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Does conservatism Influence Earnings Management Activities? The Case of Singapore and Indonesian Firms

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ABSTRACT

This paper aims to evaluate the impact of conservatism on earnings management (EM) in developed and emerging markets, Singapore and Indonesia, respectively. Conservatism is the principle requiring companies to recognize more on bad news than good news. Conditional conservatism (CC) is dependent conservatism that happens after news, but unconditional conservatism (UC) is independent conservatism that results for applying a conservative measure. We analyze both of conservatism towards accrual-based and real EM. The relation of those variables should be different between countries. Our research is based on 544 firms for accrual-based earnings management, 535 firms for real EM in Singapore, 777 firms for accrual-based EM and 654 for real EM in Indonesia from all sectors excluding the financial services industry from 2019 to 2021. We predict that conservatism affects EM, and the impact is different between emerging and developed markets. Earnings is often seen as the performance measure for a firm's analysis and valuation; thus, the conservative accounting choices used may impact the company's actions on EM. We find that CC negatively affects the company's accrual-based and real EM in the Indonesian market. UC firms tend to increase accrual-based EM. While in the Singapore stock exchange, the more conditional (unconditional) conservative the firms, the more likely the company to do more (less) real EM. Firms in Singapore present more real EM than firms in Indonesia. Conversely, firms in Indonesia have higher accrual-based EM. Our findings also provide evidence that the role of conservatism to EM is different between developed or emerging market. Our evidence supports the argument that conservatism limits accrual-based EM. Thus, more conservative firms shift to real EM.

INTRODUCTION

One of the main principles in accounting is the conservatism principle; the management recognizes all potential losses as soon as possible in contrast to gain recognition which happens only if gains are certain. However, management also must maintain the company's reputation and meet investors' expectations by ensuring a growing and smooth income, thereby implementing EM.

Previous research, such as Bertomeu et al. (2017), found that CC increases EM's marginal benefits by supporting executives' performance pay. Previous studies, such as Ball (2001), argue that there are limitations to the opportunities and incentives to manage earnings by applying the conservatism principle. That is, firms lose flexibility in managing their earnings. However, another study contradicts the findings of older studies by demonstrating that EM incentives coexist with conservative accounting, which limits accrual-based management (Garca Lara et al., 2020). Recent analytical research argues that conservatism can increase incentives in EM (Bertomeu et al., 2017). It is because when the conservatism principle is used, current earnings decrease, thus leading managers to implement steeper pay-for-performance contracts, which increase marginal utility in EM. Conservatism also gives the board of directors a higher opportunity to monitor top-level managers, increasing EM's utility.

Compared to developed markets, emerging markets lack the financial structure to support their capital bases (Dewandaru et al., 2017). On the other side, developed markets have a comprehensive legal system and better investor support (Lin and Wu, 2014). Moreover, developed markets tend to have more significant shareholder and creditor rights to reduce managerial discretion.

When we look at developing and developed markets from an EM perspective, we see that they have different characteristics. According to Burgstahler et al. (2006), developed countries with stronger legal systems have lower EM. Previous research has also found that countries with stronger legal protection reduce managers' tendency to manipulate earnings (Defond et al., 2007; Leuz et al., 2003).

This research investigates the impact of conservative accounting on EM in the Indonesian and Singapore stock exchange markets. First, we investigate whether more conservative firms have lower accrual-based EM and then whether managers of these companies on the same markets shift to real EM due to conservative accounting. Zang (2012) shows that such a relationship exists. Third, we evaluate the outcomes of conservative accounting and EM implementation on the Indonesian and Singapore stock exchange markets.

This research contributes to the existing literature in three dimensions. First, since most of the previous research has focused on developed markets such as the United States (Garca Lara et al., 2020; Kousenidis et al., 2014), we use the sample from the representation of developing and developed countries. Indonesia is different from developed markets such as Singapore because it is still in its early stages of development. From 2008 to 2017, Indonesia's average market growth rate was around 7.9% per year, higher than most emerging markets (Sharma et al.,2019). On the other hand, Singapore is classified as a developed market based on its equity performance as measured by the Morgan Stanley Capital International (MSCI) market index. In addition, with a GDP per capita of US $54,530 as of 2020, it is classified as a high-income country (Worldbank, 2017). Second, this research adds empirical evidence on whether firms shift to real EM as a response to the limitation of accrual-based EM. Third, it will guide investors by demonstrating how the coexistence of EM and conservative accounting can influence earnings quality.

This study employs a large sample of firms listed on the Indonesian and Singapore stock exchanges from 2019 to 2021 and uses multiple regression analysis to analyze the data. To conduct the test, this study uses a firm-specific measure of CC based on the model developed by Khan and Watts (2009). This research also measures accrual-based EM using the Kasznik (1999) model and real EM using the Roychowdhury (2006) model.

The remainder of the paper is organized as follows. Section 2 summarizes previous research and presents hypotheses developed; Section 3 provides the methodology used for analysis; Section 4 presents empirical findings and discusses them; and finally, Section 5 concludes the paper.

1. LITERATURE REVIEW AND RESEARCH HYPOTHESES

1.1 Conditional and Unconditional Conservatism

Conservatism is the principle that requires companies to be cautious and use a higher standard for recording gains while a lower standard is for recording losses. Conservatism can be differentiated into conditional and UC (Beaver and Ryan, 2005; Ball and Shivakumar, 2005). Firms can implement both conditional and UC simultaneously (Roychowdhury and Watts, 2007, Qiang, 2007); however, there can be a trade-off between the two. It is due to the nature of UC, which limits CC, that a certain asset cannot be written off twice.

CC (*ex-post*) is dependent conservatism that happens after news (Beaver and Ryan, 2005). It uses a higher benchmark for the recognition of gains. An example of CC is using lower cost or market value in the inventory valuation or the timely impairment of assets. Firms recognize promptly if there are probable economic losses in the near future. Firms with CC also use higher verifiability rates for recognizing the gains.

UC (*ex-ante*) is an independent conservatism that results from applying a conservative measure and recognition criteria when recording assets and liabilities (Beaver and Ryan, 2005). UC examples are an immediate expense of internally created intangibles and the accelerated depreciation method, which recognizes higher depreciation expense in the earlier year, like the double declining method instead of the straight-line method. Conditional and UC may be applied together, but there can be a trade-off. For example, since UC complies with the accounting standards, internally created intangibles are recognized as an expense instead of an asset; thus, firms no longer need to do the timely impairment test for the asset.

1.2 Accrual and Real EM

EM occurs when managers use their judgement in reporting the firm's financial performance. EM is a useful technique to meet analyst's earnings forecasts and control how the financial report looks for investors. Manipulating accounting by using different choices of accounting policy or real actions to achieve a specific goal is called EM. We discuss both accrual and real EM.

Accrual-based EM explains how EM based on accounting choices can be done from the timing of cash flows and accounting income recognition. Accruals can be manipulated by exploiting the accounting rules and using flexibility to mask the firm's actual performance (Dechow and Skinner, 2000). In accounting, managers can choose from a different set of policies. For example, managers can choose which depreciation method to use for fixed assets. Selecting from accounting alternatives when recording accruals can also be called "discretionary accruals".

Real EM is a practice that alters a firm's normal operations in order to give a desired accounting figure, which may mislead some parties into believing that the objective has been fulfilled in the normal operation (Roychowdhury, 2006). EM can be more difficult to track as it can be masked in usual business transactions by changes in timing or transaction structure (Cohen and Zarowin, 2010). Real EM is the process by which managers control earnings through real activities such as reducing advertising, research and development expenses, maintenance expenses, managing purchase timing, disposing of fixed assets, overproducing goods, and granting more accessible sales credit terms. Roychowdhury (2006) identifies three methods of EM: sales manipulation, reducing discretionary expenses manipulation, and overproduction manipulation. This type of EM doesn't violate the accounting policy from the accounting standard board, but it may affect the firm in the long term since it concerns the company cycle. Firms with earnings close to zero would increase reported earnings by managing the variables of real activities opportunistically, such as sales discounts, production levels, research and development expenses, and other discretionary expenditures. Managers tend to use both kinds of EM techniques to achieve their desired targets (Zang, 2012). Past research also conducts surveys which show that top-level management has greater motivation to manipulate earnings through real activities than accruals as doing so is less costly and harder to detect (Graham et al., 2005)

1.3 Conservatism and EM

Previous research argues that CC leads to lower EM because conservatism lowers the incentives for EM as it increases the cost due to the nature of recognizing losses as soon as possible (LaFond and Watts, 2008). CC also gives higher verifiability requirement to recognize good news and decrease managerial opportunities to increase reported earnings (Gao, 2013). When firms implement conservative accounting, a low earnings number is preferable, and it becomes less indicative of poor performance. Prior research also found that firms that implement conditional conservative accounting have easier access to debt financing, and those with better credit terms also have a lower cost of equity financing. According to studies, the less conservative policies are implemented, the higher future financing costs will be (Penalva and Wagenhofer, 2019; Li, 2015). Thus, we build the following hypothesis.

H1: Conditional (and unconditional) conservatism leads to lower accrual-based EM.

Furthermore, García Lara et al. (2020) predict that CC will decrease incentives for accrual-based EM because firms do not want to risk the conservatism-related benefits if they do not implement conservative accounting in their accounting choices, thus shifting to real EM. They also provide evidence that conservative firms have a lower probability of implementing either method of EM. There is also evidence that under tighter accounting standards, there is a trade-off between accrual and real EM because tighter monitoring increases real EM's marginal benefits (Demski, 2004; Ewert and Wagenhofer, 2005). Based on the concepts, the limitations of conservatism to EM lower accruals-based EM (Gao,2013), and it triggers a trade-off between real and accrual EM as the lower accrual-based EM increases real EM, then H2 is stated below.

H2: Conditional (and unconditional) conservatism leads to higher real EM.

Lin and Wu (2014) have previously found that managers in emerging markets have stronger incentives to implement EM than managers in developed markets. However, previous research has not empirically tested yet whether there will be any difference between conservative firms in emerging markets such as Indonesia and firms in developed markets such as Singapore in implementing the EM method. Based on the evidence, compared to developed markets, emerging markets have higher stock price volatility, lower liquidity, and uncertain policies (Lim and Brooks, 2011). Developed markets also have higher investor support and comprehensive legal systems than emerging markets (Lin and Wu, 2014). Therefore, emerging markets with stringent regulations could lead to higher incentives for managers to implement EM. According to Leuz et al. (2003), developed countries with stronger investor support have lower EM. Shen and Chih (2007) also shows that more transparent accounting disclosure which required by countries with stricter legal disclosures, have lower EM. Due to the different characteristics between emerging and developed markets, which could lead to higher or lower EM, we developed the following hypothesis:

H3: The relationship between conservatism and EM is different between emerging and developed markets.

2. RESEARCH METHOD

Our methodological procedure begins with the construction of the dependent variables, so we use the following two equations:

$$EM_{i,t} = \propto_0 + \propto_1 CC_{i,t-1} + \propto_2 UC_{i,t-1} + \propto_3 D + \propto_4 (D\ x\ CC_{i,t-1}) + \propto_5 (D\ x\ UC_{i,t-1}) + \\ + \delta \sum Controls_{i,t-1} + \varepsilon_{i,t} \quad \ldots.(1)$$

In this study, we investigate EM using accrual (ABS_EM) and real (REM) earnings management. ABS_EM is the absolute value of accrual-based EM and REM is real EM. CC and UC are CC and UC, respectively, with t as a time indicator and i represent individual firm. Controls is a vector of the control variables that includes natural logarithm of total assets (LNSIZE), tax expense divided by pre-tax income (TAX), and return on assets (ROA). If CC leads to lower accrual-based EM, we expect β_1 to be negative and significant. However, we also want to know whether another type of conservatism, namely, UC, can also impact lower accrual-based EM, and thus we expect γ_1 to also be negative and significant. If conservatism leads to an increase in the manipulation of its operations or real EM, we expect to see a positive and significant association between the CC and REM and the UC and REM. The dummy variable D in the equation is one for Indonesia and 0 for Singapore.

2.1 Measurement of EM

To calculate accrual-based EM, we use the Kasznik (1999) model. For each sample firm-year, we estimate the following cross-sectional Modified Jones model (Dechow et al., 2005), using data for all firms matched by year and industry:

$$\frac{NDACC_{i,t}}{TA_{i,t-1}} = \gamma_0 + \gamma_1 \times \left(\frac{1}{TA_{i,t-1}}\right) + \gamma_2 \times \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}}\right) + \gamma_3 \times \left(\frac{PPE_{i,t}}{TA_{i,t-1}}\right) + \gamma_4 \times \left(\frac{\Delta CFO_{i,t}}{TA_{i,t-1}}\right) + \varepsilon_{i,t} \quad (2)$$

$$DACC_{i,t} = TACC_{i,t} - NDACC_{i,t} \quad ...(3)$$

TACC represents total accruals, derived by subtracting cash flow from operation (CFO) from net income (NI). ΔREV is the change in revenues, ΔREC is for the change in receivables, PPE is gross property, plant, and equipment, and ΔCFO is the change in cash flow from operations. i denotes individual firm. All variables are deflated by total assets (TA) at the beginning of the year. NDAC represent non-discretionary accruals. DACC refers to accrual-based EM. In this study, we use absolute value of DACC to represent our EM variable (ABS_EM).

To calculate real EM, we use the Roychowdhury (2006) model. Finally, we calculate REM as the sum of abnormal cash flow from operation (AbnCFO), abnormal discretionary expense (AbnDISEXP) and abnormal production (AbnPROD):

$$REM_{i,t} = (-AbnCFO_{i,t}) + (-AbnDISEXP_{i,t}) + AbnPROD_{i,t} \quad ...(4)$$

2.2 Measurement of Conservatism

To calculate the CC, we follow the Khan and Watts (2009) model using the following equation:

$$EPS_{i,t} = \beta_1 + \beta_2 NEG_{i,t} + R_{i,t}(\mu_1 + \mu_2 MCAP_{i,t} + \mu_3 MBV_{i,t} + \mu_4 DTA_{i,t}) + NEG_{i,t}R_{i,t}(\lambda_1 + \lambda_2 MCAP_{i,t} + \lambda_3 MBV_{i,t} + \lambda_4 DTA_{i,t}) + (\delta_1 MCAP_{i,t} + \delta_2 MBV_{i,t} + \delta_3 DTA_{i,t} + \delta_4 D_{i,t} MCAP_{i,t} + \delta_5 D_{i,t} MBV_{i,t} + \delta_6 D_{i,t} DTA_{i,t}) + \varepsilon_{i,t} \quad ...(5)$$

Equation 5 has a rolling window of 3 years (Ahmed and Duellman, 2013), and the coefficients from λ_1 to λ_4 of the regression equation (5) are used to calculate the C-score of each company. C-score refers to the CC measure. EPS (earnings per share) is the function of stock return (R), negative return (NEG=1, zero otherwise), market capitalization (MCAP), market to book value (MBV), and debt to total assets (DTA).

$$CC = C_{score} = \lambda_1 + \lambda_2 MCAP_{j,t} + \lambda_3 MBV_{j,t} + \lambda_4 DTA_{j,t} \quad ...(6)$$

To measure the UC, we follow Kousenidis et al (2014) and use the three years moving average (MA) of TACC before depreciation divided by MA of TA.

$$UC = UC_{score} = -1\left(\frac{MA\ (TACC + Depreciation)}{MA\ Total\ Assets}\right) \quad ...(7)$$

2.3 Data and Sample

The data used in this research are from Unicorn Data Services, the Indonesian Stock Exchange's (IDX) website (www.idx.co.id), and the Singapore Stock Exchange's (SGX) website (www.sgx.com). Objects of this research are companies listed in IDX and SGX from 2019 to 2021, with financial statements ending on December 31.

3. RESULTS AND DISCUSSION

3.1 Descriptive Statistics

Table 1. Descriptive Statistics for Indonesia Accrual-Based EM

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*

$EM_{i.t}$	777	-5.088	22.428	0.018	0.836
$CC_{i.t-1}$	777	-11.120	376.092	4.765	14.619
$UC_{i.t-1}$	777	-0.446	2.005	-0.011	0.109
$LNSIZE_{i.t-1}$	777	17.928	33.495	27.949	2.959
$TAX_{i.t-1}$	777	-17.211	76.751	0.346	3.284
$ROA_{i.t-1}$	777	-4.799	0.921	0.012	0.267
$Abs_EM_{i.t-1}$	777	0.000	22.428	0.109	0.829

Table 2. Descriptive Statistics for Singapore Accrual-Based EM

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
$EM_{i.t-1}$	544	-0.724	3.622	0.006	0.200
$CC_{i.t-1}$	544	-57,959.306	126,635.125	3,724.216	12,906.852
$UC_{i.t-1}$	544	-1.298	0.642	0.001	0.089
$LNSIZE_{i.t-1}$	544	13.361	28.645	19.691	1.997
$TAX_{i.t-1}$	544	-2.246	15.524	0.182	0.789
$ROA_{i.t-1}$	544	-1.322	12.294	0.030	0.546
$Abs_EM_{i.t-1}$	544	0.000	3.622	0.085	0.181

Based on Table 1 and 2, the total sample for accrual-based EM is 777 (544) Indonesian (Singaporean) firm-years. For real EM, we use the sample of 654 (535) Indonesian (Singaporean) firm-years. Based on our correlation tests (untabulated), there is a correlation between conditional and unconditional conservative Indonesian (Singaporean) firms towards the Abs_EM (REM).

3.2 Multiple linear regression results

Table 3. Indonesia results

	REM	*ABS(EM)*	*EM > 0*	*EM < 0*
	(1)	*(2)*	*(3)*	*(4)*
C	-55.570***	0.589**	2.385***	-0.042
t-statistic	-5.094	2.046	3.416	-0.634
$CC_{i.t-1}$	-1.835***	-0.005*	0.078***	0.007***
t-statistic	-4.703	-1.414	3.182	9.550
$UC_{i.t-1}$	-9.654	1.379***	0.714	-1.415***
t-statistic	-0.830	3.788	0.813	-17.616
$LNSIZE_{i.t-1}$	2.228***	-0.016*	-0.090***	-0.003
t-statistic	5.157	-1.489	-3.310	-1.124
$TAX_{i.t-1}$	-0.004	-0.000	-0.002	0.000
t-statistic	-0.020	-0.019	-0.119	0.025
$ROA_{i.t-1}$	9.440*	-0.394*	-1.221**	0.433***
t-statistic	1.352	-1.626	-1.764	8.561
F statistic	3.847***	3.907***	2.738***	9.936***
Adj. R^2	0.041	0.054	0.047	0.747

Durbin Watson	0.205	0.045	0.053	1.909
Fixed Effects	Yes	Yes	Yes	Yes

Table 3 columns (2), (3), and (4) provide regression results for H_1. In Indonesia, UC increases accrual-based EM. UC in Indonesian firms leads to higher absolute value of accrual-based EM (UC= 1,379). CC leads to higher income-increasing accrual-based EM (CC= 0,078) and income-decreasing accrual-based EM (CC= 0,007). We find that UC firms in Indonesia use the decreasing income strategy of accrual-based management. The higher the UC, the more firms tend to use income decreasing to record more gains in the next period to minimalize their loss in the next period. The income-decreasing method can present stable financial conditions for the investors or control the management's bonus-based performance. When the management has achieved specific target earnings, they can use the remaining income to be recognized in the next period.

Table 3 column (1) support our second hypothesis, showing that CC reduces real EM (CC=-1,840). The results are also contrary to our prediction, whereas conservative firms shift to real EM. In Indonesia, the more conservative the firms, the more they use accrual-based EM. Previous studies, including Garcia et al. (2020) show evidence that US firms, whereas in developed countries, it has stronger security regulations. So, companies in the US firms prefer to use real EM as it is less risky in EM detection. We also find evidence that firm's size (SIZE) and return on assets (ROA) also influence firm's action in real activities manipulation.

Table 4. Singapore results

	REM	*ABS(EM)*	*EM > 0*	*EM < 0*
	(1)	*(2)*	*(3)*	*(4)*
C	-0,615***	0,461***	0,440***	-0,367***
t-statistic	-2,472	5,885	3,142	-6,017
$CC_{i.t-1}$	0,000**	0,000	-0,000	0,000
t-statistic	2,204	0,221	-0,107	0,094
$UC_{i.t-1}$	-0,576*	-0,037	-0,203	-0,164**
t-statistic	-1,490	-0,301	-0,920	-1,754
$LNSIZE_{i.t-1}$	-0,029**	-0,019***	-0,018***	0,015***
t-statistic	2,290	-4,822	-2,472	4,827
$TAX_{i.t-1}$	0,013	0,005	-0,005	-0,042***
t-statistic	0,430	0,533	-0,330	-3,631
$ROA_{i.t-1}$	0,091*	-0,002	-0,287***	-0,030**
t-statistic	1,477	-0,118	-3,050	-2,331
F statistic	3,847***	3,907***	2,738***	9,936***
Adj. R^2	0,036	0,036	0,042	0,192
Durbin Watson	0,957	1,492	0,393	0,929
Fixed Effect	Yes	Yes	Yes	Yes

Using Singapore data, Table 4 in columns (2), (3), and (4) shows that conservatism does not influence Singaporean firms in accrual-based EM. We find larger firms will do the income-decreasing strategy of

earnings. The tax has also influenced income-decreasing EM; the higher the tax expense, the firms will try to decrease their earnings to pay a lower rate of taxes.

Column (1) show that the more conservative the firms, the more real EM. It supports the argument of (Garcia et al., 2020) that conservative firms will be more likely to implement real activities manipulation. However, unconditionally conservative firms avoid doing real EM as they believe it could decrease the earnings quality.

Table 5. Comparison of Indonesia and Singapore

	REM	*ABS(EM)*	*EM > 0*	*EM < 0*
	(1)	*(2)*	*(3)*	*(4)*
C	-21,276***	0,489***	1,366***	-0,226***
t-statistic	-4,829	3,623	4,122	-5,846
$CC_{i.t-1}$	-0,000	0,000	0,000	0,000
t-statistic	-0,677	0,331	0,495	0,201
$UC_{i.t-1}$	7,482	-0,263	-0,584	0,014
t-statistic	0,8172	-0,646	-0,695	0,116
D	-5,612***	0,216***	0,381***	-0,063***
t-statistic	-3,355	3,221	2,825	-3,196
$D*CC_{i.t-1}$	-0,974***	-0,001	0,060***	0,002***
t-statistic	-4,146	-0,600	3,505	4,090
$D*UC_{i.t-1}$	-25,593**	1,946***	1,799*	-1,860***
t-statistic	-2,197	4,448	1,756	-15,494
$LNSIZE_{i.t-1}$	1,085***	-0,020***	-0,065***	0,007***
t-statistic	4,868	-3,041	-3,897	3,741
$TAX_{i.t-1}$	0,008	-0,000	-0,002	-0,001
t-statistic	0,057	-0,008	-0,157	-0,318
$ROA_{i.t-1}$	1,487	-0,052	-0,549*	0,005
t-statistic	1,043	-0,828	-1,836	0,325
F statistic	3,443***	8,273***	3,517***	124,165***
Adjusted R-squared	0,020	0,052	0,038	0,646
Durbin Watson	0,164	0,091	0,046	1,132
Fixed Effect	Yes	Yes	Yes	Yes

Table 5 shows that real EM is lower in Indonesia compared to Singapore, while accrual-based EM in Indonesia is higher than in Singapore. Indonesian firms are more likely to decrease earnings or use discretionary expenses as their strategy in EM. Conditional and unconditional conservative firms in Indonesia lower real EM but increase accrual-based EM more than in Singapore. Developed markets have stronger legal structures; thus, the usage of accrual-based EM is lower because accrual manipulation carries more risks. The accrual manipulation attracts more auditor's attention than real manipulation (Roychowdhurry, 2006); the accrual-based strategy can also become weak when the earnings in the current period doesn't meet the target resulting in less bonus for the managers. Thus, real earnings manipulation is safer as it can be done throughout the company's operating period

CONCLUSIONS

Based on our findings and results, conservatism in Indonesian firms increases accrual-based EM, while it doesn't influence EM act in Singapore. Conservative firms in Indonesia also lower real EM, while in Singapore, it increases real earnings manipulation. The result for developed market is in line with the evidence provided by Garcia et al. (2020) that conservatism increases real EM and engages in less accrual-based EM. However, Indonesia, which represents emerging markets, is different because emerging markets have weaker legal structures and security regulations. The developed markets shifted to real EM as it is more difficult to detect the manipulation throughout operating activities compared to accrual-based EM.

This study has limitations that can be considered for subsequent research; that is, this research only analyzed companies in 2019-2021. Further research can use a more extended period. Other variables can influence EM, such as big 4 and non-big four auditors, leverage, and market shares. The opportunistic management behaviour in EM is different because the characteristics and culture in each country are different. The difference in financial accounting standards usage can also be used as development for future research.

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