The Influence of CAMEL and CSR on Financial Sustainability in Banking Companies Listed on the Indonesia Stock Exchange for the Period 2017-2022

Martika Agelita [1], Sulaeman Rahman[2], Meinanda Kurniawan [3]

Abstract:

This study aims to analyze the effect of CAMEL and Corporate Social Responsibility (CSR) on financial sustainability in banking companies listed on the Indonesia Stock Exchange for the period 2017-2022. The research method used is quantitative analysis using secondary data obtained from annual financial reports and sustainability reports of banking companies. CAMEL is a method of assessing bank performance consisting of several important indicators, namely Capital Adequacy Ratio (CAR), Productive Asset Quality (KAP), Net Profit Margin (NPM), Operational Costs, Operational Income (BOPO), Loan to Deposit Ratio (LDR. These indicators are used to measure the financial health and operational efficiency of banks that have an impact on long-term financial sustainability. On the other hand, CSR is a form of corporate social responsibility that is considered to be able to provide a positive impact on the bank's reputation and support the bank's financial sustainability by strengthening the relationship between the bank and stakeholders. Using a quantitative approach, this study processes secondary data that includes information from annual financial reports and sustainability reports to assess the impact of CSR and CAMEL on financial sustainability . The findings of this study are expected to provide important implications for bank management in formulating financial strategies and improving bank social responsibility programs to ensure sustainable growth. The results of this study are also expected to be a reference for banks in strengthening financial performance and creating long-term value fields through the implementation of better CSR practices. In addition, this study provides important implications for stakeholders in understanding the strategic role of SCR and financial performance based on CAMEL in creating financial sustainability of banking companies in Indonesia.

Keywords: *CAMEL, CSR, Financial Sustainability, Banking, Indonesian Stock Exchange*

1. Introduction

Banking institutions play an important role in the Indonesian econnomy, because these institutions act as financial intermediary institutions that collect public funds and channel them back in the form of loans. Banking institutions are the main economic system in society that operates in the service sector and is trusted by all stakeholders. A healthy banking company is a company that is able to carry out its duties well, with key factors in building stakeholder trust being financial sustainability and stable

[1] *Universitas Padjajaran, martikaagelita014@gmail.com.*
[2] *Universitas Padjajaran*
[3] *Universitas Padjajaran*

development. A bank is a business institution that has financial assets that aim to support the community and make a profit. Good banking performance will have an impact on increasing income from third parties and the company's stock value. Factors that determine banking performance include capital adequacy, asset quality, management, efficiency, profit, and liquidity. The growth rate of banking companies varies depending on market conditions, regulations, competencies, and company strategies. Banking companies must continue to adapt to changing market trends and customer needs in order to achieve sustainable growth. The following is the number of banking companies from 2017 to 2022.
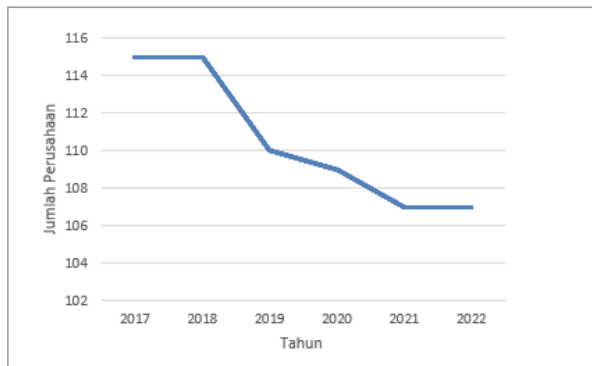

Figure 1. Number of Banking Companies in Indonesia (2017-2022)
Source: ojk.co.id

The number of banking companies in Indonesia has declined since 2017, causing significant financial difficulties that can lead to bankruptcy or closure. To improve the situation, banks must maintain public trust, function as intermediaries, facilitate payment transactions, and be used by the government to implement policies. Banks must make regular reports to assess their health and implement the latest strategies for sustainability. Financial sustainability is defined as a stable long-term financial condition supported by the entity's own financial resources, including effective management of income, costs, and reserves, taking into account social and environmental impacts in financial operations. The challenges faced by banks include the weakening of the rupiah exchange rate against the USD, limited community activities, declining demand and supply, and declining financing distribution. These factors have led to a decline in banking sector income, liquidity, production, and demand for certain services and goods, resulting in a non-performing financing ratio.

Liquidity as proxied by financial performance, can enhance financial sustainability. However, the financial performance ratio, measured by the Operating Expenses to Operating Income (BOPO) ratio, has a significantly negative effect on the financial sustainability ratio. Companies need to manage financial stability to ensure economic security in the face of increasingly liberal international economic structures. Banks are expected to survive and grow while maintaining financial sustainability above 100%. A quantitative method for measuring the social impact of CSR programs is Social Return on Investment (SROI). This measurement helps companies understand how to manage the social, environmental, and economic value generated, assess the

positive impacts of CSR programs, particularly for communities, and evaluate the effectiveness of social investments made.

The Indonesian financial crisis from 2017-2022 has led to a decline in corporate performance and a slowdown in economic turnover. The banking sector, as a crucial component of the economy, is expected to improve its performance and maintain harmonious relationships with stakeholders. The Financial Sustainability Ratio is used to measure the sustainability of banking financial growth, which experienced fluctuating changes from 2017-2022. The CAMEL (Capital Adequacy, Asset Quality, Management, Earnings, and Liquidity) financial ratios are used to evaluate and determine the financial health of banks, providing essential information for long-term investment considerations. However, several CAMEL components underwent significant changes during this period. The Capital Sustainability Ratio steadily increased from 2017 to 2022, followed by an improvement in the Quality of Productive Assets. The Net Profit Margin of banking companies declined in 2020 without a significant increase in subsequent years. However, the BOPO of banking companies increased and remained stable, while the Loan to Deposit Ratio to DPK decreased and rose again in 2021.

Corporate Social Responsibility (CSR) becomes important as it reveals risk management strategies to enhance reputation and maintain financial stability. The average CSR of companies in the banking sector increased from 2017-2022, indicating that CSR plays a crucial role in maintaining the financial sustainability of companies. Understanding how CAMEL and CSR affect financial sustainability is vital, as both are independent variables directly related to Financial Sustainability as the dependent variable. This study aims to provide practical benefits for banking company managers in designing strategies to improve financial performance using CAMEL ratio assessments, as well as serve as a reference for investors in assessing financial health and company sustainability.

2. Theoretical Background

Banking: Banking includes all aspects related to banks based on the regulations written in Law Number 10 of 1998 concerning the banking sector, financial institutions and activities carried out in carrying out banking activities. The main task of the bank is to collect funds from the community and give them back to the community with the aim of participating in national financial development that can improve the quality of society. With that, banking also implements monetary policies and the success of stability in the financial system with this, transparent, healthy and responsible banking is needed. A bank is an intermediary institution that is established based on authority and has the task of receiving, lending and printing promissory notes. The term "bank" is based on Italian which is called "banca" and has the meaning of a place where money can be exchanged. Kasmir (2014) stated that a bank is a financial entity that is routinely involved in various economic activities, an entity whose main task is to collect and redistribute funds that are collected and stated in Law Number 10 of 1998 concerning banks contains companies that focus on receiving

funds in the form of deposits and then giving them back to the community through various banking products, with the aim of improving the welfare of the community.

Stakeholder Theory: Based on stakeholder theory, a company is not only responsible for economic aspects such as financial reporting but must also provide tangible benefits to stakeholders from their investments in terms of time, money, and other resources (Freeman R.E, 1984; Tanjung, 2021). Stakeholder theory emphasizes that ethical values, social responsibility, and benefits to various involved parties are inseparable from business activities. Bank managers must articulate the bank's objectives and how to build relationships with stakeholders (Freeman, 2004). Stakeholder theory provides a foundation for companies to expand their focus beyond economic profits to the benefits delivered to stakeholders. This can be realized through the disclosure of sustainability reports, which specifically manage and integrate relationships with stakeholders, including employees, customers, and the surrounding community (Rindiyawati & Arifin, 2019; Harahap, 2019). Thus, fostering a harmonious relationship between the company and its environment is expected to ensure the sustainability of the company's operations (Ganiem & Kurnia, 2019; Wati, 2019).

Financial Sustainability: Financial sustainability is the ability of financial programs to maintain continuity and achieve the company's main objectives in implementing success in sustainable development. This concept includes comprehensive efforts from the financial services sector to support sustainable development by meeting economic, social and environmental needs. The right social investment can help financial services to strengthen their financial position and support long-term sustainability (Financial Services Authority).

Financial Ratio Analysis: Ratio analysis in finance is an activity of making comparisons related to the nominal in the annual report. This comparison is carried out on one aspect with another aspect and between factors in financial data (Kasmir, 2013). Economic ratio analysis is an analysis to determine the level of relationships between related aspects in the balance sheet in financial data and profit and loss data or even the relationship between the two reports (Munawir, 2010).

CAMEL Assesment Factors: Globally the banking health assessment can be summarized in the following table:

Table 1. CAMEL Assessment

Aspect	Ratio	Weight
CAPITAL	CAR	25%
ASSET	HOOD	30%
MANAGEMENT	NPM	25%
PROFITABILITY	BOPO	10%
LIQUIDITY	LDR	10%
Total number		**100%**

Source: BI Board of Directors Decree No. 30/12/KEP/DIR dated April 30, 1997 concerning Procedures for Assessing the Health Level of Rural Credit Banks.

Corporate Social Responsibility (CSR): CSR (Corporate Social Responsibility) is an obligation to be accountable for industrial activities by contributing to sustainable economic development and improving employee safety. According to Hamdani (2016:164), a company is considered socially responsible if its vision focuses not only on making a profit but also on improving the welfare of society and the environment. The term Corporate Social Responsibility (CSR) was introduced in 1994 in a note titled 'Cannibals with Forks: The Triple Bottom Line of Twentieth Century Business' by John Elkington, which introduced the concepts of economic prosperity, environmental quality, and social justice, reflecting the development of the triple bottom line theory (Rudyanto & Siregar, 2018). This idea suggests that industries aiming to ensure the sustainability of their business must operate not solely for profit but also engage in enhancing the safety of employees and the community, and actively participate in preserving the environment.

The Influence of Capital on Financial Sustainability: Capital refers to the amount of funds available for use in the company's operations. Capital has a significant influence in maintaining long-term financial sustainability. If companies have sufficient capital, they can meet their financial obligations and have good resilience to economic changes or unexpected events. One commonly used measure is the equity ratio , which describes how much capital a company uses compared to its debt. Capital adequacy is used to evaluate how strong bank capital is in facing risks and obligations that arise. Analysis of the relationship between capital structure and financial sustainability in the context of manufacturing companies. Thus, capital has a crucial role in maintaining the financial sustainability of an entity. Adequate capital allows an entity to meet financial obligations, support growth, face challenges, attract investors, and comply with regulatory requirements (Javed et al., 2014) .

The Influence of Assets on Assets Sustainability: Assets refer to all resources owned by an entity, both in financial forms (such as cash, investments, and receivables) and non-financial forms (such as property, equipment, and inventory) (Yordanova-Dinova, 2019). Well-managed assets can enhance financial sustainability by providing stable income and increasing value. Efficient monitoring and management of assets can help companies avoid unnecessary losses and ensure the availability of adequate resources to meet social obligations. Assets can also be used as collateral to obtain financing. If an entity possesses valuable assets, they can use these assets as collateral to secure loans or credit. This provides greater financial flexibility and enables them to maintain high liquidity (Munandar & Aravik, 2022)..

The Influence of Management on Financial Sustainability: Effective and efficient management plays a key role in maintaining financial sustainability. Good management decisions, including strategic planning, risk management, cost control, and proper resource allocation, can contribute to strong long-term financial performance. Effective management also involves making decisions based on accurate and reliable financial information. Strategic management in financial sustainability is a dynamic set of interconnected management processes. Management has a significant influence on financial sustainability. Effective management can aid

in achieving and maintaining financial balance in both the short and long term (Piletska et al., 2020).

The Influence of Earning on Financial Sustainability: Earnings have a significant influence on the financial sustainability of an entity, be it a company, a non-profit organization, or even an individual. Sufficient and stable income is one of the key factors in maintaining long-term financial sustainability. Earning management can have an operational impact for a long period (Ahmed et al., 2022). Income measured using financial performance has an influence on financial sustainability (Wahjuni Latifah et al., 2019). Operating Costs Operating Income (BOPO) has a significant influence on profitability during the 2016-2020 period. The decrease in the BOPO ratio is directly proportional to the increase in Return on Asset (ROA) profitability. In other words, the lower the BOPO, the greater the potential profit. (Tamin et al., 2022).

The Influence of Liquidity on Financial Sustainability: Liquidity is the ability of an entity, such as a company or organization, to meet its financial obligations as they fall due properly and without difficulty. The availability of adequate liquidity is very important in influencing financial sustainability. Companies that fail to manage liquidity will experience financial problems and even bankruptcy, therefore the finance department will try to manage liquidity well (Akindehinde, 2022). Adequate liquidity affects an entity's ability to repay its debts on time. If an entity does not have sufficient liquidity, they may have difficulty paying their maturing debts, which can lead to greater financial problems, such as penalties or decreased credibility in the financial markets (Kusekwa & Musa Masanja, 2022).

The Influence of CSR on Financial Sustainability: To pay attention to financial sustainability , the banking sector must also implement corporate social responsibility (CSR) . CSR reports do not always reflect a sincere effort to account for both the negative and positive aspects of all material impacts. CSR is often used as a tool to build reputation and impressions to improve the company's image (Bonilla-Priego et al., 2014). This follows the regulations stipulated in Law No. 40 of 2007 concerning Limited Liability Companies, which requires companies to have social and environmental responsibility. For this, banking not only carries out economic activities but must also prioritize the surrounding environment. The research conducted resulted in Corporate Social Responsibility having a positive impact on financial sustainability (Kamal et al., 2021).

The Influence of Capital, Asset, Management, Earning, Liquidity and Corporate Social Responsibility (CSR) on Financial Sustainability: The impact of CAMEL (Capital, Asset, Management, Earning, Liquidity) and Corporate Social Responsibility (CSR) on Financial Sustainability is a key factor for the financial stability of a company. Adequate capital provides the company with the ability to face long-term risks and challenges. Sufficient capital allows the company to invest in sustainable initiatives and better handle market fluctuations. When capital is managed wisely and used to support socially and environmentally responsible operational practices, it can enhance financial sustainability (Melinda, 2021). Good liquidity gives the company financial flexibility in dealing with unexpected situations. Companies

will incur debt to raise funds that will be used to ensure the smooth flow of economic activities. Adequate liquidity allows for the fulfillment of financial obligations in the short term and ensures smooth operations. By implementing CSR practices, companies can mitigate social and environmental risks that can affect liquidity, strengthen their reputation, and improve stakeholder relations, ultimately supporting financial sustainability (Nurvita & Dayanti, 2021).

CSR includes the company's commitment to operate responsibly towards the environment and society, creating better relationships with customers, and reducing social and environmental risks. CSR can also drive operational efficiency and innovation, bringing long-term financial benefits. The Global Reporting Initiative (GRI) serves as a basis for calculating indicators (Kurniawan et al., 2013). Including corporate social responsibility (CSR) in financial reporting every period can enhance the company's image as an important factor for investors in choosing investment locations (Sulhan & Halimah, 2015). The more optimal the management of a company, the more optimal the CSR contribution of the company to economic sustainability (Roziq & Nisar Danurwenda, 2012). Companies that demonstrate social responsibility will achieve better financial results, particularly in improving profitability (Akhtar et al., 2021). CSR is positively related to the stability and profitability of banks (Shukla, 2022). Sustainability reports are also used to evaluate a company's performance concerning the environment (Cahya & Riwoe 2018). This aims to improve social and environmental performance and manage relationships with stakeholders (Bonilla-Priego et al., 2014). Strong CSR implementation can provide long-term benefits by reducing social and environmental risks, improving operational efficiency, and creating new business opportunities.

3. Methodology

This study uses a quantitative descriptive approach to determine the impact of CAMEL and CSR on financial sustainability in banking companies listed on the Indonesia Stock Exchange (IDX). The population is the entire object being studied, while the sample is a small part of the entire object. The population includes all things that can be used as research objects, making it easier for researchers to process data. The sample in this study is part of the existing population, namely 45 banking stocks listed on the IDX in 2017-2022. Purposive Sampling is used to select samples that meet certain criteria, such as banking companies listed on the IDX in the 2017-2022 period, companies that provide annual report information, and companies that provide financial reports in Indonesian currency (Rupiah).

Data collection techniques include observation, recording, and other methods, such as literature studies and online research. Literature studies are obtained through various sources, while online research examines the extent to which components related to online testing are available. This study uses publication data through the official BEI website, www.idx.co.id, and secondary data. Data analysis is an important stage in research, because data analysis is the process of changing data obtained by researchers into results that are in accordance with scientific principles. According to Siyoto & Sodik (2015), data analysis is a series of activities carried out to study, categorize, organize, interpret, and verify data to ensure that certain phenomena have clear values.

Based on this, this study uses a quantitative descriptive approach to investigate the impact of CAMEL and CSR on financial sustainability in banking companies listed on the IDX. By selecting samples that meet certain criteria, researchers can better understand and overcome the challenges faced by the banking sector.

4. Empirical Findings/Result

Chow Test

Table 2. Chow Test Result (Probability Cross Section F)

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.813635	(44,219)	0.0000
Cross-section Chi-square	254.840180	44	0.0000

Source: Data Processing Results with Eviews 10, 2024

Chow test , the decision making is based on if the value of the *Cross-section Chi-square probability* <0.05 then *the fixed effect is selected* and vice versa if the value of *the Cross-section Chi-square probability >0.05 then the common effect* is selected. Based on the table above, the value of *the cross-section probability F* in this test, namely 0.0000 < 0.05, it can be interpreted that the best model to use in this study is *the fixed effect*.

Hausman Test

Table 3. Hausman Results (Cross-Section Probability

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	24.291142	6	0.0005

Source: Data Processing Results with Eviews 10, 2024

In the Hausman test, the basis for decision making is if the random cross-section probability value is <0.05 then the fixed effect is chosen and vice versa if the random cross-section probability value is >0.05 then the random effect is chosen. Based on the table above, the random cross-section probability value in this test is 0.0005 >0.05, it can be interpreted that the best model that can be used in this study is the fixed effect.

Lagrange Multiplier Test

Table 4. Lagrange Multiplier Test Result

Lagrange multiplier (LM) test for panel data
Date: 07/24/24   Time: 23:07
Sample: 2017 2022
Total panel observations: 270
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	147.6673	41.50635	189.1737
	(0.0000)	(0.0000)	(0.0000)
Honda	12.15184	6.442542	13.14822
	(0.0000)	(0.0000)	(0.0000)
King-Wu	12.15184	6.442542	9.986763
	(0.0000)	(0.0000)	(0.0000)
SLM	13.07831	8.142110	--
	(0.0000)	(0.0000)	--
GHM	--	--	189.1737
	--	--	(0.0000)

Source: Data Processing Results with Eviews 10, 2024

In the Lagrange Multiplier test, the basis for decision making is if the prob. value <0.05 then the random effect is selected and vice versa if the prob. value >0.05 then the common effect is selected. The test criteria for the p-value of the cross-section–Breush Pagan of 147.6673 is greater than 0.05, so it can be concluded that the data fits the common effect model (CEM).

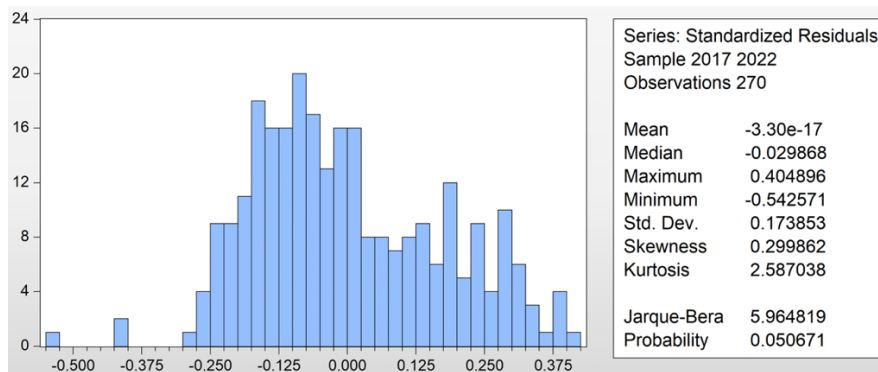**Traditional assumption test**
Test of normalcy

Figure 2. Results of the Normalcy Test
Source: Data Processing Results with Eviews 10, 2024

Based on the graph in the image above, the probability value of the data in this study is 0.050671 > 0.05, which means that the data is normally distributed.

Test of Multicollinearity

Table 5. Multicollinearity Test Result

Variance Inflation Factors
Date: 07/24/24   Time: 14:37
Sample: 2017 2022
Included observations: 270

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.007311	63.12289	NA
Capital	0.001463	6.062720	1.172893
Asset	0.008397	42.40593	1.373379
Management	0.002012	10.69214	1.412398
Earning	0.001667	6.260077	1.263805
Liquidity	0.002120	8.883279	1.107687
CSR	0.091502	33.52380	1.188919
KBMI1	0.001568	1.805213	1.564518
KBMI2	0.000819	2.828778	1.697267
KBMI3	0.001024	1.964623	1.528040

Source: Data Processing Results with Eviews 10, 2024

The table above shows the VIF results. The VIF value of the Capital, Assets, Management, Earnings and Liquidity and Corporate Social Responsibility variables, namely the Centered VIF value, is not less than 0.10 and not more than 10, this indicates that this study does not experience problems related to multicollinearity.

Test of Heteroscedasticity

Table 6. Heteroscedasticity Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.025303	0.043986	-0.575257	0.5656
Capital	0.028669	0.020604	1.391430	0.1653
Asset	0.080533	0.048213	1.670373	0.0960
Management	0.008177	0.024199	0.337901	0.7357
Earning	0.045133	0.021075	2.141545	0.0331
Liquidity	0.004556	0.024577	0.185357	0.8531
CSR	0.268262	0.156885	1.709923	0.0885

Source: Data Processing Results with Eviews 10, 2024

Table 7. Interpretation of Heteroscedasticity Test

Variables	Prob.	Decision
Capital	0.1653	There is no heteroscedasticity
Asset	0.0960	There is no heteroscedasticity
Management	0.7357	There is no heteroscedasticity
Earning	0.0331	Heteroscedasticity occurs
Liquidity	0.8531	There is no heteroscedasticity
Corporate Social Responsibility	0.0885	There is no heteroscedasticity

Source: Data Processing Results with Eviews 10, 2024

Based on the table above, it is known that the variables Capital, Assets, Management, and Liquidity and Corporate Social Responsibility do not show symptoms of heteroscedasticity. Earnings show symptoms of heteroscedasticity. This is evidenced by the table above which shows the value of the Capital, Assets, Management, and Liquidity and Corporate Social Responsibility prob is greater than 0.05, so H0 is not rejected.

Durbin-Watson Result
Table 8. Durbin-Watson Result

R-squared	0.260386	Mean dependent var	0.334561
Adjusted R-squared	0.243512	S.D. dependent var	0.203473
S.E. of regression	0.176973	Akaike info criterion	-0.600050
Sum squared resid	8.237060	Schwarz criterion	-0.506757
Log likelihood	88.00669	Hannan-Quinn criter.	-0.562587
F-statistic	15.43180	Durbin-Watson stat	0.519540
Prob(F-statistic)	0.000000		

Source: Data Processing Results with Eviews 10, 2024

Based on the Figure, the Durbin-Watson value shows 0.519540. By using the Durbin-Waston table and with a significance of 5% with a sample size (N) of 270, the upper limit value or Durbin Upper is 2,000 and Durbin Lower is -2,000. Based on these results, it can be concluded that there is no autocorrelation in the regression model used.

Analysis of Regression
Table 9. Regression Estimation Result
Dependent Variable: Y
Method: Panel Least Squares
Date: 07/25/24   Time: 00:06
Sample: 2017 2022
Periods included: 6
Cross-sections included: 45
Total panel (balanced) observations: 270

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.375805	0.087338	-4.302907	0.0000
Capital	0.103589	0.038262	2.707374	0.0072
Asset	0.218101	0.091410	2.385949	0.0178
Management	0.086352	0.044756	1.929396	0.0548
Earning	0.090809	0.040984	2.215682	0.0276
Liquidity	0.108035	0.046029	2.347105	0.0197
CSR	1.258890	0.312497	4.028486	0.0001
KMBI1	0.052008	0.039359	1.321378	0.1875
KMBI2	0.055845	0.028612	1.951849	0.0520
KMBI3	0.035400	0.032137	1.101552	0.2717

R-squared	0.271628	Mean dependent var	0.334561
Adjusted R-squared	0.246415	S.D. dependent var	0.203473
S.E. of regression	0.176634	Akaike info criterion	-0.593144
Sum squared resid	8.111857	Schwarz criterion	-0.459869

Log likelihood	90.07444	Hannan-Quinn criter.	-0.539627
F-statistic	10.77338	Durbin-Watson stat	0.529678
Prob(F-statistic)	0.000000		

Source: Data Processing Results with Eviews 10, 2024

The results of the regression equation above can be concluded as follows.

1. The Prob. value of the Capital variable is 0.0072 which is smaller than 0.05, meaning it has a significant influence on Financial Sustainability.
2. The Prob. value of the Assets variable is 0.0178 which is smaller than 0.05, meaning it has a significant influence on Financial Sustainability.
3. The Prob. value of the Management variable is 0.0548 which is greater than 0.05, meaning it does not have a significant influence on Financial Sustainability.
4. The Prob. value of the Earnings variable is 0.0276 which is smaller than 0.05, meaning it has a significant influence on Financial Sustainability.
5. The Prob. value of the Liquidity variable is 0.0197 which is smaller than 0.05, meaning it has a significant influence on Financial Sustainability.
6. The Prob. value of the Corporate Social Responsibility variable is 0.0001 which is smaller than 0.05, meaning it has a significant influence on Financial Sustainability.
7. The value of the Bank Group Prob. based on Core Capital (KBMI) 1 is 0.1875, which means it is greater than 0.05, meaning it does not have a significant influence on Financial Sustainability.
8. The value of the Bank Group Prob. based on Core Capital (KBMI) 2 is 0.0520, which means it is greater than 0.05, meaning it does not have a significant influence on Financial Sustainability.
9. The value of the Bank Group Prob. based on Core Capital (KBMI) 3 is 0.2717, which means it is greater than 0.05, meaning it does not have a significant influence on Financial Sustainability.

Financial sustainability is significantly influenced by factors such as capital, assets, profit, liquidity, and CSR. These factors directly affect the financial and operational health of a bank, which affects its stability and ability to contribute to social welfare. Strong capital ensures sufficient reserves to support social projects, quality assets indicate effective risk management, healthy profits reflect profits for social programs, good liquidity ensures funds to meet short-term obligations, and CSR reflects the bank's commitment to social responsibility. However, variables such as management practices and bank groups based on core capital (CBC) 1-3 did not show significant effects on social financial sustainability. Factors such as different management styles, internal policies, and regulations may not always directly affect financial outcomes. In addition, the core capital category may include banks with diverse characteristics and strategies, which makes its effects on social sustainability more diverse and not always statistically significant.

Fractional Parameter Centrality Test (T Measurable Test)
Table 10. t Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.375805	0.087338	-4.302907	0.0000
Capital	0.103589	0.038262	2.707374	0.0072
Asset	0.218101	0.091410	2.385949	0.0178
Management	0.086352	0.044756	1.929396	0.0548
Earning	0.090809	0.040984	2.215682	0.0276
Liquidity	0.108035	0.046029	2.347105	0.0197
CSR	1.258890	0.312497	4.028486	0.0001
KBMI 1	0.052008	0.039359	1.321378	0.1875
KBMI 2	0.055845	0.028612	1.951849	0.0520
KBMI 3	0.035400	0.032137	1.101552	0.2717
R-squared	0.271628	Mean dependent var		0.334561
Adjusted R-squared	0.246415	S.D. dependent var		0.203473
S.E. of regression	0.176634	Akaike info criterion		-0.593144
Sum squared resid	8.111857	Schwarz criterion		-0.459869
Log likelihood	90.07444	Hannan-Quinn criter.		-0.539627
F-statistic	10.77338	Durbin-Watson stat		0.529678
Prob(F-statistic)	0.000000			

Source: Data processed by researchers using Eviews 12 software (2022)

The results of the partial hypothesis testing of this study are presented in Table 4.11 which shows that the value of the capital regression coefficient has a positive direction with a probability value of 0.0072 which indicates that capital has a positive and significant influence on financial sustainability. The value of the asset regression coefficient also shows a positive direction with a probability value of 0.0178 which indicates that assets have a positive and significant influence on financial sustainability. The value of the management regression coefficient shows a positive direction with a probability value of 0.0548 which indicates that management has a positive and insignificant influence on financial sustainability. The value of the profit regression coefficient shows a positive direction with a probability value of 0.0276 which indicates that profit has a positive and significant influence on financial sustainability. The value of the liquidity regression coefficient shows a negative direction with a probability value of 0.0197 which indicates that liquidity has a positive and significant influence on financial sustainability. Finally, the value of the corporate social responsibility coefficient shows a negative direction with a probability value of 0.0001 which indicates that corporate social responsibility has a positive and significant influence on financial sustainability.

Table 11. F Test Result

R-squared	0.260386	Mean dependent var	0.334561
Adjusted R-squared	0.243512	S.D. dependent var	0.203473
S.E. of regression	0.176973	Akaike info criterion	-0.600050
Sum squared resid	8.237060	Schwarz criterion	-0.506757
Log likelihood	88.00669	Hannan-Quinn criter.	-0.562587
F-statistic	15.43180	Durbin-Watson stat	0.519540
Prob(F-statistic)	0.000000		

Source: Data processed by researchers using Eviews 12 software (2022)

Table 11 shows that the Probability value (F-statistic) of the regression equation is 0.000000. This means that the Probability (F-statistic) is smaller than the significance level α (5%), therefore H 0 is rejected and H 1 not rejected . It can be concluded that Capital, Asset, Management, Earning, Liquidity have a significant effect on Financial sustainability . Thus, the 7 research hypothesis can be proven.

Coefficient of Determination (R Square)
Table 12. Result of Determination Coefficient

R-squared	0.260386	Mean dependent var	0.334561
Adjusted R-squared	0.243512	S.D. dependent var	0.203473
S.E. of regression	0.176973	Akaike info criterion	-0.600050
Sum squared resid	8.237060	Schwarz criterion	-0.506757
Log likelihood	88.00669	Hannan-Quinn criter.	-0.562587
F-statistic	15.43180	Durbin-Watson stat	0.519540
Prob(F-statistic)	0.000000		

Source: Data processed by researchers using Eviews 12 software (2022)

Based on Table 12, it can be seen that the coefficient of determination (R-squared) of the regression equation is 0.260386 or 26.03%. This shows that the contribution of the Capital, Asset, Management, Earning, Liquidity, and CSR variables in explaining the rise and fall or variation of Financial Sustainability is 26.03% and the remaining 73.97% comes from other variables that are not investigated in this study or are collected in the error term variable (ε).

5. Discussion

CAMEL Condition in Banking Companies Listed on the Indonesia Stock Exchange

This study uses descriptive statistics and linear regression methods to evaluate the relationship between the CAMEL (Capital Adequacy, Asset Quality, Management Efficiency, Earnings, and Liquidity) approach and financial sector sustainability (Ntaganira & Irechukwu, 2022). During the period 2017 to 2022, banks listed on the Indonesia Stock Exchange recorded a significant increase in the Capital Adequacy Ratio (CAR), indicating adequate capital adequacy to cover potential risks. The quality of productive assets also improved, reflected in the decrease in non-performing assets and an increase in risk management. Management efficiency can be seen from the decreasing BOPO (Operating Costs to Operating Income) ratio, indicating improved operational efficiency. Not only that, a positive profit (Earnings) ratio indicates stable profitability, while adequate liquidity ensures that banks are able to meet their short-term obligations.

CSR Condition in Banking Companies Listed on the Indonesia Stock Exchange

Corporate Social Responsibility (CSR) is a company's social obligation to the community. Highlighting the relationship between spending on social responsibility activities and company profitability (Shukla, 2022). Corporate Social Responsibility (CSR) plays an important role in the sustainability of banking companies in Indonesia. In the same period, the CSR disclosure ratio increased, indicating an increase in the

company's commitment to social responsibility. This disclosure covers various aspects such as social, environmental, and good governance (Vikusikzausik 2020). This increase in CSR practices not only improves the company's image but also strengthens relationships with stakeholders and the community.

Financial Sustainability Condition in Banking Companies Listed on the Indonesia Stock Exchange

Financial sustainability is the role of central banks and financial regulators playing an important role in managing climate-related financial risks. Climate risks can affect financial stability, economic growth, and inflation. Therefore, central banks have begun to consider climate risks in their monetary and macroprudential policies (Shirai, 2023). Financial sustainability is an important factor that reflects the ability of banking companies to continue operating in the long term. The increase in financial sustainability occurred from 2017 to 2022, this increase indicates that companies are better able to manage risks, improve operational efficiency, and utilize capital effectively. This not only strengthens the company's financial position but also has a positive impact on the economy of society as a whole. With strong financial sustainability, companies can contribute more to economic development, provide financing for small and medium-sized businesses, and support social and environmental initiatives that benefit the wider community. This creates a positive cycle in which financial stability strengthens public and investor confidence, which in turn drives economic growth and social welfare (Taylor, 2018).

The Influence of CAMEL on Financial Sustainability

Partial hypothesis testing using the t-test provides results that CAMEL variables, such as Capital Adequacy, Asset Quality, Management Efficiency, Earnings, and Liquidity, have different effects on the financial sustainability of banking companies listed on the Indonesia Stock Exchange. Based on the probability value (p-value), the Capital variable with a p-value of 0.0072, Asset with a p-value of 0.0178, Earnings with a p-value of 0.0276, and Liquidity with a p-value of 0.0197, have a significant effect on financial sustainability because the p-value is less than 0.05. This shows that capital management, asset quality, efficiency in generating profits, and good liquidity contribute positively to financial sustainability. However, the Management variable shows a p-value of 0.0548, which is greater than 0.05 so that it does not have a significant effect on financial sustainability. This means that banks with sufficient capital, good asset quality, stable profit-generating ability, and adequate liquidity are better able to face financial risks and support economic sustainability in society. These banks are better able to provide credit to important sectors of the economy, support small and medium-sized enterprises, and contribute to overall economic stability.

The Influence of CSR on Financial Sustainability

Corporate Social Responsibility (CSR) plays an important role in influencing financial sustainability. The t-test shows that CSR with a p-value of 0.0001 has a positive and significant effect on financial sustainability. The contribution of CSR to financial sustainability affects the social economic stability of the community. Companies involved in CSR often contribute to community development, such as improving education, health, and infrastructure, which in turn improves the quality of life of the

local community. Thus, CSR not only provides direct benefits to the company but also contributes to the social and economic welfare of the community as a whole. These results are in line with the results presented by Akhtar et al., (2021) and Amelia Sabela Cahyaningrum, nd, (2023) who found that CSR practices by banks not only increase profitability but also support their long-term financial sustainability. CSR contributes to financial performance, financial stability, and financial inclusion.

The Influence of CAMEL and CSR on Financial Sustainability

Simultaneously, the F test is used to assess the combined effect of CAMEL and CSR variables on financial sustainability. The test results show that the Probability (F-statistic) figure is 0.000000, which is smaller than the significance level of 0.05, then it is concluded that CAMEL and CSR simultaneously have a significant effect on financial sustainability. This shows that the combination of good financial management (as measured by CAMEL) and commitment to social responsibility (CSR) are key factors in ensuring financial sustainability in Indonesia. The combination of CAMEL variables (Capital Adequacy, Asset Quality, Management, Earnings, Liquidity) and Corporate Social Responsibility (CSR) has a significant effect on financial sustainability in the social economy of society. This means that companies that have active financial management in social responsibility tend to be more stable in the financial sector and can make a greater positive contribution to society.

This is in line with the findings (Melinda, 2021) where when financial performance is managed wisely and used to support operational practices that have social and environmental responsibilities, this can improve financial sustainability. Similar things are also obtained from the results of research (Roziq & Nisar Danurwenda, 2012) where the more optimal the company's financial performance management, the more optimal the company's CSR contribution to economic sustainability.

6. Conclusions

This research on banking companies listed on the Indonesia Stock Exchange (IDX) for the period 2017–2022 concludes that several factors significantly influence financial sustainability. Capital has a positive and significant effect, indicating that increased capital enhances resilience to financial risks while supporting regulatory and operational obligations. Bank assets also positively impact financial sustainability, as optimal asset management improves return on assets (ROA) and minimizes risks associated with non-performing assets. However, management does not significantly influence financial sustainability, suggesting that while effective management is important, it must be complemented by other factors such as capital and assets to achieve maximum results. Earnings or profitability positively affect financial sustainability, highlighting the need for banks to suppress operational costs and focus on increasing supporting variables to generate consistent profits. Liquidity also plays a significant role, emphasizing the importance of well-managed liquidity to meet short-term obligations, maintain customer trust, and ensure operational stability. Furthermore, corporate social responsibility (CSR) has a positive and significant

impact on financial sustainability, as transparent and well-implemented CSR programs enhance the bank's reputation, attract investors, and build customer loyalty.

Future research could explore the role of digital transformation in enhancing financial sustainability, particularly how technological advancements in banking influence factors such as capital efficiency, asset management, and profitability. Additionally, studies could investigate the impact of macroeconomic conditions, such as inflation or interest rate changes, on the financial sustainability of banks. Comparative studies between conventional and Islamic banks may also provide insights into how different banking models affect sustainability. Finally, further research could examine the long-term effects of CSR initiatives and customer trust on the financial performance of banks in different regions or economic conditions.

References:

Ahmed, S., Ellahi, N., Waheed, A., & Aman, N. (2022). Policy intervention and financial sustainability in an emerging economy: A structural vector auto regression analysis. *Frontiers in Psychology, 13*.https://doi.org/10.3389/fpsyg.2022.924545

Akhtar, S., Chaturvedi, K., Azhar, N., & Shamshad, M. (2021). Impact of corporate social responsibility on financial performance of selected banks in India: Based on CAMEL model. *South Asian Economic Review, 2*(2). https://doi.org/10.48185/sebr.v2i2.366

Cahyaningrum, A. S., & Muharam, H. (2023). The influence of corporate social responsibility (CSR) on financial performance, financial stability, and financial inclusion in banking companies. *Diponegoro Journal of Management, 12*(1), 2337–3792.

Bae, S. M., Masud, M. A. K., & Kim, J. D. (2018). A cross-country investigation of corporate governance and corporate sustainability disclosure: A signaling theory perspective. *Sustainability (Switzerland, 10*(8). https://doi.org/10.3390/su10082611

Banaszewska, M. (2021). Financial sustainability: Annotated bibliography. *Economics and Business Review, 7*(3), 3–4. https://doi.org/10.18559/ebr.2021.3.1

Cahya, K. D., & Riwoe, J. C. (2018). The effect of ROA and ROE on company value with sustainability reporting as an intervening variable in companies listed on LQ 45. *Journal of Accounting and Business Studies, 3*(1).

Dendawijaya, L. (2014). *Banking management* (3rd ed.). Ghalia Indonesia.

Harahap, H. K. (2019). The influence of leadership and compensation on job satisfaction through work motivation. *Scientific Journal of Master of Management.*

Elkington, J. (1977). *Cannibals with forks: The triple bottom line of twentieth-century business.* Capstone Publishing Ltd.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach.* Cambridge University Press. https://doi.org/10.1017/CBO9781139192675

Ganiem, L. M., & Kurnia, E. (2019). *Corporate communication: Theoretical and practical contexts.* Prenada Media.

Hamdani, S. M., & M. M., M. A. (2016). *Good corporate governance: A review of ethics in business practices.* Mitra Wacana Media.

Holub, R., Rudevska, V., & Vovchak, O. (2018). Peculiarities of ensuring financial sustainability of the Ukrainian banking system. *Banks and Bank Systems, 13*(1), 184–195. https://doi.org/10.21511/bbs.13(1).2018.17

Javed, T., Younas, W., & Imran, M. (2014). Impact of capital structure on firm performance: Evidence from Pakistani firms. *International Journal of Academic Research in Economics and Management Sciences, 3*(5). https://doi.org/10.6007/ijarems/v3-i5/1141

Kamal, A., Mahmood, M., Khan, S., Kazmi, R., Anis, W., Hussain, T., & Sualeh, M. (2021). Impact of financial inclusion and corporate social responsibility on Islamic banks' financial stability with the moderating role of corporate governance. *Indian Journal of Economics and Business, 20*(1).

Kasmir. (2013). *Bank dan lembaga keuangan lainnya.* PT RajaGrafindo Persada.

Kasmir. (2014). *Financial report analysis* (7th ed.). PT RajaGrafindo Persada.

Kurniawan, Y., & Josua, S. (2013). The effect of sustainability report disclosure on company profitability. *Business Accounting Review, 1.*

Kusekwa, Z. G., & Musa Masanja, N. (2022). The effect of liquidity management on financial sustainability of selected private secondary schools in Tanzania: A case of Lake Zone. *International Journal of Innovation and Economic Development, 4*(24–35). www.ijieb.co.tz

Munandar, A., & Aravik, H. (2022). The influence of CAMEL on the financial sustainability ratio of Islamic commercial banks for the period June 2014–February 2022. *Journal of Islamic Economic Thought and Development, 8*(1).

Munawir. (2010). *Financial report analysis.* Liberty.

Ntaganira, S., & Irechukwu, E. N. (2022). CAMEL approach and financial sector sustainability of commercial banks in Rwanda: A case of Bank of Kigali, Rwanda. *Journal of Finance and Accounting, 6*(1), 140–166. https://doi.org/10.53819/81018102t2059

Nurvita, T., & Dayanti, E. (2021). Factors affecting financial sustainability: Study on manufacturing companies listed on the IDX. *Essence: Journal of Business Management, 24*(2). www.idx.co.id

Piletska, S. T., Korytko, T. Y., & Khrapach, V. O. (2020). Management of the financial sustainability of enterprises in the context of economic security during strengthened integration processes. *Business Inform, 12*(515), 245–251. https://doi.org/10.32983/2222-4459-2020-12-245-251

Pranesti, A., Larasati, K. S., & Widiyanti, A. (2022). Sustainability performance and firm value: A theoretical study. *Scientific Journal of Batanghari University, Jambi, 22*(3), 1624–1631.

Rindiyawati, A., & Arifin, J. (2019). Determinants of corporate social responsibility disclosure in the banking industry. *Journal of Accounting and Business, 19*(1), 1.

Shirai, S. (2023). *Global climate challenges, innovative finance, and green central banking.* Asian Development Bank Institute.

Tamin, M., Hilmi, H., Satria, D. I., & Usman, A. (2022). The effect of BOPO and FDR on profitability at Islamic commercial banks in Indonesia, 2016–

2020. *Malikussaleh   Accounting   Journal   (JAM,   1*(1), 123. https://doi.org/10.29103/jam.v1i1.7447

Taylor, J., Vithayathil, J., & Yim, D. (2018). Are corporate social responsibility (CSR) initiatives such as sustainable development and environmental policies value-enhancing or window dressing? *Corporate Social Responsibility and Environmental   Management,   25*(5),   971–980. https://doi.org/10.1002/csr.1513

Wati, L. N. (2019). *Corporate social responsibility (CSR) model.* Myria Publishers.

Wu, N., Zhao, J., Musah, M., Ma, Z., Zhang, L., Zhou, Y., Su, Y., Agyemang, J. K., Asiamah, J. A., Cao, S., Yao, L., & Li, K. (2023). Do liquidity and capital structure predict firms' financial sustainability? A panel data analysis on quoted non-financial establishments in Ghana. *Sustainability (Switzerland, 15*(3). https://doi.org/10.3390/su15032240