ACRN Journal of Finance and Risk Perspectives 11 (2023) 158-174

Contents lists available at SCOPUS

ACRN Journal of Finance and Risk Perspectives

journal homepage: http://www.acrn-journals.eu/

Does IFRS 7 Disclosure Weaken Earnings Management? Evidence from Indonesian Conventional Commercial Banks

Riyan Harbi Valdiansyah, Etty Murwaningsari*, Sekar Mayangsari

Faculty of Economics and Business Universitas Trisakti Jakarta, Indonesia

ARTICLE INFO

Article history:
Received 07 October 2022
Revised 03 December 2022
Accepted 09 January 2023
Published 05 March 2023

Keywords:
Derivative instruments
Income Diversification
Liquidity ratios
Earnings Management
IFRS 7 disclosure
JEL: G21, M38, M41

ABSTRACT

This study examines the influence of derivative instruments, income diversification, and liquidity ratios on earnings management with IFRS 7 disclosure as a moderating variable. The sample used consists of 129 conventional commercial banks that are listed and 116 banks that are not listed on the Indonesia Stock Exchange (IDX). This study uses moderating regression analysis (MRA) with the Robustness Least Squares with S-Estimation method. This study also conducted a sensitivity analysis with previous earnings management measurements (Kanagaretnam et al., 2010) and an additional test by comparing listed and non-listed banks on the Indonesia Stock Exchange. The empirical results indicate that IFRS 7 disclosure weakens derivative instruments' negative effect and income diversification's positive effect on earnings management but does not provide a moderating effect on liquidity ratios. This study contributes to the bank management and Indonesian banks authority to provides another view of implementing IFRS 7 disclosure that have not been maximized in the Indonesian banking industry. In the future, the researchers expect the authorities to encourage all banks to disclose complete IFRS 7 disclosure to minimize information asymmetry. On the other hand, this study also contributes to the banking management to increase derivative instruments and to carry out more supervision on the provision of income diversification to minimize earnings management. Theoretically, this study contributes to the new earnings management measurement by applying more prudential principles based on the IFRS framework, IFRS 9 and Basel III regulations.

Introduction

Loan loss provision in the banking industry has long been a significant concern for stakeholders of financial statements for investment and contractual purposes. In this study, the value of discretionary loan loss provisions will indicate bank earnings management. This means that the greater the value of discretionary loan loss provisions, the greater the practice of earnings management in the banking industry (Basu et al., 2020). The International Accounting

* Corresponding author.
E-Mail address: etty.murwaningsari@trisakti.ac.id
ORCID: 0000-0002-9720-6392

https://doi.org/10.35944/jofrp.2022.11.1.009
ISSN 2305-7394

Standards Board (IASB) has applied a new standard of provision following the 2008-2009 global financial crisis, which required banks to make provisions for potential loan losses based on the forward-looking and expected loss model in IFRS 9 (Balla & Rose, 2015). In Indonesia, that standard started to be implemented in the early 2020s. The phenomenon of bank earnings management with the formation of loan loss provisions occurred in Indonesia in 2018. One of Indonesian conventional commercial banks revised its financial statements for 2015, 2016, and 2017 fiscal years due to management's discretionary actions in 2016 by charging less allowance for loan loss provisions than it should have. As a result, the bank had to revise a higher loan loss allowance (LLA) on the 2018 fiscal year's financial assets, increasing the bank's loan loss provisions (LLP).

Financial instrument risk disclosures by IFRS 7 in the banking industry should be a minimum standard disclosed by banks. However, there is a scarcity of study from developing countries on the quality of IFRS 7 disclosure and earnings management (Uwuigbe et al., 2017). IFRS 7 disclosure requirements describe broad risks such as market, credit, and liquidity risk (Vojácková, 2015). Another thing in IFRS 7 requires entities to make possible disclosures for stakeholders and appraise the basics and risks that can arise from financial instruments. However, not all banks disclose these risks following applicable regulations (Pobrić, 2019). Previous studies (Allini et al., 2020; Glaum et al., 2013) still question the level of transparency in IFRS 7 disclosure even though the standard requires it. Accounting standards try to increase transparency in the banking scheme (Bischof & Ebert, 2009), arguing that increased IFRS 7 disclosure risks tend to reduce volatility (Renaud & Victoria-Feser, 2010) and improve performance over disclosure information (Wakaisuka-Isingoma, 2019). Previous studies from developed and developing countries have also observed disclosure performs related to corporate governance and earnings management, intentional disclosure, and firm value, firms' disclosure from an agency standpoint, corporate governance and intentional disclosure and earnings management (Al-Akra & Ali, 2012; Pajunen & Saastamoinen, 2013).

In this study, researchers try to link the scarcity of IFRS 7 disclosure with the earnings management studies described earlier which is associated with several new trends in the current banking world which can disrupt the Indonesian banking business cycle. First, Central Bank of Indonesia regulation number 10/37/PBI/2008 prohibits the sale of bank derivative products for a speculative purpose and the emergence of new bank derivative products for hedging purposes (Bank Indonesia, 2008). Second, every year, incremental banks' non-interest income, such as securities trading, foreign exchange, credit cards, and others, is overgrowing. Then, the emergence of various credit distribution options in the community that no longer depend on bank loans indirectly disrupts the bank's function as an intermediary institution (collecting funds and channeling them back through credit). Some previously described trends can be an incentive or obstacle for managers to carry out discretionary loan loss provisions. In addition, researchers want to verify the effect of financial instrument risk disclosures under IFRS 7, which include credit, liquidity, and market risk that support derivative instruments, diversification, and the liquidity ratio disclosed in this study. Some of the previously described trends can be an incentive or obstacle for managers to carry out discretionary loan loss provisions.

The originality of this study lies in the new earnings management measurement by developing loan loss provisions measurements (Kanagaretnam et al., 2010) and adding credit restructuring indicators to the calculation of discretionary accruals and non-discretionary accruals from loan loss provisions. Practically, determining the

allowance for credit losses due to credit restructuring allows the banking management's discretion in assessing the debtor's business prospects because the principle-based accounting mechanism sets the value of the allowance for credit losses due to loan restructuring. The banks consider the allowance for impairment losses for credit restructuring as an indicator of loan loss provision because it is a form of risk management from indicators that result in credit loss events (Basel Committee on Banking Supervision, 2017; International Accounting Standard Board Committee Foundation, 2016). But on the other hand, in determining the amount of loan loss provisions due to credit restructuring, it allows for the discretion of banking management in assessing the debtor's business prospects because principle-based accounting in setting the value of allowance for loan loss provisions due to credit restructuring, which means that the amount of the allowance is determined by management.

This study contributes theoretically to the new earnings management measurement by applying more prudential principles based on the IFRS framework, IFRS 9 and Basel III regulations.This study also has several practical contributions for various parties. Firstly, this study is expected to advice for future researchers and banking management to measure earnings management with complex (add restructuring) indicators. Secondly, researchers expect that the Indonesian Financial Services Authority (OJK) can control more closely the reserve charge for any signal of loan losses to minimize earnings management. Researchers also expect the bank management can increase the quality of IFRS 7 disclosure implementation in the banking industry as a form of transparency of critical information to stakeholders. Last, for Standard Drafting Board of the Indonesian Institute of Accountants, this study is expected to provide another information regarding the implementation of IFRS 7 (PSAK 60) in Indonesian banking industry so that it can be better and applied in accordance with banking conditions in Indonesia.

Literature review and Hypothesis Development

Agency theory

Agency theory explains management's involvement in earnings management, considering management relationships and agency principles. By sacrificing stewardship relationships, entity management will protect their interests in front of investors (Noor et al., 2015). If investors, creditors, independent board of directors and auditors fail to regulate properly, using control mechanisms, management will use their power to fulfill their interests (Fathi, 2013; Yimenu & Surur, 2019).

In this study, agency theory explains the phenomenon of risk disclosure of financial instruments that are voluntary disclosures in many countries with different social, political, and economic contexts (Akhtaruddin & Hossian, 2008; Ferguson et al., 2002; Hossain & Taylor, 2007). IFRS 7 disclosure is considered as a monitoring mechanism in agency theory. The demand for financial disclosure and reporting arises from information asymmetry along with agency conflict between managers and outside investors (Healy & Palepu, 2001). Apart from that, agency theory is also related to the association of derivative instruments on earnings management (Murwaningsari et al., 2015; Oktavia et al., 2019), income diversification on earnings management (Amidu & Kuipo, 2015; Coffie et al., 2018; Hitt et al., 2017), and liquidity ratios on earnings management (Desta, 2017; Kanagaretnam et al., 2004; Valdiansyah & Murwaningsari, 2022).

Legitimacy Theory

Legitimacy theory is an entity management system that leads to partiality towards society, government, individuals, and community groups (Gray et al., 1996). The theory of legitimacy informs that the entity will ensure its actions and activities are within the limits and norms that are generally accepted where the entity operates. The manager or the entity itself, to legitimize the entity's existence, usually uses financial information disclosed to the public.

In this study, transparency through risk disclosure of banking financial instruments and opportunistic behavior has become necessary to be assessed by both public entities and government agencies (Vladu & Cuzdriorean, 2014). The increased need for good investment decisions that have the potential to improve social welfare is strongly associated with mandatory disclosure, which results in greater transparency (Hirst et al., 2003). In this context, one can only argue that the objective and moral obligation of financial accounting is to achieve transparency (Nielsen & Madsen, 2009). Previous studies have shown that greater financial reporting transparency can reduce information asymmetry thereby facilitating the detection of earnings management (Hunton et al., 2006; Vladu & Cuzdriorean, 2014).

Hypothesis Development

Agency theory states that company management generally avoids the risk of earnings volatility when hedging on derivative instruments (Eisenhardt, 1989). Companies that use derivatives for hedging purposes are considered more translucent in revealing evidence to outsiders than companies that employ derivatives for speculative purposes. As a result, it provides assurance that companies that use financial derivatives extensively for hedging purposes will be less involved in the practice of provisioning for loan losses. The findings indicate that financial derivatives and earnings management are traded off (Huang et al., 2009; Oktavia et al., 2019).

Due to the lack of disclosure of financial instrument risks in accordance with IFRS 7, information asymmetry issues may arise. Managers should disclose the information required by regulations to inform stakeholders (Consoni et al., 2017). When the disclosure value is high, stakeholders are well informed about the firm's actions and, consequently, can detect loan loss provisions (Jo & Kim, 2007). Further, with the support of a high level of IFRS 7 disclosure, it strengthens the negative effect of derivative instruments on loan loss provisions because high disclosure quality will border the tendency of managers to manipulate provisions (Fields et al., 2001; Jo & Kim, 2007). These efforts aim to reduce information asymmetry or suppress loan loss provisions, thereby increasing investors' capacity to make choices and monitor investments accurately.

H1: IFRS 7 disclosure strengthens the negative effect of derivative instruments on discretionary loan loss provisions

Firms use diversification strategies to create value through economies of scope, financial, or market power (Barney, 1991). In addition, diversification also has costs that the company must incur in its implementation to achieve the expected earning. These costs include difficulties related to coordination, asymmetry information, and incentive misalignment (Denis et al., 2000). If banking incomes are sufficiently diversified, this can upsurge information asymmetry between management and stakeholders. Thus, the income diversification effect has a more decisive manipulation action, where the board cannot monitor or provide incentives properly (Amidu & Kuipo, 2015). Previous studies (Amidu & Kuipo, 2015; Q. Tran & Tran, 2020) show that diversification positively affects earnings

management. By diversifying non-interest income, banks with greater market power can improve earnings management (Coffie et al., 2018).

On the other hand, transparency through IFRS 7 disclosure needed to avoid high information asymmetry. Because of increasing information asymmetry, managers can use their discretion to manage stated earnings (Consoni et al., 2017). Consistent with the statement, other studies have shown that company disclosure reports are inversely correlated with earnings management (Iatridis & Kadorinis, 2009; Jo & Kim, 2007). High quality of disclosure can improve the ability of investors and analysts to identify loan loss provisions, thereby reducing managers' incentives to manipulate reported earnings. In other words, IFRS 7 disclosure are expected to reduce or eliminate income diversification information asymmetry, which the board cannot properly monitor or incentivize (Amidu & Kuipo, 2015).

H2: IFRS 7 disclosure weakens the positive effect of income diversification on discretionary loan loss provisions.

In positive accounting theory which is a derivative of agency theory, the debt plan hypothesis predicts that managers carry out credit distribution policies by choosing accounting methods that can increase earnings, loosen credit distribution constraints, and reduce technical default costs (Watts & Zimmerman, 1986). Given that the provisioning burden on credit loans is a function of the risk perceived by the bank, bank managers have incentives to reduce large fluctuations when the value of credit loans is more significant than third-party funds (Desta, 2017). The existing management and shareholders would advantage from this behavior if the bank could increase additional credit loans on more favorable terms (reducing credit loan costs by setting up a smaller loan loss provisions). Therefore, management can explicitly consider the liquidity ratio as an additional motivation to carry out bank earnings management (Desta, 2017; Kanagaretnam et al., 2004; Religiosa & Surjandari, 2021).

Limited transparency for users regarding risk exposures can lead to information asymmetry. IFRS 7 disclosure explains liquidity risk, which includes disclosing the risks faced by banks in terms of lending or third-party funds owned as a form of liquidity ratio indicator from a qualitative and quantitative perspective. Thus, firm shareholders with other constant disclosure policies will undoubtedly notice increasing banking transparency and loan loss provisions. Under these situations, managers tend not to carry out loan loss provisions because their purposes and usefulness depend on information asymmetry (Consoni et al., 2017; Uwuigbe et al., 2017). Given these explanations, the researchers contend that high IFRS 7 disclosure by banks reduce information asymmetry caused by liquidity ratios and earnings management.

H3: Disclosure of Financial Instrument Risk weakens the positive effect of liquidity ratios on Discretionary Loan Loss Provisions

Data and methodology

The sample for this study includes 129 conventional commercial listed banks on the Indonesia Stock Exchange and 116 conventional commercial non-listed banks in 2015-2020. The researchers did not enter the 2021 fiscal year financial data because, at the time of data collection, most Indonesian commercial banks had not published their annual reports. The data in this study comes from the annual banking reports published through the official websites of their respective banks.

In this study, the researchers used Moderated Regression Analysis (MRA) by assuming the IFRS 7 disclosure as a pure moderator to avoid being biased in the regression results (Sharma et al., 1981). The researchers make the fair value of derivative instruments, income diversification, and liquidity ratios as independent variables, while earnings management as the dependent variable. The researchers also use pre-managed earnings, capital adequacy ratio, and banking size as control variables to complete this regression equation. The MRA equation of this research is formulated as follows:

$$ABS\_DLLP = \alpha_0 + \alpha_1 DERIV + \alpha_2 DIVER + \alpha_3 LDR + \alpha_4 FIRD*DERIV + \alpha_5 FIRD*DIVER + \alpha_6 FIRD*LDR + \alpha_7 CAR + \alpha_8 SIZE + \alpha_9 EBTP + \varepsilon \quad (1)$$

where, ABS_DLLP = Absolute value of discretionary loan loss provisions; a0 = Constant; $a_{1,2,3,\ldots 9}$ = Coefficient of each variables; DERIV = Derivative Instruments; DIVER = Diversification; LDR = Liquidity Ratio; FIRD = IFRS 7 Disclosures; EBTP = Pre-managed Earnings; CAR = Capital Adequacy Ratio; SIZE = Firm Size; * = Moderating Effect

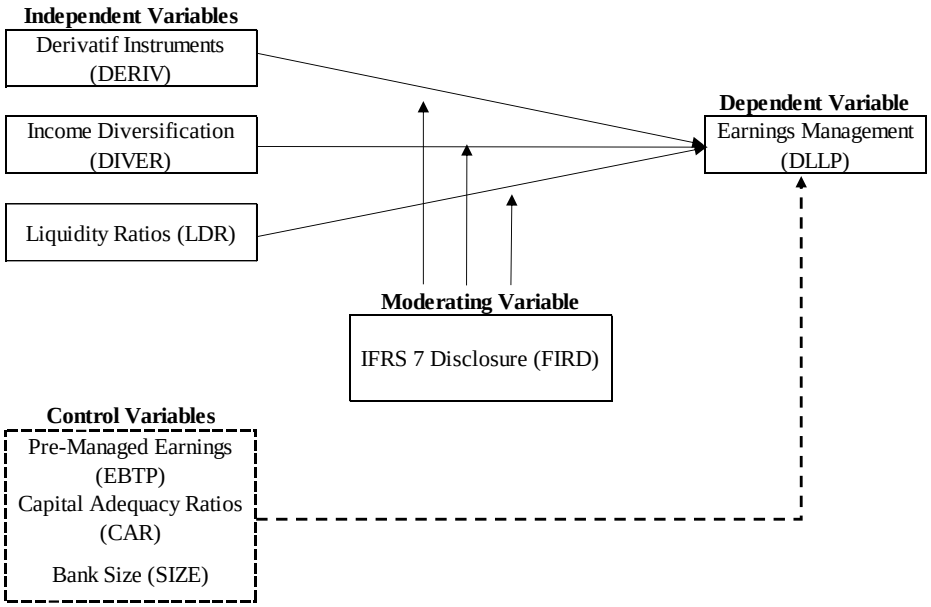

Figure 1. Conceptual Framework

The researchers developed the modified earnings management measurement in response to the limitations of previous measurements in the banking industry (Kanagaretnam et al., 2010), which are thought to lack the principle of prudence. The researchers see that previous indicators regarding the provision for loan losses that should have been charged in credit restructuring actions have not been considered. Credit restructuring is one indicator that results in credit loss events, and banks must consider these events in determining loan loss provisions (Basel Committee on Banking Supervision, 2017). The accounting standard in IFRS 9 par. 5.5.11 states that loan risk grows significantly before a financial instrument matures or other borrower-specific aspects lag (e.g., modification or restructuring). Another argument for entering this indicator is based on the IFRS framework. IASB describes “cautious prudence” as “the exercise of prudence when making judgments under conditions of uncertainty” (paragraph 2.18). The concept

of prudence does not allow the overstatement or understatement of assets, liabilities, income, or expenses (International Accounting Standard Board Committee Foundation, 2016).

$$LLP_{it} = a_0 + a_1 LLA_{t-1} + a_2 NPL_{t-1} + a_3 DNPL_{it} + a_4 CO_{it} + a_5 LOAN_{it} + a_6 DLOAN_{it} + a_7 RESTR_{it} + e_{it} \quad (2)$$

Derivative instruments are classified based on the hedging design, which is constructed on the absolute value of the net fair value of the derivative instrument (Firmansyah et al., 2020; Oktavia & Martani, 2013). Information regarding the value of derivatives for hedging purposes is presented at fair value in the financial statements notes following the necessities of IAS 39 or IFRS 9.

Banking strategies that rely more on generating non-interest income are riskier. Following previous studies, researcher considers income diversification by comparing non-interest income with total net operating income (Amidu & Kuipo, 2015; Coffie et al., 2018; D. V. Tran et al., 2019).

The researcher uses the percentage of total loans to total deposits as a measure of liquidity ratios. The liquidity is low or illiquid if the ratio is too high. On the other hand, if the ratio is too low, the bank's income does not reach the target. Several previous studies often cite this measure as a barometer for liquidity (Desta, 2017; Kanagaretnam et al., 2004; Valdiansyah & Murwaningsari, 2022).

The financial instrument risk disclosure has been constructed following the requirements of IFRS 7. This measurement is based on qualitative and quantitative information about credit, market, and liquidity risk (paragraph 7:36 7:37-7:38-7:39-7:40 of IFRS 7). Manual content analysis has been implemented to construct the FIRD index of the bank's annual report. This is consistent with previous studies (Allini et al., 2020; Glaum et al., 2013). For more details, all the measurements of variables in this study can be seen in table 1.

Table 1. Variable Measurements

Variables			Measurements
Derivative Instruments	DERIV	=	$\frac{\text{Absolute net fair value of the derivative instruments}}{\text{Total assets in beginning year}}$
Diversifications	DIVER	=	$\frac{\text{Non-interest income}}{\text{Total net operating income}}$
Liquidity	LDR	=	$\frac{\text{Total Loans}}{\text{Total Deposits}}$
IFRS 7 Disclosure	FRID	=	$FRID_{QN} + FRID_{QL}$
Loan Loss Provisions	LLP_OLD	=	$a_0 + a_1LLA_{t-1} + a_2NPL_{t-1} + a_3DNPL_{it} + a_4CO_{it} + a_5LOAN_{it} + a_6DLOAN_{it} + e_{it}$
	LLP_NEW	=	$a_0 + a_1LLA_{t-1} + a_2NPL_{t-1} + a_3DNPL_{it} + a_4CO_{it} + a_5LOAN_{it} + a_6DLOAN_{it} + a_7RESTR_{it} + e_{it}$
Capital Adequacy	CAR	=	$\frac{\text{Tier 1 Capital + Tier 2 Capital}}{\text{Risk Weighted Assets}}$
Bank Size	SIZE	=	Ln (Total Assets)
Pre-managed Earnings	EBTP	=	$\frac{\text{Earning before tax and provisions}}{\text{Total Assets in beginning year}}$

Results and Discussion

Table 2 presents the descriptive statistics for this study. The researchers separate the sample between listed and non-listed banks because some differences in the characteristics and responsibilities of each banking group. Panel A in table 2 shows the average earnings management with the previous measurement (DLLP_OLD) (Kanagaretnam et al., 2010) and the modified measurement (DLLP_NEW) offered by the researchers with discretion to decrease earnings (positive coefficient). In theory, this implies that the average listed banking sample in Indonesia engages in discretionary income minimization; that is, by recognizing a higher provisioning expense, reported earnings will be lower (Scott & O'Brien, 2019). However, this action contradicts the discretionary value of non-listed banks whose earning increases (negative coefficient).

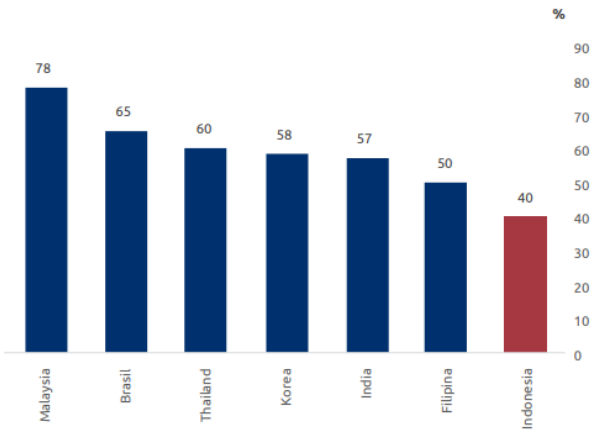

Figure 2. Derivative Instruments composition on total transaction
Source: Bank Indonesia, BIS Triennial Survey 2019
https://www.bi.go.id/en/publikasi/laporan/Documents/10.LPI2020_full.pdf

Panels A and B of table 2 show that derivative transactions in Indonesian banks are still relatively low. This is consistent with the fact that derivative transactions in Indonesian banking are still relatively low compared to other countries such as Malaysia, the Philippines, and Thailand (ASEAN) and several other countries such as Brazil, Korea, and India (Figure 1). This phenomenon has also become the focus of the government (Bank Indonesia) in terms of developing and exploring liquid, efficient, and in-depth financial markets through Bank Indonesia regulation number 24/7/PBI/2022 concerning transactions in the foreign exchange market. In addition, the goal of the financial market deepening and development program is also directed at supporting increased economic growth through the creation of alternative sources of financing for national development (Bank Indonesia, 2020).

The diversification variable (DIVER) explains that the average percentage of the non-interest income of banks sample is 24.81% and 25.94%, implying that the research sample's primary banking activities still rely on the majority of the income derived from interest income. Average liquidity ratio for listed banks is 84.11%. This ratio is under Central Bank of Indonesia policy number 17/11/PBI/2015, so banking liquidity has a liquidity ratio of around 78% - 92%. However, for non-listed banks, the liquidity ratio is above the threshold determined by the central bank, which implies that non-listed banks in Indonesia are experiencing liquidity problems. The average value in the IFRS 7 disclosure (FIRD) ranges from 63-66%, implying that the banks sampled in this study revealed 15-17 items out of a total of 25 disclosure items. This study also estimates the collinearity matrix in table 3, which shows no multicollinearity problem.

Table 2. Descriptive Statistics

Panel A: Listed Banks					
Variable	Mean	Max	Min	Std. Dev.	N
DLLP_OLD	0.0131	0.0417	-0.0128	0.0111	129
DLLP_NEW	0.0109	0.0365	-0.0171	0.0109	129
DERIV	0.0010	0.0157	0.0000	0.0026	129
DIVER	0.2481	0.8965	0.0169	0.1525	129
LDR	0.8411	1.6310	0.1259	0.1639	129
FIRD	0.6620	0.8400	0.5200	0.0773	129
CAR	0.1973	0.3570	0.1052	0.0439	129
Ln (SIZE)	32.2597	34.9521	29.5336	1.4587	129
EBTP	0.0249	0.0685	-0.0332	0.0192	129
Panel B: Non-Listed Banks					
Variable	Mean	Max	Min	Std. Dev.	N
DLLP_OLD	-0.0021	0.0469	-0.0283	0.0125	116
DLLP_NEW	-0.0017	0.0469	-0.0277	0.0130	116
DERIV	0.0065	0.1303	0.0000	0.0169	116
DIVER	0.2594	0.7941	0.0013	0.1653	116
LDR	1.3211	9.9674	0.2302	1.0521	116
FIRD	0.6366	0.7600	0.5200	0.0534	116
CAR	0.3153	0.8775	0.1510	0.1650	116
Ln (SIZE)	31.0333	32.7806	28.5437	0.9750	116
EBTP	0.0344	0.3198	0.0074	0.0405	116

The results of models 1 and 2 in table 4 show that the regression results are not significantly different between listed and non-listed banks. The difference is only seen in the coefficient value of the influence of research variables on discretionary loan loss provisions of listed banks, which is greater than that of non-listed banks. In listed banks, public shareholders require management to fulfil the requirements of a listed company on the Indonesia Stock Exchange. With this obligation, the management presssure of listed banks to carry out earnings management is greater than that of non-listed banks. Listed banking management often protects their interests in front of investors to fulfil the public investor's demands (Noor et al., 2015; Yimenu & Surur, 2019).

Table 3. Correlation Matrix

Panel A: Listed Banks

	DERIV	DIVER	LDR	FIRD	CAR	SIZE	EBTP
DERIV	1.00000						
DIVER	0.08413	1.00000					
LDR	0.02137	-0.46938	1.00000				
FIRD	0.02766	-0.03457	0.28161	1.00000			
CAR	0.09747	-0.07163	0.03837	0.10436	1.00000		
SIZE	0.13228	-0.02896	0.29533	0.58866	0.18926	1.00000	
EBTP	0.05046	-0.10693	0.32137	0.51545	0.40167	0.70882	1.00000

Panel B: Non-listed Banks

	DERIV	DIVER	LDR	FIRD	CAR	SIZE	EBTP
DERIV	1.0000						
DIVER	0.0421	1.0000					
LDR	-0.0340	-0.3531	1.0000				
FIRD	-0.0265	0.1777	-0.0023	1.0000			
CAR	-0.0247	-0.0482	0.3785	0.0713	1.0000		
SIZE	-0.3423	0.1075	0.0032	0.2988	-0.0149	1.0000	
EBTP	0.4284	0.2696	-0.1280	-0.0071	0.1288	-0.3805	1.0000

Table 4. Moderated Regression Analysis (Main Analysis)

Variables	Pred. Sign	Model 1		Model 2	
		Coefficient	Prob.	Coefficient	Prob.
C		-0.1112	0.0000	0.0184	0.1391
DERIV	-	-17.4186	0.0021***	-1.7885	0.0000***
DIVER	+	0.0562	0.0773*	0.0356	0.0739*
LDR	+	-0.0028	0.8178	0.0034	0.4732
FRID*DERIV	+	30.7422	0.0004***	2.5834	0.0000***
FRID*DIVER	-	-0.1003	0.0555*	-0.0617	0.0454**
FRID*LDR	-	0.0179	0.2797	0.0012	0.8715
CAR		-0.0071	0.6361	-0.0079	0.0004***
SIZE		0.0036	0.0000***	-0.0005	0.2102
EBTP		0.0068	0.8932	0.0412	0.0001***
N Samples		129		116	
R-squared		0.5071		0.3751	
Adj. R-squared		0.4699		0.3221	
F (Prob)		0.0000		0.0000	

Notes: *p-value <0.1; **p-value<0.05; ***p-value<0.001

The first hypothesis of models 1 and 2 states that IFRS 7 disclosure mitigate the negative effect of derivative instruments on earnings management. Derivative instruments for hedging purposes are more transparent in disclosing evidence than firms that use derivatives for speculative purposes. Thus, it provides assurance that banks that make extensive use of hedging derivatives instruments will be less involved in discretionary banking practices. In addition, the Central Bank of Indonesia, through regulation number 15/8/PBI/2013 requires banks to comply with regulations to carry out hedging for derivative transactions to implement bank risk management. This is completed because of the function of banking as an intermediary institution that manages customer funds, so the use of these funds must be managed with prudence. The higher the use of hedging derivatives instruments, the lower the magnitude of discretionary actions. This study suggests a trade-off between derivatives instruments and earnings management (Cadot et al., 2021; Choi et al., 2015; Oktavia et al., 2019).

Table 5. Financial Instrument Risk (IFRS 7) Disclosure Scores

Fiscal Year	$FIRD_{Qn}$	$FIRD_{Ql}$	TFIRD
2015	0.6447	0.6733	0.6592
2016	0.6316	0.6733	0.6504
2017	0.6332	0.7000	0.6612
2018	0.6468	0.6733	0.6596
2019	0.6447	0.7000	0.6688
2020	0.6316	0.7167	0.6660

Notes: $FIRD_{Qn}$: IFRS 7 Disclosures (Quantity Aspect); $FIRD_{Ql}$: IFRS 7 Disclosures (Quality Aspect); TFIRD: Total IFRS 7 Disclosures

Regarding IFRS 7 disclosure on derivative instruments, the Indonesian Financial Services Authority (OJK) regulations number SEOJK No. 34/SEOJK.03/2016 states that the bank should estimate risks that may occur not only from liquidity risk but also from market risk. Regulations number SEOJK No.48/SEOJK.03/2017 concerns the application of risk management for commercial banks and credit risk guidelines for calculating net claims for derivative transactions in calculating risk-weighted assets. From those explanation, high disclosures are required to reduce the information asymmetry of derivative instruments on earnings management to strengthen the negative effect of derivative instruments on earnings management. The descriptive statistics panel A and panel B in table 2 and table 5 show that the average IFRS 7 disclosure score is around 63-66%, which is considered low compared to previous studies that can minimize discretionary accruals, 83% (Uwuigbe et al., 2017). The value of IFRS 7 disclosure in this study is also relatively low when compared to other countries such as Spain (85%) and England (86%) (Allini et al., 2020), so it supports the results of research on why IFRS 7 disclosure weaken the influence of the derivatives instruments on discretionary loan loss provisions.

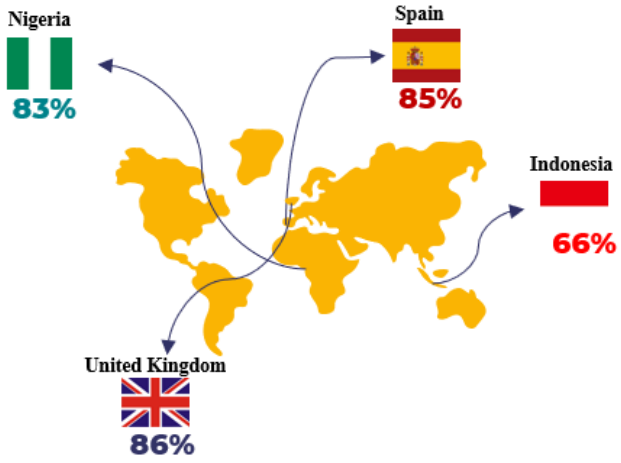

Figure 3. Average Score of IFRS 7 Disclosures

The second hypothesis test in models 1 and 2 explain that IFRS 7 disclosure weakens the positive effect of diversification on discretionary loan loss provisions. The results follow the positive accounting theory in the bonus plan hypothesis, which states that banks with moderately diversified have higher information asymmetry than focused companies (Ajay & Madhumathi, 2015), thus motivating managers to manipulate earnings to achieve the bonus.

Banks that diversify too much income in market-based activities undermine the core function of banking. This highlights the uneconomic scope of merging traditional commercial banking and market-based activities, mainly when financial markets are deeper (Abedifar et al., 2018).

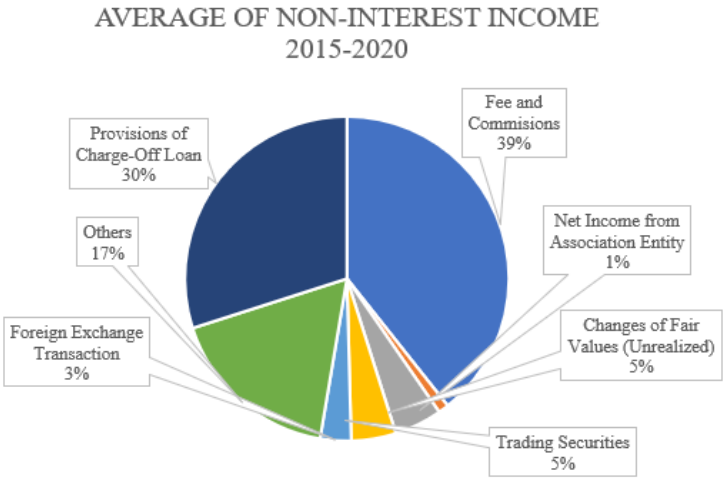

Figure 4. Average of Non-Interest Income

As a result, lower credit exposure can encourage managers to be less conservative in their lending activities, leading to significant credit failures. This action becomes a gap for managers to manage earnings. The results of this study are consistent with some studies (Amidu & Kuipo, 2015; Chin et al., 2009).

Based on figure 3, The highest component of non-interest income lies in two types of income (fees and commissions and provisions off charge-off loans). Nearly 70% of non-interest banking income annually in the 2015-2020 period is controlled by these two types of income. The result is consistent with the facts where the earnings management case in 2018 occurred due to credit card income originating from fee and commission income. The higher the fee and commission income, the higher the incentives that will be obtained by management, and the greater the possibility of management exercising discretion over the loan loss provisions.

Furthermore, the moderating effect on IFRS 7 disclosure does not have such a significant effect. However, it is considered sufficient to weaken the information asymmetry of the effect of income diversification on banking discretionary loan loss provisions. In this study, IFRS 7 disclosure only explain diversification indicators through market risk from the bank's net interest income. In the disclosure of market risk, banks are required to disclose a sensitivity analysis for the respective category of market risk faced by the bank that shows how profit or loss and equity may be affected by deviations in the relevant risk variables that have a direct impact on net interest income which is also one of the calculation indicators of diversification so that the disclosure provide sufficient information to minimize information asymmetry from diversification and loan loss provisions.

The results of the third hypothesis state that IFRS 7 disclosure does not moderate the positive effect of liquidity on discretionary loan loss provisions. Following Central Bank of Indonesia regulation Number 15/7/PBI/2013 about the minimum statutory reserve requirement for commercial banks in local and foreign currencies, it is regulated that adequate banking liquidity needs to be maintained in the range of 78%-92% is set for commercial banks so that banks maintain the upper and lower limits of the liquidity ratio itself due to the nature of banking which is a highly regulated

institution. These results align with the legitimacy theory, which explains that banks seek to ensure that their actions and activities are within the boundaries and norms of the society in which they operate. This study's results align with previous studies (Kalbuana et al., 2022). On the other hand, IFRS 7 disclosure in which it discloses liquidity risk from both a qualitative and quantitative perspective also cannot weaken (strengthen) the positive (negative) influence of liquidity on discretionary loan loss provisions. This result happens because there is no significant influence between liquidity and earnings management, so disclosing financial instrument risk cannot change this influence. Even if viewed from a coefficient perspective, there is a change in direction indicating that IFRS 7 disclosure can weaken (strengthen) the influence of liquidity on discretionary loan loss provisions.

Sensitivity Analysis

The sensitivity analysis in this study compares bank earnings management using the previous model (Kanagaretnam et al., 2010) in table 4 model 3. The results show that the modified discretionary models offered by the researchers have a similar result with previous model. Modified model (Model 1) has better results than model 3 because has a more significant adj-R^2. Another argument shows that by adding the restructuring indicator to the measurement of model 1, diversification positively affects earnings management. This result indicates that the effect of diversification on discretionary loan loss provisions can be detected with the inclusion of restructuring as an indicator of loan loss provisions. One reason for credit restructuring is non-interest income, which indicates that the customer is in severe financial struggle. The default indication increases, so the manager's incentive to carry out earnings management actions increases. In the end, with the credit restructuring indicators of the loan loss provisions model, valuations of earnings management are more prudent by stating that there is another objective evidence that may result in an impairment of observable data concerning economic events or laws relating to borrowers' financial difficulties (Basel Committee on Banking Supervision, 2017; International Accounting Standard Board Committee Foundation, 2016; Otoritas Jasa Keuangan, 2020)

Table 6. Moderated Regression Analysis (Sensitivity Analysis)

Variables	Pred. Sign	Model 1		Model 3	
		Coefficient	Prob.	Coefficient	Prob.
C		-0.1112	0.0000	-0.1332	0.0000
DERIV	-	-17.4186	0.0021***	-14.6561	0.0066***
DIVER	+	0.0562	0.0773*	-0.0112	0.7115
LDR	+	-0.0028	0.8178	-0.0052	0.6470
FRID*DERIV	+	30.7422	0.0004***	26.5003	0.0013***
FRID*DIVER	-	-0.1003	0.0555*	0.0143	0.7747
FRID*LDR	-	0.0179	0.2797	0.0009	0.9565
CAR		-0.0071	0.6361	-0.0059	0.6769
SIZE		0.0036	0.0000***	0.0047	0.0000***
EBTP		0.0068	0.8932	-0.0417	0.3841
N Samples		129		129	
R-squared		0.5071		0.4830	
Adj. R-squared		0.4699		0.4439	
F (Prob)		0.0000		0.0000	

Notes: *p-value <0.1; **p-value<0.05; ***p-value<0.001

References

Abedifar, P., Molyneux, P., & Tarazi, A. (2018). Non-interest income and bank lending. *Journal of Banking & Finance*, *87*, 411–426. https://doi.org/10.1016/j.jbankfin.2017.11.003

Ajay, R., & Madhumathi, R. (2015). Do corporate diversification and earnings management practices affect capital structure? *Journal of Indian Business Research*, *7*(4), 360–378. https://doi.org/10.1108/JIBR-01-2015-0008

Akhtaruddin, M., & Hossian, M. (2008). Investment opportunity set, ownership control and voluntary disclosures in Malaysia. *JOAAG*, *3*, 25–39.

Al-Akra, M., & Ali, M. J. (2012). The value relevance of corporate voluntary disclosure in the Middle-East: The case of Jordan. *Journal of Accounting and Public Policy*, *31*(5), 533–549. https://doi.org/10.1016/j.jaccpubpol.2011.10.007

Allini, A., Ferri, L., Maffei, M., & Zampella, A. (2020). Determinants of financial instruments risk disclosure: An empirical analysis in the banking sector. *Corporate Ownership and Control*, *17*(2), 20–31. https://doi.org/10.22495/cocv17i2art2

Amidu, M., & Kuipo, R. (2015). Earnings management, funding and diversification strategies of banks in Africa. *Accounting Research Journal*, *28*(2), 172–194. https://doi.org/10.1108/ARJ-07-2013-0045

Balla, E., & Rose, M. J. (2015). Loan loss provisions, accounting constraints, and bank ownership structure. *Journal of Economics and Business*, *78*, 92–117. https://doi.org/10.1016/j.jeconbus.2014.12.003

Bank Indonesia. (2008). *Peraturan Bank Indonesia Nomor 10/37/PBI/2008 Tentang Transaksi Valuta Asing terhadap Rupiah*.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Basel Committee on Banking Supervision. (2017). *Basel III: Finalising post-crisis reforms*. https://www.bis.org/bcbs/publ/d424.htm

Basu, S., Vitanza, J., & Wang, W. (2020). Asymmetric loan loss provision models. *Journal of Accounting and Economics*, *70*(2–3), 101359. https://doi.org/10.1016/j.jacceco.2020.101359

Bischof, J., & Ebert, M. (2009). Bank Disclosures Under IFRS and Biases in the Risk Perception of Financial Instruments. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1506966

Cadot, J., Rezaee, A., & Benaïs Chemama, R. (2021). Earnings management and derivatives reporting: evidence from the adoption of IFRS standards in Europe. *Applied Economics*, *53*(14), 1628–1637. https://doi.org/10.1080/00036846.2020.1841085

Chin, C.-L., Chen, Y.-J., & Hsieh, T.-J. (2009). International Diversification, Ownership Structure, Legal Origin, and Earnings Management: Evidence from Taiwan. *Journal of Accounting, Auditing & Finance*, *24*(2), 233–262. https://doi.org/10.1177/0148558X0902400205

Choi, J. J., Mao, C. X., & Upadhyay, A. D. (2015). Earnings Management and Derivative Hedging with Fair Valuation: Evidence from the Effects of FAS 133. *The Accounting Review*, *90*(4), 1437–1467. https://doi.org/10.2308/accr-50972

Coffie, W., Amidu, M., & Sissy, A. (2018). The effects of market power on stability: do diversification and earnings strategy matter? *Afro-Asian J. of Finance and Accounting*, *1*(1), 1. https://doi.org/10.1504/AAJFA.2018.10015443

Consoni, S., Colauto, R. D., & Lima, G. A. S. F. de. (2017). Voluntary disclosure and earnings management: evidence from the Brazilian capital market. *Revista Contabilidade & Finanças*, *28*(74), 249–263. https://doi.org/10.1590/1808-057x201703360

Denis, D. J., Denis, D. K., & Yost, K. (2000). Global Diversification, Industrial Diversification, and Firm Value. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.244721

Desta, T. S. (2017). Consequence of loan loss provisions on earnings management behaviour: A study on the best African commercial banks. *South African Journal of Business Management*, *48*(3), 1–11. https://doi.org/10.4102/sajbm.v48i3.31

Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, *14*(1), 57. https://doi.org/10.2307/258191

Fathi, J. (2013). The Determinants of the Quality of Financial Information Disclosed by French Listed Companies. *Mediterranean Journal of Social Sciences*. https://doi.org/10.5901/mjss.2013.v4n2p319

Ferguson, M. J., Lam, K. C. K., & Lee, G. M. (2002). Voluntary Disclosure by State-owned Enterprises Listed on the Stock Exchange of Hong Kong. *Journal of International Financial Management and Accounting*, *13*(2), 125–152. https://doi.org/10.1111/1467-646X.00081

Fields, T. D., Lys, T. Z., & Vincent, L. (2001). Empirical research on accounting choice. *Journal of Accounting and Economics*, *31*(1–3), 255–307. https://doi.org/10.1016/S0165-4101(01)00028-3

Firmansyah, A., Utami, W., Umar, H., & Mulyani, S. D. (2020). The role of derivative instruments on risk relevance from emerging market non-financial companies. *Journal of Governance and Regulation*, *9*(2), 45–63. https://doi.org/10.22495/jgrv9i2art3

Glaum, M., Schmidt, P., Street, D. L., & Vogel, S. (2013). Compliance with IFRS 3- and IAS 36-required disclosures across 17 European countries: company- and country-level determinants. *Accounting and Business Research*, *43*(3), 163–204. https://doi.org/10.1080/00014788.2012.711131

Gray, R., Owen, D., & Adams, C. (1996). *Accounting & Accountability: Changes and Challenges in Corporate Social and Environmental Reporting*. Prentice Hall.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*(1–3), 405–440. https://doi.org/10.1016/S0165-4101(01)00018-0

Hirst, D. E., Jackson, K. E., Koonce, L., & Petroni, K. R. (2003). Improving Financial Reports by Revealing the Accuracy of Prior Estimates Discussion of "Improving Financial Reports by Revealing the Accuracy of Prior Estimates." *Contemporary Accounting Research*, *20*(1), 165–199. https://doi.org/10.1506/9T1W-PGGN-L36L-WD21

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2017). *Strategic Management: Competitiveness and Globalization.* Cengage Learning.

Hossain, M., & Taylor, P. (2007). The empirical evidence of the voluntary information disclosure in the annual reports of banking companies: The case of Bangladesh. *Corporate Ownership and Control*, *4*(3), 111–125. https://doi.org/10.22495/cocv4i3p10

Huang, P., Zhang, Y., Deis, D. R., & Moffitt, J. S. (2009). Do artificial income smoothing and real income smoothing contribute to firm value equivalently? *Journal of Banking & Finance*, *33*(2), 224–233. https://doi.org/10.1016/j.jbankfin.2008.07.012

Hunton, J. E., Libby, R., & Mazza, C. L. (2006). Financial Reporting Transparency and Earnings Management (Retracted). *The Accounting Review*, *81*(1), 135–157. https://doi.org/10.2308/accr.2006.81.1.135

Iatridis, G., & Kadorinis, G. (2009). Earnings management and firm financial motives: A financial investigation of UK listed firms. *International Review of Financial Analysis*, *18*(4), 164–173. https://doi.org/10.1016/j.irfa.2009.06.001

International Accounting Standard Board Committee Foundation. (2016). *IFRS 9 Financial Instruments.*

Jo, H., & Kim, Y. (2007). Disclosure frequency and earnings management☆. *Journal of Financial Economics*, *84*(2), 561–590. https://doi.org/10.1016/j.jfineco.2006.03.007

Kalbuana, N., Suryati, A., & Pertiwi, C. P. A. (2022). Effect of company age, audit quality, leverage, and profitability on earnings management. . *Nternational Journal of Economics, Business and Accounting Research (IJEBAR)*, *6*(1), 389–399.

Kanagaretnam, K., Lim, C. Y., & Lobo, G. J. (2010). Auditor Reputation and Earnings Management: International Evidence from the Banking Industry. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1533855

Kanagaretnam, K., Lobo, G. J., & Mathieu, R. (2004). Earnings Management to Reduce Earnings Variability: Evidence from Bank Loan Loss Provisions. *Review of Accounting and Finance*, *3*(1), 128–148. https://doi.org/10.1108/eb043399

Murwaningsari, E., Utama, S., & Rossieta, H. (2015). The Combined Effects of Financial Derivatives and Discretionary Accruals on the Value Relevance of Earnings and the Book Value of Equity. *Gadjah Mada International Journal of Business*, *17*(2), 179. https://doi.org/10.22146/gamaijb.6909

Nielsen, C., & Madsen, M. T. (2009). Discourses of transparency in the intellectual capital reporting debate: Moving from generic reporting models to management defined information. *Critical Perspectives on Accounting*, *20*(7), 847–854. https://doi.org/10.1016/j.cpa.2008.09.007

Noor, N. F. M., Sanusia, Z. M., Heang, L. T., Iskandar, T. M., & Isa, Y. M. (2015). Fraud Motives and Opportunities Factors on Earnings Manipulations. *Procedia Economics and Finance*, *28*, 126–135. https://doi.org/10.1016/S2212-5671(15)01091-6

Oktavia, O., & Martani, D. (2013). Tingkat pengungkapan dan penggunaan derivatif keuangan dalam aktivitas penghindaran pajak. *Jurnal Akuntansi Dan Keuangan Indonesia*, *10*(2), 129–146. https://doi.org/10.21002/jaki.2013.07

Oktavia, O., Siregar, S. V., Wardhani, R., & Rahayu, N. (2019). The Effects of Financial Derivatives on Earnings Management and Market Mispricing. *Gadjah Mada International Journal of Business*, *21*(3), 289. https://doi.org/10.22146/gamaijb.34112

Otoritas Jasa Keuangan. (2020). *Peraturan OJK Nomor 48/POJK.03/2020 Tentang perubahan atas peraturan Otoritas Jasa Keuangan nomor 11/POJK.03/2020 tentang Stimulus Perekonomian Nasional Sebagai Kebijakan Countercylicial Dampak Penyebaran Covid-19*.

Pajunen, K., & Saastamoinen, J. (2013). Do auditors perceive that there exists earnings management in goodwill accounting under IFRS? *Managerial Auditing Journal*, *28*(3), 245–260. https://doi.org/10.1108/02686901311304367

Pobrić, N. (2019). Currency risk exposure and its determinants: Theoretical and empirical research. *ACTA ECONOMICA*, *17*(30). https://doi.org/10.7251/ACE1730117P

Religiosa, M. W., & Surjandari, D. A. (2021). The Relation of Company Risk, Liquidity, Leverage, Capital Adequacy and Earning Management: Evidence from Indonesia Banking Companies. *Mediterranean Journal of Social Sciences*, *12*(1), 1. https://doi.org/10.36941/mjss-2021-0001

Renaud, O., & Victoria-Feser, M.-P. (2010). A robust coefficient of determination for regression. *Journal of Statistical Planning and Inference*, *140*(7), 1852–1862. https://doi.org/10.1016/j.jspi.2010.01.008

Scott, W. R., & O'Brien, P. (2019). *Financial Accounting Theory (8th Edition)* (8th ed.). Pearson.

Sharma, S., Durand, R. M., & Gur-Arie, O. (1981). Identification and Analysis of Moderator Variables. *Journal of Marketing Research*, *18*(3), 291. https://doi.org/10.2307/3150970

Tran, D. V., Hassan, M. K., & Houston, R. (2019). Activity strategies, information asymmetry, and bank opacity. *Economic Modelling*, *83*, 160–172. https://doi.org/10.1016/j.econmod.2019.02.008

Tran, Q., & Tran, N. A. T. (2020). Influence of financial indicators on earnings management behavior: evidence from Vietnamese commercial banks. *Banks and Bank Systems*, *15*(2), 167–176. https://doi.org/10.21511/bbs.15(2).2020.15

Uwuigbe, U., Amiolemen, O. O., Uwuigbe, O. R., Asiriuwa, O., & Jafaru, J. (2017). Disclosure Quality and Earnings Management of Selected Nigerian Banks. *Journal of Internet Banking and Commerce*, 1–12.

Valdiansyah, R. H., & Murwaningsari, E. (2022). Earnings quality determinants in pre-corona crisis: another insight from bank core capital categories. *Asian Journal of Accounting Research*, *7*(3), 279–294. https://doi.org/10.1108/AJAR-08-2021-0134

Vladu, A. B., & Cuzdriorean, D. D. (2014). Detecting Earnings Management: Insights from the Last Decade Leading Journals Published Research. *Procedia Economics and Finance*, *15*, 695–703. https://doi.org/10.1016/S2212-5671(14)00542-5

Vojácková, H. (2015). Financial Instruments: Meeting disclosure requirements defined by IFRS 7 in Energy Industry in the Czech Republic. *Accounting Research Journal*, 177–187.

Wakaisuka-Isingoma, J. (2019). Corporate governance and performance of financial institution. *Corporate Ownership and Control*, *16*(1–1), 203–216. https://doi.org/10.22495/cocv16i1c1art8

Watts, R. L., & Zimmerman, J. L. (1986). *Positive Accounting Theory*. Prentice-Hall Inc. http://www.jstor.org/stable/247880

Yimenu, K. A., & Surur, S. A. (2019). Earning Management: From Agency and Signalling Theory Perspective in Ethiopia. *Journal of Economics, Management and Trade*, 1–12. https://doi.org/10.9734/jemt/2019/v24i630181