

CORPORATE GOVERNANCE MODERATES THE EFFECT OF EFFICIENCY, INTELLECTUAL CAPITAL, LIQUIDITY ON BANKING EARNINGS MANAGEMENT

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Abstract

This study aims to see the effect of efficiency, intellectual capital, liquidity risk on earnings management with corporate governance as a moderating variable. This research also makes This study uses purposive sampling method as a sample selection method. The population of this research is all banking companies, amounting to 45 companies. Based on predetermined criteria, a sample of 33 companies was selected with an observation period of 6 years from 2015-2020. This study found that efficiency, intellectual capital, and corporate governance have a negative effect on earnings management. The variables of liquidity risk, firm size and capital adequacy have a positive effect on earnings management. For the moderating variable, corporate governance strengthens the relationship between efficiency and earnings management, as well as intellectual capital on earnings management. The moderating variable of corporate governance weakens the relationship between liquidity risk and earnings management.

Keywords : *Earning Management, Efficiency, Corporate governance, Liquidity, Intellectual Capital, Company Size, Capital Adequacy*

1. INTRODUCTION (TNR, 11 Bold)

Banking is a financial sector that is one of the pillars of Indonesia's economic growth. Both for the lower middle class and the upper middle class. The banking sector is an intermediary institution through saving or investment that requires funds through credit. Like all profit institutions, of course, banks must seek profitable growth and maximize shareholder wealth by increasing bank profitability, increasing firm value and on the other hand, increasing executive compensation and increasing tenure. One of the banking activities, namely saving and investment, is the main support for the flow of funds to the bank. Whereas investment or investment itself can affect the economy of a country. Investment decisions are contained in the company's financial statements. Financial reporting aims to communicate accounting information in helping users to make relevant business decisions for the company to maintain and improve its position and performance. This means that all information that describes the financial and economic conditions that affect the company is presented in the form of financial statements, where management has the prerogative to disclose the data in the financial statements. Managers' knowledge and skills in business serve as the key that the financial statements presented can convince and help report users to make a decision (Gede et al., 2014 : 689).

An important role is held by management in relation to the company's financial statements, but not infrequently the management actually manipulates the numbers contained in the financial statements so that it shows the condition of the company that seems to have good performance when in fact the company is in a state of disrepair. which is not good. c) explaining that this is done with the aim that users of financial statements continue to give their trust to the company and

attract investors to invest in the company. One form of deviation in the financial statements by the management is by influencing the level of profit or known as the practice of earnings management. Profit is a sensitive thing in the company's financial statements because profit is one of the important criteria for performance evaluation, therefore any disturbance that distorts the accuracy of the report, can affect the decisions of users of financial statements. (Abbaspour, 2017 : 99). (Yudiasuti & Wirasedana, 2018 : 131) also explained that it is profit information that has very important potential for both external and internal parties. Earnings information is also often the target or target of management engineering to prioritize their personal interests and this can be detrimental to shareholders or investors.

Indications of Earnings Management practices such as findings (Zainuldin & Lui, 2018) and (Nasution & Setiawan, 2020) there is a practice of Earnings Management in Banking. The earnings management philosophy is to take advantage of the flexibility of standard methods and accepted accounting principles. Of course, the various interpretations that can be drawn from the executive procedures of an accounting standard can be another reason for earnings management (Abbaspour, 2017 : 99). Earnings management is one of the important aspects of financial reporting quality and is a major issue among all company stakeholders. Earnings management occurs when managers use judgment in financial reporting and structuring transactions to alter financial statements to mislead a number of stakeholders about the economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers. (Jones & Sharma, 2001 : 21)

Table 1. Profit and Loss After Tax Conventional Commercial Bank

Types of Conventional Commercial Banks	Profit and Loss After Tax (in billion)				
	2015	2016	2017	2018	2019
Book 1	Rp 1.570	Rp 861	Rp 716	Rp 700	Rp 457
Book 2	Rp 9.948	Rp 10.327	Rp 10.298	Rp 9.225	Rp 9.001
Book 3	Rp 20.703	Rp 24.938	Rp 32.577	Rp 38.329	Rp 34.478
Book 4	Rp 71.571	Rp 69.466	Rp 86.589	Rp 98.998	Rp 108.356

Source: Indonesian Banking Statistics 2019

From the table, it can be seen that Bank Book 1 experienced a decline in profit from 2015 to 2019. Meanwhile, Bank Book 2 increased in 2016 and declined again until 2019. This is different from Bank Book 3 which always rose from 2015 to 2018 and fell. back in 2019. As was the case with Book 4 Bank which experienced a decline and an increase, but the most increase occurred in 2019 which was Rp108,356 billion. High banking profits are a reflection of high bank capital. Bank classification is based on Financial Services Authority Regulation Number 6/POJK.03/2016 concerning Business Activities and Office Networks Based on Bank Core Capital. (Financial Services Authority, 2016: 4) . Book 1 is a Bank with a core capital of up to less than Rp1,000,000,000,000,000. Book 2 is a Bank with a core capital of at least Rp1,000,000,000,000.00 to less than Rp5,000,000,000,000,000. Book 3 is a Bank with a core capital of at least Rp5,000,000,000,000 to less than Rp30,000,000,000,000,000. Book 4 is a Bank with a core capital of at least IDR 30,000,000,000,000. Based on the description above, it can be seen that if the capital of conventional commercial banks is large, the higher the classification of bank books. If a

bank has a good classification, it is expected to have good corporate governance. (Putri & Sujana, 2018 :17) if the company has good governance, it tends to reduce the opportunistic actions of managers in carrying out earnings management practices.

Table 2. Conventional Commercial Bank Third Party Funds

Types of Conventional Commercial Banks	Total Third Party Funds (in billion)				
	2015	2016	2017	2018	2019
Book 1	Rp 99.881	Rp 70.997	Rp 48.250	Rp 50.814	Rp 42.621
Book 2	Rp 539.936	Rp 571.782	Rp 573.711	Rp 549.986	Rp 621.089
Book 3	Rp 1.517.441	Rp 1.633.429	Rp 1.638.013	Rp 1.769.026	Rp 1.672.217
Book 4	Rp 2.080.909	Rp 2.354.143	Rp 2.791.010	Rp 3.003.015	Rp 3.373.744

Source: Indonesian Banking Statistics 2019

The table shows the amount of third party funds collected by the bank. That is, people believe in saving their funds in the banking sector. From the table above, it can be seen that book 4 banks have increased over the last 5 years, with large Third Party Funds allowing banks to manage with a wider reach with the hope of greater profits. However, large Third Party Funds are also a big responsibility by banks, the public will judge how well and how effective they are in managing their funds. The case that occurred in Indonesian banking, namely in 2018 at Bank Bukopin, indicated modification or manipulation of financial statements by using management on credit card business income, this modification caused Bukopin's credit position and commission-based income to increase improperly. The 2016 financial statement revision appeared on April 25, 2018, the profit in 2016 was previously recorded at Rp1.08 trillion to Rp183.56 billion (<https://ekonomi.kompas.com>, 2018). Then in 2000, Bank Indonesia Liquidity Bank (BLBI) bailout funds were issued amounting to Rp. 144.5 trillion, but 95% of the funds were misappropriated. (<https://www.bbc.com/indonesia>, 2019). As well as Century Bank which carried out fraudulent actions by management to customers, misappropriation of customer funds of up to Rp. 2.8 trillion and selling fictitious mutual funds that did not have permission from Bank Indonesia and Bapepam LK. (<https://news.detik.com>, 2010).

Management takes earnings management actions because it is driven by several factors. One of the factors that has an important relationship with earnings management and can help stakeholders to identify earnings management is leverage (Amidreza & Mortazavi, 2016). Leverage is debt used by the company to finance its assets in order to carry out its operational activities. Literature review Putu Elsa Pratiwi Dewi and Ni Gusti Putu Wirawati. The effect on earnings management highlights that leverage limits earnings management actions. If leverage increases, it will reduce earnings management actions taken by management, this happens for several reasons, namely: 1) taking advantage of necessary debt payments, thereby reducing money available to management for sub-optimal spending; 2) When a company uses debt financing, it is subject to lender oversight and is often subject to lender-induced spending restrictions (M. C. Jensen, 1986).

Corporate liquidity is the company's ability to pay off its short-term obligations. If the company has high current assets, the company's ability to pay off short-term obligations is said to be good and on time, which indicates that the company is in a liquid state. (Kurniawan & Suwanti, 2017 : 436). (Riahi et al., 2013 : 10) who conducted a study on the Tunisian foam effect which stated that there is a positive and significant relationship between earnings management achieved by Tunisian companies and market liquidity. Company size describes the size of a company which is indicated by total assets, total sales, and market capitalization. Companies that have larger assets allow for more earnings management practices because large companies face greater pressure from investors and financial analysis to show profits or positive profit increase (Ali et al., 2015 : 48). Due to this pressure, the greater the information asymmetry that aims to meet financial expectations (Nalarreason et al., 2019 : 20). Large companies are also more likely to carry out earnings management, because large companies have more complex operational activities than small companies so that it opens up more opportunities for earnings (Medyawati & Dayanti, 2016 : 150). Corporate Governance is a set of regulations that stipulate the relationship between management stakeholders, creditors, the government, employees and other internal and external stakeholders in relation to their rights and obligations, or in other words a system that directs and controls the company according to the Forum for Corporate Governance in Indonesian/FCGI (2001). (Behrghani et al., 2013 : 782) in his study found that the application of the concept of CG can weaken the relationship between firm size and leverage by performing earnings management. As for liquidity, the lower the LDR (Loan Deposit Ratio) value indicates the bank's income is low, so that the bank will be motivated to carry out earnings management by increasing profits, but the application of the concept of Corporate Governance to the company in order to create alignment of goals for all parties which will harm stakeholders (Septianto et al., 2021 : 91). (Umami, 2015 : 1) Institutional ownership is able to strengthen the relationship between company size and earnings management practices

Efficiency

Tighter banking competition encourages banks to operate more efficiently. Increasing efficiency becomes a strategic step, since it is a strategic move carried out by the bank to survive in all conditions. Berger and Mester (1997) described that from the micro perspective; it will be difficult for an inefficient bank to maintain the required number of customers, and it is less likely to be attractive to potential new customers, due to the decreasing customer confidence in the bank. On the other hand, from the macro perspective, an efficient banking industry may affect the cost of financial intermediation and the overall stability of the financial system. This is due to the strategic role of the banking industry as the intermediary and service producer when allocating financial resources, and can ultimately increase investment and economic growth (Abidin & Endri, 2009).

The concept of efficiency was first introduced by Farrell (1957) who proposed various concepts for efficiency, from simple cases such as the two factors of production to produce a single output, to more complex cases such as calculating the efficiency of enterprises with multiple inputs and multiple outputs. To sum up, there are two components of efficiency, consisting of technical efficiency and price or allocative efficiency. Technical efficiency measures a company's success by optimally set inputs to generate the maximum output. While allocative efficiency or price efficiency is a company's ability to use a certain proportion of its input, at a certain price, optimally. Kumbakhar and Lovell (2000) stated that technical efficiency is one of the components of overall economic efficiency. However, in order to achieve economic efficiency, a company should be technically efficient. The aim of measuring efficiency, according to Hadad, Santoso, Ilyas, and Mardanugraha (2003), is to draw an accurate frontier.

Intellectual Capital

The term intellectual capital is often used interchangeably with intangible assets as synonyms (Meritum, 2002; Lev, 2001; and Lev and Zambon, 2003). FASB (2001) states that

intangible assets are not only something that results from research and development but also human resources, customer relations, innovation and so on. Non-accounting researchers define intellectual capital as the difference between the book value and the market value of an entity (Edvinsson and Malone, 1997; Stewart, 1997; Sveiby, 1997; Mouritsen *et al.*, 2001). As for accounting researchers, the difference between the book value and the market value of the entity is goodwill which is also an intangible asset (Ohlson, 1995; Feltham dan Ohlson, 1996; Beaver, 1998; Holthausen dan Watts, 2001).

The intellectual capital component consists of human capital, structural capital and external capital (customers). This classification is generally recognized.

- a. Human Capital (Human Capital). Human capital is the most valuable strategic resource for the company. This component includes innovation ability, creativity, problem solving ability, expertise, experience, leadership, entrepreneurial and managerial skills, previous experience, teamwork capacity, flexibility, tolerance for ambiguity, motivation, learning capacity, loyalty, formal training, and employee education.. (Brooking, 1996; Meritum (2002). Human capital will increase if the company is able to use the knowledge possessed by its employees. (Brinker, 2000)
- b. Structural Capital or Organizational Capital (Organizational Capital). Structural Capital is the ability of an organization or company to fulfill the company's routine processes and structures that support employees' efforts to produce optimal intellectual performance and overall business performance, for example the company's operational systems, manufacturing processes, organizational culture, management philosophy and all forms of intellectual property owned. This structural capital company also refers to the knowledge that remains when the employee returns home (Pablos, 2004). Brooking (1996) view this structural capital as the technologies, methodologies and processes that support the company to perform its functions.
- c. Relational Capital (Relational Capital). Relational Capital is a harmonious relationship that the company has with its partners, namely reliable and quality suppliers, loyal customers, the government and the surrounding community. Relational capital includes company image, customer loyalty, customer satisfaction, interaction with suppliers, suppliers channels, licensing agreements, and franchising agreements. (Starvoic dan Marr, 2003).

Liquidity Risk

Van Horne and Wachowicz (2012: 205) stated that liquidity is the ratio used to measure the company's ability to meet its short-term obligations. Liquidity is also an important factor in the cost of the financial crisis (Sibilkov, 2009 : 1) If in the long term there is not sufficient liquidity of a company, this can lead to liquidation and further threaten the survival of the company this will also increase the cost of the financial crisis. In the capital structure, liquidity is also an important factor because if the company is faced with the threat of bankruptcy, in other words, the company has the opportunity to use more debt if it is assumed that the cash assets owned are sufficient. (Rao *et al.*, 2007). With the threat of bankruptcy, it is easier for companies to convert their liquid assets into cash needs.

Earnings management

Earnings management is an action taken by management intentionally by manipulating financial statements that are still in accordance with accounting principles Scott (1997), Davidson (1987), Schipper (1989). Scott (2009) further describes the motivation of earnings management, namely: (1) Bonus Plan (Bonus Schemes), Healey (1985) states that managers have inside information on the company's net income before carrying out earnings management. (2) Long-Term Debt Contracts (Debt Contracts), Managers always try to avoid breaching the agreement because it can cause large costs and will also limit the manager's freedom to take action in managing the company. Earnings management is used by managers to avoid violating the debt agreement. Sweeney (1994). (3) Meeting Investors' Profit Expectations and Maintaining

Reputation, managers have a strong drive to ensure that investors' profit expectations are met. One way to ensure this is to manage earnings increases through earnings management. Failure to meet investors' expectations will have a direct effect on the company's stock price and cost of capital as investors revise the decrease in the probability of future good performance. It also affects the manager's reputation. (4) Initial Public Offering, the possibility of managers of companies going public to manage earnings on earnings reported in the prospectus to get a higher price for the company's shares.

Corporate governance

The concept of Good Corporate Governance is a concept that is used to regulate and control the company to create added value for stakeholders or it can also be said that good corporate governance is applied to avoid problems that often occur between agents (management) and also principals (company owners) in running the company. Corporate Governance also assists in improving company performance through supervision or monitoring of management performance and ensuring management accountability to stakeholders based on the regulatory framework. The principles of good corporate governance as compiled by the Organization for Economic Cooperation and Development (OECD) include transparency, accountability, responsibility, independence and fairness.

Company size

Brighdam and Houston (2014) in (Tobing et al., 2019 : 104) defining company size is the size of the company as indicated by total assets, total sales, total profits, tax burden and others.

Capital Adequacy

Capital assessment is an assessment of the bank's capital adequacy to cover current risks and anticipate future risks. Capital Adequacy Ratio is one indicator of the health of bank capital, to measure the adequacy of capital owned by the bank to support assets that contain or generate risks, such as financing provided. The greater the Capital Adequacy Ratio, the greater the resilience of the bank concerned in dealing with the depreciation of the value of bank assets arising from problematic assets.

Efficiency, Earnings Management and Corporate Governance

Scott (2009: 403) defines earnings management as a choice for managers of accounting policies from various policies allowed in the standard, to achieve specific goals. Scott (2009: 402) views earnings management from two perspectives, namely the financial reporting perspective and the contracting perspective. From a financial reporting perspective, managers use earnings management for profit forecasting analysis, so that reputational damage and negative stock price reactions will be avoided due to failure to meet investors' expectations. From a contractual perspective, earnings management can be used to protect themselves and the company in anticipating unexpected events for the benefit of the parties involved in the contract.

Earnings management behavior is very risky to the running of the company. The management will be careful in making decisions to avoid decreasing public confidence in the companies they manage. One of the keys to the success of a company is to be able to design efficient business processes and be able to make decisions that add value to the company" (Isnugrahadi and Kusuma, 2009). Efficiency will be achieved if the value of the output produced is greater than the required resources. Demerjian et al. (2012)

H₁= Efficiency has a negative effect on earnings management

H₇= Corporate Governance strengthens the relationship between Efficiency and earnings management

Intellectual Capital on Earnings Management and Corporate Governance

The role and importance of physical capital in achieving sustainable profits is greatly reduced compared to intellectual capital (Intellectual Capital/IC) (Asadollahi et al, 2013). On the one hand, because of the importance of accounting profit predictions as a factor influencing the economic decisions of users and on the other hand, because of the importance of intellectual capital, as an important part of the company's overall capital, in achieving sustainable and long-term profits and the need to identify the impact of intellectual capital on prediction of the company's future earnings, the main problem of this study is to examine the role and importance of the intellectual capital component in determining management's ability to predict the company's future stock returns. Galdipour et al, (2014) in his research found that Intellectual Capital/IC has a significant positive correlation with earnings management, where the proxy used for earnings management is accrual earnings management. Mojtahedi (2013) in his research found that Intellectual Capital/IC has a positive correlation with earnings quality which is proxied by accrual earnings management. Darabi et al (2012) in his research found that Intellectual Capital/IC has a positive correlation with earnings quality which is proxied by accrual earnings management (discretionary accruals). Based on the arguments above, the research hypothesis is:

H₂ = Intellectual Capital has a negative effect on earnings management

H₈ = Corporate Governance strengthens Intellectual Capital's relationship to earnings management

Liquidity Risk on Earnings Management and Corporate Governance

The ratio used to measure liquidity in this study is the Loan to Deposit Ratio which is a comparison between the amount of credit provided and third party funds. The third party funds obtained are capital for the bank, whether the bank is able to channel the funds collected, the higher the ratio indicates the lower liquidity capacity of the bank concerned. (Kurniasih, 2016 : 4). The low liquidity of the bank indicates that the bank's income is low, this motivates the bank to carry out earnings management which aims to gain public attention and encourage the public to collect their funds in the bank, this is in accordance with the Agency Theory. (Gombola et al., 2016 : 22) conducted a study entitled The effect of leverage and liquidity on earnings and capital management: Evidence from U.S. commercial banks. Their research period was between 1999 and 2013. The results showed that after the 2008 financial crisis, leverage and liquidity ratios had a significant positive effect on bank management profits. These results are supported by research (Riahi et al., 2013 : 53) who conducted a study on the Tunisian foam effect which stated that there is a positive and significant relationship between earnings management achieved by Tunisian companies and market liquidity. The Tehran stock exchange researched by (Abbaspour, 2017 : 105) stated that Liquidity has a significant positive effect on Earnings Management. Research on the Indonesia Stock Exchange has also been carried out by (Mulyana & Saputra, 2017 : 12) in manufacturing companies that generate liquidity affect earnings management.

Meanwhile (Arini, 2017 : 12) found different results that liquidity has no effect on real earnings management, a study on manufacturing companies on the Indonesia Stock Exchange due to differences in measurement. The measurements used in real earnings management only use measurements through operating cash flows so that they do not show the results of real earnings management as a whole.

H₃ = Liquidity risk has a positive effect on earnings management

H₉ = Corporate Governance strengthens the relationship between liquidity risk and earnings management

Corporate Governance on earnings management

Good Corporate Governance is a guideline in good governance, which can help achieve company goals. In the implementation of the implementation of good corporate governance, it is stated in a work mechanism, one of which is the company's internal mechanism. The theory of connecting Good Corporate Governance to earnings management according to Sri Sulistyanto

(2008:154) are as follows: “One of the efforts to realize good corporate governance is an effort to eliminate earnings management in the management of the business world. There are several factors that are thought to be why this managerial engineering effort seems to have become entrenched in the management of a company, first, accounting rules and standards, transparency, and auditing are still weak. Second, the supervision and control system of a company is not yet optimal. Third, the moral hazard of company managers who tend to prioritize and prioritize personal and group interests and welfare. The corporate governance structure, which consists of shareholders, commissioners, directors, audit committees, company secretaries, managers and employees, external auditors, internal auditors, and other stakeholders (government, creditors, etc.) with the basic principles of corporate governance which include: (1) Transparency and disclosure, (2) Integrity, (3) Accountability, (4) Fairness, and (5) Responsibility/responsibility, it should be able to reduce earnings management actions or practices ,Murwaningsari (2008). according to Sulistyanto (2008:154) One of the main keys to the success of Good Corporate Governance is to build a better monitoring and control system. The realization of a balance of supervision and control in the management of a company will be an obstacle for managers to make policies according to personal interests and needs and encourage the creation of justice, transparency, accountability, and responsibility. Sofia, I. P., & Murwaningsari, E. (2019).

H₄ = Corporate governance has a negative effect on earnings management

Firm Size terhadap manajemen laba

Large companies tend to require more funds than small companies. Investors will invest their funds if they get a signal related to company information, the signal can be in the form of dividend payments, earnings announcements and so on. Signaling theory also emphasizes the importance of information issued by the company on investment decisions by parties outside the company. Therefore, large companies will be more careful in conveying financial information because large companies involve more investors. The bigger the company, the company must be able to meet the expectations of investors or other shareholders (Astuti et al., 2017 : 503). Companies that have larger assets are also likely to carry out more earnings management practices because large companies face greater pressure from investors and financial analysis to show positive earnings or profit increases. (Ali et al., 2015 : 55). Due to this pressure, the greater the information asymmetry that aims to meet financial expectations (Nalarreason et al., 2019 : 22). Large companies are also more likely to carry out earnings management, because large companies have more complex operational activities than small companies so that it opens up more opportunities for earnings management (Medyawati & Dayanti, 2016 : 150). The same thing was also found by (Prasavita Amertha et al., 2014 : 266) and (Behrghani et al., 2013 : 782) The greater the income of a company, the more interest in earnings management practices in the company.

The size of a company cannot always be measured by total assets, thus allowing other components that can be used as parameters for company size, for example stock prices so that company size does not always affect earnings management (Supatminingsih & Wicaksono, 2020 : 123). Finding (Veronica, 2015 : 166) Contrary to previous research, he stated that the larger the size of the company, earnings management decreased because large companies had complex and more competent internal control systems than small companies. Also supported by the findings (Astuti et al., 2017 : 510) The greater the assets in the company, the more capital invested and the more sales, so the greater the turnover of money that occurs. Large companies have more assets and allow many assets that are not managed properly, so that earnings management is caused by errors in disclosing total assets.

H₅ Firm Size has a positive effect on earnings management

Adequacy of Capital on earnings management

Referring to the Agency Theory that there is a difference of interest between the principal (shareholders) and the agent (management) and triggers opportunities for information asymmetry. The existence of information asymmetry has a major impact on the financial statements, the company's management will prevent liquidation by increasing the company's profitability. Increased profitability will tend to make the company look like it has excess cash then the cash will be paid to shareholders in the form of dividends, this makes shareholders believe that the company's finances are in good condition.

In line with agency theory, companies that have a CAR ratio that is too low tend to carry out earnings management because the company is threatened with bankruptcy so that it is unable to meet debt payments on time. (Nalarreason et al., 2019 : 20). Finding (Octaviani & Kartikaningdyah, 2019 : 62) the higher the use of fixed costs in an effort to increase profitability affects the company's management profit. (Mustamin & Usman, 2019 : 90) (Octaviani & Kartikaningdyah, 2019 : 61) (Partayadnya & Suardikha, 2018 : 48) stated similar results, namely CAR has a positive effect on Earnings Management. (Septianto et al., 2021) banks that are unable to carry out the regulations that have been determined by bank Indonesia, are strongly suspected of implementing earnings management in order to influence CAR, this is done in order to meet the minimum provisions of bank Indonesia.

H₆ Capital adequacy has a positive effect on earnings management

2. IMPLEMENTATION METHOD

The data used in this study is secondary data contained in the Indonesian Capital Market Directory and the company's annual report. The sample selection used purposive sampling method, meaning that the sample was deliberately selected based on certain criteria in order to represent the population. The criteria are as follows:

- a. Banking Companies listed on the Indonesia Stock Exchange during the observation period, namely in 2015-2020
- b. The company publishes audited financial reports consecutively and has the required data for 6 years, namely in 2015-2020
- c. The company publishes the Corporate Governance report from 2015-2020

Based on the sampling criteria above that meet the criteria above as many as 33 companies from 45 Banking Companies listed on the Indonesia Stock Exchange (IDX) for 6 years starting from 2015 - 2020

Table 3 Sample Selection Criteria

No	Information	Number of Companies
1	Banking Companies listed on the Indonesia Stock Exchange during the observation period, namely in 2015-2020	45
2	The company publishes audited financial reports consecutively and has the required data for 5 years, namely in 2015-2020	33
3	The company publishes Corporate Governance reports for 6 years, namely in 2015-2020	33
	Banking companies that are sampled based on the criteria	33

Table 4 Measurement of Research Variables

Concept	Variable	Measurement	Source
Dependent	Earnings Management	$NDA_{it} = \beta_0 + \beta_1 CO_{it} + \beta_2 LOAN_{it} + \beta_3 NPA_{it} + \beta_4 \Delta NPA_{it+1} + \epsilon_{it}$	Beaver & Engel, 1996
Independent	Efficiency	$\frac{\text{Operating Expenses}}{\text{Operating Income}}$	POJK number 18/POJK.03/2016
	Intellectual Capital	VA=OUT-IN (1) VACA =VA/CA (2) VAHU =VA/HC (3) STVA =SC/VA (4) VAICTM = VACA+VAHU + STVA (5)	Pulic (1998; 1999; 2000).
	Liquidity Risk	$\frac{\text{Total Credit}}{\text{Total Third Party Funds} + \text{Equity}}$	SEBI Number 3/30/DPN/2001
Moderating	Corporate Governance	Corporate Governance Indeks Total Score = The sum of the scores of each point	Wahidahwati, 2010, Pujiati, 2019
Control	Company Size	$\ln(\text{Total Asset})$	Klapper & Love, 2004 : 713
	Capital Adequacy	$= \frac{\text{Inti Capital} + \text{Complementary}}{\text{ATMR}}$	/29/DPBs 7 Desember 2007

CO_{it} : loan charge offs, $LOAN_{it}$: loans outstanding, NPA_{it} : non performing assets, ΔNPA_{it+1} : difference in non-performing assets t+1 with non-performing assets t NDA_{it} : non-managed accruals, A_{it} is accrual under management, TA_{it} is total accruals, and NDA_{it} is non-managed accruals. VA : Value Added = Output – Input (in rupiah), CA/CE : Capital Employed)= Available funds (equity, net income), HC : Human Capital = Total expenses for salaries and wages or all expenses for employees (total staff costs), SC : Structural Capital. ATMR : Risk Weighted Assets.

3. RESULTS AND DISCUSSION

In conducting the test, the researcher used the classical assumption test regression model, multiple linear regression analysis and hypothesis testing. The results of the tests that have been carried out are: Chow test is used to choose between the common effect model and the fixed effect model. To perform the Chow test, use the test criteria if (p-value > 0.05) then the common effect model is selected, but if (p-value <0.05) then the fixed effect model and further Hausman test. The results of the chow test test are shown as follows:

Table 5 Chow Test Results

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	15.265070	(32,123)	0.0000

Cross-section Chi-square 264.610757 32 0.0000

The results in the table above show that the probability of the chi-square of 0.0000 is lower than 0.05. So according to the decision criteria, this model uses the fixed effect model. Because in the selected Chow test using a fixed effect model, it is necessary to carry out further testing with the Hausman test to determine which fixed effect or random effect model is used.

Table 5. Hausman Test Results

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	10.803586	9	0.2894

To determine the results of the Hausman test is to assess the probability of chi-square, if <0.05 then the model used is a fixed effect, but if the probability > 0.05 then the model used is a random effect. The results of table 5 show the probability value of chi-square of 0.02894, meaning that the Hausman test results chose to use the random effect model. Panel data regression has been determined using the random effects model, then the formula for the random effects model is as follows:

Table 6 random effect results,

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.286108	5.312641	0.053854	0.9571*
EF	-0.022948	0.029877	-0.768100	0.4436*
IC	-0.439217	0.253989	-1.729272	0.0858*
RL	0.014056	0.039790	0.353247	0.7244*
FS	0.029561	0.077401	0.381918	0.7030*
KM	0.015935	0.029950	0.532042	0.5955*
CG	-2.261839	8.044196	-0.281177	0.7790*
EF_CG	0.046172	0.051782	0.891666	0.3740*
IC_CG	0.891237	0.494805	1.801188	0.0736*
RL_CG	-0.034230	0.064438	-0.531202	0.5960*

Note: EF = Efficiency, IC = Intellectual Capital, RL = Liquidity Risk, CG = Corporate Governance, ML = Earnings Management, FS = Firm Size, GR = Growth, KM = Capital Adequacy Significance Level : * 10%

$$ML_i = \beta_0 - 0.439217_i - 0.439217_i + 0.014056_i + 0.029561_i + 0.015935_i - 2.261839_i + 0.046172_i + 0.891237_i - 0.034230_i + e_i$$

Note: EF = Efficiency, IC = Intellectual Capital, RL = Liquidity Risk, CG = Corporate Governance, ML = Earnings Management, FS = Firm Size, GR = Growth, KM = Capital Adequacy

The panel data regression equation can be explained as follows: The constant of 0.286108 means that if the independent variable is fixed, the dependent variable (earnings management) is 0.286108. The regression coefficient of the efficiency variable is -0.022948, meaning that if the other independent variables have a fixed value and the efficiency increases by 1%, earnings management will decrease by -0.022948. A negative coefficient means that there is a negative relationship between efficiency and earnings management. The regression coefficient for the intellectual capital variable is -0.439217, meaning that if the other independent variables have a fixed value and the intellectual capital has increased by 1%, earnings management will decrease by -0.439217. A negative coefficient means that there is a negative relationship between intellectual capital and earnings management.

The regression coefficient for the liquidity risk variable is 0.014056, meaning that if the other independent variables have a fixed value and the liquidity risk increases by 1%, earnings management will increase by 0.002492. The positive coefficient means that there is a positive relationship between liquidity risk and earnings management. The regression coefficient for the moderating variable 2 is 0.046172, meaning that if the other variables have a fixed value and corporate governance as a moderating variable for efficiency on earnings management has increased by 1%, earnings management will increase by 0.046172. the coefficient is positive, meaning that corporate governance strengthens the relationship between efficiency and earnings management. The regression coefficient for the moderating variable 2 is 0.891237, meaning that if the other variables have a fixed value and corporate governance as a moderating variable, the relationship between intellectual capital and earnings management has increased by 1%, earnings management will increase by 1%. 0.891237. the coefficient is positive, meaning that corporate governance strengthens the relationship between intellectual capital and earnings management.

The regression coefficient for the moderating variable 3 is -0.034230, meaning that if the other variables have a fixed value and corporate governance as a moderating variable, the relationship between liquidity risk and earnings management increases by 1%, earnings management will decrease by -0.034230. The coefficient is negative, meaning that corporate governance weakens the relationship between liquidity risk and earnings management. The regression coefficient for the firm size variable is 0.029561, meaning that if the other independent variables have a fixed value and the firm size has increased by 1%, earnings management will increase by 0.029561. The positive coefficient means that there is a positive relationship between firm size and earnings management. 0.015935. The regression coefficient of the capital adequacy variable is 0.015935, meaning that if the other independent variables have a fixed value and capital adequacy increases by 1%, earnings management will increase by 0.015935. The coefficient is positive, meaning that there is a positive relationship between capital adequacy and earnings management.

4. CONCLUSION

Based on the results of data analysis and discussion described in the previous chapter, this study found that the higher the level of efficiency, intellectual capital and corporate governance, the earnings management in banking will decrease. Earnings management in banking will increase, influenced by liquidity risk factors, firm size. and banking capital adequacy. Corporate governance strengthens the relationship between efficiency and earnings management in banking, as well as corporate governance can strengthen the relationship between intellectual capital and earnings management in banking. However, the implementation of corporate governance weakens the relationship between liquidity and earnings management. This study still has limitations and shortcomings where this study uses earnings management proxies from the size of the company using total assets. It is hoped for further research to add variables such as corporate social

responsibility index, green intellectual capital and change the measurement of company size using a log size proxy for stock market value or with the number of employees, measurement.

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