance value of 0.000, lower than alpha 0.05. Ha3 is accepted which means that firm age has influence on real earnings management. Negative coefficient of -0.032 means that firm age to real earnings management has negative influence. This result is aligned with Cheng et al. (2016), old firms are usually better known by society and tend to maintain their reputation so as to reduce the earnings management practices.

Firm leverage (DAR) has significance value of 0.442, higher than alpha 0.10. Ha4 is not accepted which means that firm leverage has no influence on real earnings management. This result is aligned with Khanh and Khuong (2018), the level of indebtedness of the company does not affect management to manipulate earnings.

Profitability (ROA) has significance value of 0.000, lower than alpha 0.05. Ha5 is accepted which means that profitability has influence on real earnings management. Negative coefficient of -7.223 means that profitability to real earnings management has negative influence. This result is aligned with Li et al. (2021), profitable companies are less engaged in earnings management practices because they already have a good profit.

Female CEO (FCEO) has significance value of 0.751, higher than alpha 0.10. Ha6 is not accepted which means that female CEO has no influence on real earnings management. This result is aligned with Luciano and Wang (2020), regardless of gender who leads a company as CEO does not affect earnings management practices.

Female BOD (FBOD) has significance value of 0.088, lower than alpha 0.10. Ha7 is accepted which means that female BOD has influence on real earnings management. The negative coefficient of -1.372 may inform that female BOD have negative effect to real earnings management. This result is aligned Abubakar et al. (2017) that higher composition of female in BOD in pursuing better ethical decision the lower real earnings management.

Female audit committee (FAC) has significance value of 0.094, lower than alpha 0.10. Ha8 is accepted which means that female audit committee has influence on real earnings management. The positive coefficient of 0,884 means positive effect of the existence of female audit committee to real earnings management. This result is aligned with Goeinawan et al. (2021), that female audit committee potentially lessen the supervision of a company.

CLOSING

Based on the test done before, audit quality, firm age, profitability, female BOD and female audit committee have an influence on real earnings management, while the other 3 variables, which are, firm size, firm leverage, and female CEO have no influence on real earnings management. Audit quality has negative influence as Big Four CPA firms work more carefully with their procedures and specifications, hence the tighter audit supervision and procedures, it is harder for management to do earnings management. Firm age has negative influence as older firms are usually better known by society and tend to maintain their reputation so as to reduce the earnings management practices. Profitability has negative influence as profitable companies are less engaged in earnings management practices because they already have and report a good profit. Female BOD has negative influence as additional gender will increase monitoring of a company because women tend to have more ethical attitude than men. Female audit committee has positive influence as the presence of female in audit committee will lessen the supervision of a company hence management more adventurous to do earnings management.

This research has limitations that need to be considered for future research, namely (1) There is heteroscedasticity problem in independent variable in this research, which is caused by variation in dummy variable of female CEO that female CEO is rare (2) limited scope of research that is determined in purposive sampling criteria. To resolve the limitations mentioned before, this is the recommendation for future research: Future research is suggested to solve heteroscedasticity problem by expanding research object in industry types and period and by this also expanding the generalization possibility of the research.

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