JoSS:
Journal of Social Science

Volume 2 Number 1 January, 2023
p- ISSN 2963-1866- e-ISSN 2963-8909

THE EFFECT OF REAL EARNING MANAGEMENT, EARNING QUALITY, AND LEVERAGE ON COMPANY PERFORMANCE WITH COMPANY AGE AS A MODERATION VARIABLE

Ipan Adi Putra[1], Melinda Malau[2]
Universitas Trisakti[1], Universitas Kristen Indonesia[2]
ipanadiputra85@gmail.com[1], melinda.malau@uki.ac.id[2]

KEYWORDS
Real Earning Management, Earning Quality, Leverage, Company Age, Company Performance.

ARTICLE INFO
Accepted:
19 January 2023
Revised:
22 January 2023
Approved:
24 January 2023

ABSTRACT

The purpose of this study is to analyze whether real earnings management, earning quality, and leverage affects companies' performance with company age as a moderation variable. The method used in this study was panel data regression analysis. The sample used in this study consisted of 124 listed manufacturing companies listed on the Indonesian Stock Exchange for the period 2017-2021. As a result, real earning management (ACFO) and real earning management (ADISX) negatively affect company performance, while earning quality positively affects company performance, and company age strengthens the relationship between earning quality and company performance. Company age enhances the relationship between leverage and company performance. This study implies that companies need to limit real earning management because it significantly negatively affects the company's performance, and then the company can increase.

INTRODUCTION

Company performance is a reflection of all company activities or activities that measure the company's success. Information on the development of the company can be found in the annual financial statements. This information is essential for various users of financial statements. One of them is for the company's management to make decisions and policies. Therefore, it is essential to continue to monitor performance from year to year along with company's performance trends. This information is beneficial not only for managers but also for investors to monitor the performance of the company (Apriliani & Dewayanto, 2018).

The existence of information about the company's performance for shareholders can be difficult to understand because of its reliability and accuracy. One of the causes is the existence of conflicts of interest between management and shareholders that reflect information asymmetry (Leland & Pyle, 1977) According to agency theory, insider managers obtain information at the expense of outsider shareholders (Huang & Skantz, 2016). The principal needs information about the performance of the company achieved by management. However, because managers want to maximize their earnings, the information they convey

often varies from the actual circumstances (Jensen & Meckling, 1979).

Company performance information can be influenced by several factors, including real earning management, real earning management is earning manipulation through operational activities, which directly affects cash flow (Sun et al., 2014). In addition, there is also the quality of earning that can affect the company's performance information. Earnings quality is one of the most important metrics to properly evaluate a company (Liang, Liu, Asiri, Sun, & Luo, 2014). (Patricia Dechow, Ge, & Schrand, 2010) High earnings quality status provides more information about company performance in relation to specific decisions by specific decision makers. (Demerjian, Lev, Lewis, & McVay, 2013) believe that the high quality earnings are an accurate reflection of our company's performance. Furthermore, leverage factors can affect the company's performance information. Leverage is the level of a company's ability to use assets from loans and share issuance to achieve the company's goal of optimizing the source (Malau, 2018).

Based on previous research literature, real earning management can negatively affect future operational performance (Gunny, 2005). Then the quality of earnings by measuring the levelling of earnings does not affect the company's performance, while with the measurement of accrual quality, the results affect the company's performance (Machdar, DRM, & Murwaningsari, 2017). Furthermore, leverage affects the company's performance (Malau, 2018).

The purpose of this study is to analyze (i) whether real earning management negatively affects the company's performance; (ii) whether the quality of earnings has a positive effect on the company's performance; (iii) whether leverage negatively affects the company's performance (Anandamaya & Hermanto, 2021).

The theoretical contributions of this research to science include (i) the effect of real earning management, earning quality, and leverage on company performance and (ii) the age of the company moderating (strengthening or weakening) the influence of real earning management, earning quality, and leverage on company performance. The practical contribution of this research is to improve the understanding of business performance. The practical contribution of accounting as a result of this research can be applied to improve the company's performance. A practical contribution to regulators is to improve understanding of the factors affecting business performance. A practical contribution to the company and other interested parties is that the results of this research can provide information and assessments related to improving the company's operations.

METHOD RESEARCH

The types of research used are hypothesis test of the influence of real earning management, earning quality and leverage on company performance. Testing the hypothesis is causal. The period used in the study is from the period 2017-2021. The setting environment is the real environment. The analysis unit uses financial report data of manufacturing companies listed on the Indonesia Stock Exchange, has a website and submits annual reports for the period 2017-2021.

A. Dependent Variables

Company performance is a description of the condition of a company that shows both the financial and operational condition of the company (Jensen & Meckling, 1976). The study used Tobins'Q to measure company performance. Which is calculated using the following formula:

$$\text{Tobin's Q} = \frac{\text{Market Cap + Total Debt}}{\text{Total Assets}} \quad \ldots\ldots (1)$$

B. Independent Variables

The first dependent variable is real earning management, in this study the measurement of real earning management is measured by two measurements, namely abnormal operating cash flow (ACFO), to look at the manipulation of real earning management on fraudulent actions involving operating cash and abnormal discretionary costs (ADISX) tested to see real earning management actions on fraudulent discretionary cost expenditures (Baghdady & Schug, 2019) The ACFO method is measured by the following measurements:

$$ACFO = \left(\frac{1}{TA_{t-1}}\right) + \left(\frac{S_t}{TA_{t-1}}\right) + \left(\frac{\Delta S_t}{TA_{t-1}}\right) - \left(\frac{CFO_t}{TA_{t-1}}\right) \quad \ldots\ldots (2)$$

Information:

CFO_t = Operating cash flow in the t period

TA_t = Operating cash flow in the t period

S_t = Total sales in period t

The ADISX method is measured by the following measurements:

$$ADISX = \left(\frac{1}{TA_{t-1}}\right) + \left(\frac{S_{t-1}}{TA_{t-1}}\right) - \left(\frac{DISX_t}{TA_{t-1}}\right) \quad \ldots\ldots (3)$$

$DISX_t$ = Discretionary costs include sales, general and administrative expenses, R&D and advertising.

TA_t = Total assets in the period t

S_t = Total sales in period t

The second free variable is the quality of earnings, the quality of earnings is measured using discretionary accrual because this model can show the accuracy of reported earnings reflecting the company's current operating performance (Tong & Miao, 2011), which uses the modified Jones Discretionary Accrual (DA) model (Modified Jones Model). Such calculation models are as follows:

Total Accrual Counting (TAC)

$$TAC = NI_{it} - CFO_{it} \quad \ldots\ldots (4)$$

Total Accrual Value (TA) estimated by OLS regression persaman

$$\frac{TA_{it}}{A_{it-1}} = \beta_1 \left(\frac{1}{A_{it-1}}\right) + \beta_2 \left(\frac{\Delta Rev_{it}}{A_{it-1}}\right) + \beta_3 \left(\frac{PPE_{it}}{A_{it-1}}\right) + \varepsilon \quad \ldots\ldots\ldots\ldots\ldots\ldots (5)$$

Using the regression coefficient above the next step is to calculate the value of non discretionary accruals (NDA The final step is to calculate discretionary accruals (DA)

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7)$$

Information:

DA_{it} = *Discretionary Accruals* Company I in the Tth period

NDA_{it} = *NonDiscretionary Accruals* Company I in the Tth period

TA_{it} = *Total Accrual* Company I in the Tth period

NI_{it} = Net Earning of the company i in the t-th period

CFO_{it} = Cash flow from the operating activities of the company i in the t-th period

A_{it-1} = Total assets of the company i in the t-1st period

ΔRev_{it} = Changes in the income of the company i in the t-th period

PPE_{it} = Fixed assets of the company in the t-th period

ΔRec_{it} = Changes in accounts receivable of the company i in the period to t

ε = *error*

The next free variable is leverage; Leverage ratio is a metric used to measure how strong a company's capital structure is (Malau, 2018). The debt ratio level describes the extent to which the owner's equity can cover its obligations to third parties and a ratio that measures the time it takes a company to raise funds from its debt (Anandamaya & Hermanto, 2021). The leverage ratio in this study uses the Debt to Asset Ratio (DAR). A calculation to see how much of the company's assets are funded by liabilities. The calculation of this ratio is carried out by dividing the total debt by the total assets owned by the company.

DAR = Total Utang / Total Aset ……………………………………… (8)

The moderation variable for this study was firm age (AGE),(Alsaeed, 2006) The age of the company is the number of years since its establishment, and it has been clarified that it is still in business.

C. Research Models

The effects of real earnings management, earnings quality, leverage on company performance and company life as moderation variables is shown by equation 9.

$$CP_{it} = \beta_0 + \beta_1 ACFO_{it} + \beta_2 ADISX_{it} + \beta_3 DA_{it} + \beta_4 DAR_{it} + \beta_5 AGE_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (9)$$

Information:

CP = *Company's Performance* (Company Performance)
CFO = Real earning management
DISX = Real earning management
DA = *Discretionary Accrual* (DA) modified Jones model (Modified Jones Model).
DAR = Rasio leverage, *with the formula of total debt divided by total assets.*
AGE = The age of the company, starting from the time the company was founded until now
ε = Error

RESULT AND DISCUSSION

Table 1
Estimation Model Selection Test Results

Show Test		Housman Test		Decision
Cross – Section Chi -Square	Probabilita Chi -Square	Cross -Section random	Probabilita Chi - Square	
1232,903904	0,0000	17,935949	0,0217	Fixed Effect

The test is to choose the most appropriate model to evaluate the model in this study. There are several tests that can be done, first use the Chow test. The null hypothesis (H0) is a general effects model that obtains probability values less than 0.05 from chi-square. Since this rejects the null hypothesis (H0), the better model used is the estimate where the individual effects are represented by a fixed effects model. The following test compares fixed and random effects using the Hausman test. Based on the results of the Hausmann test, where the null hypothesis (H0) is a random effects model, based on the processing results obtained, the Probability value of Chi-square is smaller than 0.05, therefore, the null hypothesis (H0) is rejected. A better model to use is the fixed effects estimate.

Table 2
Hypothesis Test Estimation Results

$CP_{it} = \beta_0 + \beta_1 ACFOit + \beta_2 ADISX_{it} + \beta_3 Da_{it} + \beta_4 DAR_{it} + \beta_5 AGE_{it} + \varepsilon_{it}$

Variabel	Teori	Coef.	Std. Error	t-Statistic	Prob.	Decision
Konstanta		1.209161	0.055626	21.73735	0.0000***)	
ACFO	-	-0.521781	0.204173	-2.555579	0.0109**)	**Ha accepted**
ADISX	-	-1.577139	0.825546	-1.910420	0.0567*)	**Ha accepted**
KL	+	2.043734	0.379261	5.388724	0.0000***)	**Ha accepted**
LEV	-	1.635988	0.389472	4.200529	0.0000***)	Ha rejected
ACFO*AGE	-	0.156793	0.057068	2.747487	0.0062***)	Ha rejected
ADISX*AGE	-	0.478923	0.231251	2.071008	0.0389**)	Ha rejected
KL*AGE	+	0.670790	0.122274	5.485961	0.0000***)	**Ha accepted**
LEV*AGE	-	-0.241309	0.116897	-2.064300	0.0395**)	**Ha accepted**
Goodness of Fit						
R^2		0.950664				
Adj R^2		0.937420				
F-Statistik		71.78156				
Prob F-stat		0.000000				

Source: Processed Data, 2022 (Eviews 9.0)
Information: *** Significance on the levels 1%; ** Significance on the levels 5%; * Significance on the levels 10%

D. Test Model

a. Coefficient of Determination (adj R2)

The coefficient of determination test is seen in the Adj R2 value of 0.937420; this value indicates the ability of the independent variable to account for 93.74% of TOBINSQ behavior, with the rest explained by other variables not included in the study; these results show that the model used in this study is very good.

b. Global Test (Test F)

The global test was shown by the prob value of Fstat of 0.00000 < 0.05 (alpha 5%) after which it was statistically concluded at the 95% confidence level that there was at least one independent variable influencing TOBINSQ. In this study, the independent variable earning Quality (KL) had a significant effect on Company Performance (CP) with a coefience value of 2.043734 and a probability value of 0.0000 < 0.05 (alpha 5%), which means Ha was received.

c. Hypothesis Test

1. **H_1 A: Real earning management (ACFO) negatively affects the company's performance.**

   Based on Table 2, we find that the magnitude of the coefficient of ACFO is -0.521781, meaning that if the ACFO increases, the TOBINSQ will decrease; on the other hand, if the ACFO decreases, it increases the TOBINSQ. This result is consistent with the proposed hypothesis that ACFO negatively affects TOBINSQ. Processing results showed a sig value of 0.0109 < 0.05 (alpha 5%), Ha accepted. It is concluded that ACFO statistically negatively affects TOBINSQ with a 95 percent confidence level.

2. **H_1 B: Real earning management (ADISX) negatively affects the company's performance.**

   Based on Table 2, we find that the magnitude of the coefficient of ADISX is -1.577139, meaning that if ADISX rises, TOBINSQ will decrease; on the other hand, if ADISX falls, it will increase TOBINSQ. This result is consistent with the proposed hypothesis that ADISX negatively affects TOBINSQ. Processing results showed a sig value of 0.0567 < 0.05 (alpha 5%), Ha accepted. It was statistically concluded with a 95 percent confidence level that ADISX negatively affected TOBINSQ.

3. **H_2: The quality of earning has a positive effect on the company's performance.**

   Based on Table 2, we find that the coefficient of KL is 2.043734, meaning that if KL rises, TOBINSQ will increase; on the contrary, if KL falls, it will decrease TOBINSQ. This result is consistent with the proposed hypothesis that KL positively affects TOBINSQ. Processing results showed sig value of 0.0000 < 0.05 (alpha 5%) Ha accepted. A positive effect of KL on TOBINSQ was statistically concluded at the 95% confidence level.

4. **H_3: Leverage negatively affects the company's performance.**

   Based on Table 2, we find that the magnitude of the coefficient of LEV is 1.635988, meaning that if LEV increases, TOBINSQ will increase; on the other hand, if LEV falls, it will decrease TOBINSQ. This result does not match the hypothesis proposed, where LEV negatively affects TOBINSQ, so it is not continued to test

significantly. It is concluded statistically LEV has no negative influence on TOBINSQ.

5. **H_4 A: Company age reinforces the effect of real earning management (ACFO) on company performance**

   Based on Table 2, we find that the magnitude of the coefficient of indirect influence of ACFO on TOBINSQ through AGE is 0.156793, meaning that if ACFO rises, AGE will rise, causing TOBINSQ to rise. These results do not match the proposed hypothesis, where ACFO negatively affects TOBINSQ through AGE, so it does not proceed to significant testing. It is concluded statistically that ACFO has no negative effect on TOBINSQ through AGE.

6. **H_4 B: Company age reinforces the effect of real earning management (ADISX) on company performance**

   Based on Table 2, we find that the magnitude of the coefficient of indirect influence of ADISX on TOBINSQ through AGE is 0.478923, meaning that if ADISX rises, AGE will rise, causing TOBINSQ to rise. These results do not match the hypothesis proposed, where ADISX negatively affects TOBINSQ through AGE, so it does not proceed to significant testing. It is concluded that statistically ADISX has no negative effect on TOBINSQ through AGE.

7. **H_5: The age of the company strengthens the effect of earning quality on the company's performance**

   Based on Table 2, we find that the magnitude of the coefficient of indirect influence of KL on TOBINSQ through AGE is 0.670790, meaning that if KL rises, AGE will rise, causing TOBINSQ to rise. These result is consistent with the proposed hypothesis that KL TOBINSQ is positively affected by AGEs. The processed results showed sig values of 0.0000/2 < 0.05 (alpha 5%) Ha accepted. It was concluded that statistically at a 95 percent confidence level KL affects TOBINSQ through AGE.

8. **H_6: Company age strengthens the effect of leverage on company performance**

   Based on Table 2, we find that the magnitude of the coefficient of indirect influence of LEV on TOBINSQ through AGE is -0.241309. These result is consistent with the proposed hypothesis that LEV TOBINSQ is negatively affected by AGE. The processed results showed sig values of 0.0395/2 < 0.05 (alpha 5%), Ha accepted. It is statistically concluded with a 95 percent confidence level that LEV affects TOBINSQ across AGE.

CONCLUSION

This study analyzes the effect of Real Earnings Management (ACFO and ADISX), Earnings Quality (KL), and Leverage (LEV) on Firm Performance (CP) with Firm Age (AGE) as a moderating variable. The results of this study prove that companies tend to carry out real earnings management and management actions to increase profits for their interests according to research (Wati & Lonika, 2022). Then for the quality of earnings in this study proves that if the quality of earnings increases, the company's performance will also increase, in line with research (Sloan-Lancaster & Allen, 1996) (Li, Salvador, & Rohrer, 2014) (Patricia M. Dechow & Schrand, 2004) (Demerjian et al., 2013) Companies with relatively high earnings quality say they reflect strong corporate performance. The limitations of this study are useful for future

researchers. A limitation of the problem is that the results of this study cannot be generalized to all countries. The results of this study only apply to manufacturing sector companies from several sub-sectors but not including the financial sector that are listed on the Indonesia Stock Exchange (IDX) for the 2017-2021 period and submit annual reports during the study period. Suggestions for further research are: (i) consider other new measures moderated or control variables such as profit transparency, firm value, firm size, because this research only uses a moderating variable, namely company age. (ii) increasing the observation period and research samples from other countries, because this research is only limited to Indonesia. Future studies may add other countries, such as Indonesia's neighbors, which may share the same cultural and demographic characteristics as Indonesia. Further studies are expected to be more comprehensive by using samples from other countries. This study provides theoretical implications that both Real Earnings Management (ACFO) and Real Earnings Management (ADISX) have a negative effect on Firm Performance (CP). In contrast, Earnings Quality (KL) has a positive effect on Firm Performance (CP) and Firm Age (AGE). Strengthening the relationship between Earning Quality (KL) and Company Performance (CP), then Firm Age (AGE) strengthens the relationship between Leverage (LEV) and Company Performance (CP). The managerial implication in this study is that it is essential for companies to limit real earnings management because it has a very negative effect on company performance. Companies can improve earnings quality by presenting financial reports in accordance with applicable accounting standards to improve company performance.

REFERENCES

Alsaeed, Khalid. (2006). The association between firm-specific characteristics and disclosure: The case of Saudi Arabia. *Managerial Auditing Journal*. Google Scholar

Anandamaya, Luh Putu Varamitha, & Hermanto, Suwardi Bambang. (2021). Pengaruh Good Corporate Governance, Ukuran Perusahaan Dan Leverage terhadap Kinerja Keuangan. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, *10*(5). Google Scholar

Apriliani, M. T., & Dewayanto, T. (2018). Pengaruh tata kelola perusahaan dan ukuran perusahaan terhadap kinerja keuangan perusahaan artikel ilmiah. *Diponegoro Journal of Accounting*, *7*(1), 1–10. Google Scholar

Baghdady, Yehia Z., & Schug, Kevin A. (2019). Online comprehensive high pH reversed phase× low pH reversed phase approach for two-dimensional separations of intact proteins in top-down proteomics. *Analytical Chemistry*, *91*(17), 11085–11091. Google Scholar

Dechow, Patricia, Ge, Weili, & Schrand, Catherine. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, *50*(2–3), 344–401. Google Scholar

Dechow, Patricia M., & Schrand, Catherine M. (2004). *Earnings quality*. Research Foundation of CFA Institute Charlottesville, VA. Google Scholar

Demerjian, Peter R., Lev, Baruch, Lewis, Melissa F., & McVay, Sarah E. (2013). Managerial ability and earnings quality. *The Accounting Review*, *88*(2), 463–498. Google Scholar

Gunny, Katherine Ann. (2005). *What are the consequences of real earnings management?* University of California, Berkeley. Google Scholar

Huang, Qianyun, & Skantz, Terrance R. (2016). The informativeness of pro forma and street earnings: an examination of information asymmetry around earnings announcements. *Review of Accounting Studies*, *21*(1), 198–250. Google Scholar

Jensen, Michael C., & Meckling, William H. (1976). Teori perusahaan: perilaku manajerial, biaya agensi dan struktur kepemilikan. *Jurnal Ekonomi Keuangan*, *3*(4), 305–360. Google Scholar

Jensen, Michael C., & Meckling, William H. (1979). Rights and production functions: An application to labor-managed firms and codetermination. *Journal of Business*, 469–506. Google Scholar

Leland, Hayne E., & Pyle, David H. (1977). Informational asymmetries, financial structure, and financial intermediation. *The Journal of Finance*, *32*(2), 371–387. Google Scholar

Li, Li, Salvador, Paul A., & Rohrer, Gregory S. (2014). Photocatalysts with internal electric fields. *Nanoscale*, *6*(1), 24–42. Google Scholar

Liang, Yanhui, Liu, Qian, Asiri, Abdullah M., Sun, Xuping, & Luo, Yonglan. (2014). Self-supported FeP nanorod arrays: a cost-effective 3D hydrogen evolution cathode with high catalytic activity. *Acs Catalysis*, *4*(11), 4065–4069. Google Scholar

Machdar, Nera Marinda, DRM, Adler Haymans Manurung, & Murwaningsari, Etty. (2017). The effects of earnings quality, conservatism, and real earnings management on the company's performance and information asymmetry as a moderating variable. *International Journal of Economics and Financial Issues*, *7*(2), 309–318. Google Scholar

Malau, Harman. (2018). *Manajemen Pemasaran Teori dan Aplikasi Pemasaran Era Tradisional Sampai Era Modernisasi Global*. Google Scholar

Sloan-Lancaster, Joanne, & Allen, Paul M. (1996). Altered peptide ligand–induced partial T cell activation: molecular mechanisms and role in T cell biology. *Annual Review of Immunology*, *14*(1), 1–27. Google Scholar

Sun, Deqiang, Luo, Min, Jeong, Mira, Rodriguez, Benjamin, Xia, Zheng, Hannah, Rebecca, Wang, Hui, Le, Thuc, Faull, Kym F., & Chen, Rui. (2014). Epigenomic profiling of young and aged HSCs reveals concerted changes during aging that reinforce self-renewal. *Cell Stem Cell*, *14*(5), 673–688. Google Scholar

Tong, Yen H., & Miao, Bin. (2011). Are dividends associated with the quality of earnings? *Accounting Horizons*, *25*(1), 183–205. Google Scholar

Wati, Erna, & Lonika, Ellen. (2022). Pengaruh Tata Kelola Perusahaan dan Jenis Kepemilikan terhadap Manajemen Laba Riil. *Jurnal Riset Akuntansi Dan Keuangan*, *10*(2), 151–166. Google Scholar