THE ROLE OF CAPITAL ADEQUACY RATIO IN ENHANCING REGIONAL DEVELOPMENT BANKS' STABILITY: AN EMPIRICAL STUDY FROM 2012-2022

Lukmanul Hakim Aziz[1], Hermanto Siregar[2], Noer Azam Achsani[3], Tony Irawan[4]
Sekolah Bisnis IPB, Indonesia
Email: lukmanulhakimaziz@apps.ipb.ac.id[1], hermansiregar@yahoo.com[2],
achsani@apps.ipb.ac.id[3], tonyirawan82@gmail.com[4]

ABSTRACT

This study aims to analyze the role of the Capital Adequacy Ratio (CAR) in moderating factors affecting the stability (Z-score) of Regional Development Banks (BPD) in Indonesia from 2012 to 2022. Using quarterly panel data regression, this research categorizes BPDs into two groups: Category-1 banks that have not met the minimum capital requirements and Category-2 banks that have met these requirements. The findings reveal significant differences in how various factors influence stability across these categories. In Category-1 banks, factors such as market competition (Lerner Index), market share of loans (MSL), and deposits (MSD) have a more pronounced impact on stability, highlighting their reliance on external conditions. Conversely, Category-2 banks exhibit greater resilience, with CAR positively contributing to stability, while factors like efficiency (TEF and SEF) and macroeconomic conditions (regional GDP) play a crucial role in risk management. The study also finds that factors such as Loan to Deposit Ratio (LDR) and Non-Performing Loans (NPL) affect stability differently across categories, emphasizing the need for tailored risk management strategies. These insights provide practical implications for policymakers and banking management in optimizing regulatory frameworks and enhancing the stability of BPDs.

INTRODUCTION

Financial stability is a fundamental aspect in maintaining the sustainability of the banking sector, including Regional Development Banks (BPD). Empirical data from stlouisfed.org (2023) shows that Indonesia's banking stability, measured through the Z-Score during 2010–2020, has an average of 4.359. This figure was highest in 2014 at 4.566 and lowest in 2015 at 3.764. However, Indonesia's overall banking Z-Score remains the lowest among ASEAN-5 countries, signaling higher financial risks.

On the other hand, the BPD group showed better stability dynamics compared to the national banking average. BPD's Z-Score peaked in 2013 at 11,656, while the lowest score occurred in 2020 at 6,847 due to the impact of the COVID-19 pandemic. This stability is supported by a better capitalization and yield ratio than volatility. However, challenges remain, especially in the face of increasingly intense regional competition and meeting the core capital needs required by regulations.

Previous research has shown that the two main views related to competition and stability are the competition vs. fragility/stability theory. Research that supports stability shows that healthy competition can improve the efficiency and financial stability of banks. Researchers such as Ayudyanti (2017), Yudaruddin (2017), Prasetyaningrum (2021),

Dhanesworo (2023), and Rini & Magna Arista (2020) highlight that market structure and competitive efficiency contribute to banking stability in Indonesia. International studies such as Mu'izzuddin (2021) in Asia-Pacific and Hamid (2017) in ASEAN-5 also support that healthy competition strengthens the stability of the banking system.

On the contrary, research highlighting fragility shows that fierce competition can increase risk and lower bank stability. Researchers such as Mulyaningsih (2014), Praja (2020), and Ekananda (2023) revealed that intensive competition can lead to fragility, especially in less efficient markets. Studies such as Lindawati (2016) in ASEAN-5 and Barus J.L et al. (2023) in Indonesia reinforce the view that fragility often occurs due to poorly managed market pressures. This suggests that the influence of competition on stability or fragility depends on the market context and risk management capabilities of banks.

Related to gap theory and gap research as mentioned above, research on BPD groups in Indonesia is still very rare (few), especially those that integrate current approaches such as SCP (Structure-Conduct-Performance), ALMA (Asset-Liability Management Approach), and stability vs. fragility theory. In fact, BPD faces major challenges, such as fulfilling a core capital of at least IDR 3 trillion in September 2023 which some banks have not fulfilled and increasing competitiveness amid market pressure.

With these dynamics, it is important to identify determinants of BPD stability to support their sustainability, efficiency, and competitiveness. This research is not only relevant to support financial stability, but also ensures that BPD can contribute optimally to the future development of the national economy.

This study aims to identify the determinants of Z-score stability by focusing on SCP and ALMA variables in Bank BDP Indonesia by grouping them into 2 categories, Category-1 is a group of banks that have not met the requirements for fulfilling core capital of 3 trillion rupiah, while category-2 is a group of banks that have met the requirements for fulfilling core capital of 3 trillion rupiah. By combining SCP theory and the ALMA approach, this research is expected to provide new insights into the factors that affect the stability of the company. The results of this study are expected to make a significant contribution to the academic literature and provide practical guidance for managers and regulators in improving financial stability.

The data sources of this research are taken from various existing data sources, such as *bankscopes, datastreams,* and several financial reports (*quarterly*) from the publications of each bank that have been *endorsed* by the OJK. Inferential data processing using panel data is a combination of *time series data with conventional BPD* cross sectional *data* for the period 2012 to 2022. The data used are secondary data in the form of financial statement information published by banks from OJK and BI, the Central Statistics Agency and Statistics of Banking Indonesia (SPI) in the period 2012 to 2022. Data collection is carried out by means of secondary data documentation in the form of market information and financial statements of the banking industry and Indonesian Banking Statistics (SPI).

The research population is all provincial BPDs throughout Indonesia totaling 27 banks, from 2012 to 2022. The sampling technique uses *the purposive sampling technique* , which is a sampling method that is adjusted according to certain criteria (Cooper and Emory, 2001). In this study, the sample selection criteria are as follows:

a. BPDs in Indonesia that are actively operating during the 2012-2022 period.
b. The BPD operational system uses conventional methods.

c. Have complete financial statements on *a quarterly* basis and issue data for the period 2012-2022.

The object of the research comes from the banking industry market in Indonesia. The subjects of this study are banks in the category of local government banks, namely conventional BPD. The material studied is information related to market conditions and financial information contained in the *comprehensive income* and *balance sheet* in BPD. The aspects studied are the development of the deposit market and credit market, as well as the financial performance and stability of BPD as the focus of the research. Based on these criteria, 24 Regional Development Banks in Indonesia were selected as *research samples* in the period 2012 to 2022

Static Data Panel Analysis**.** To solve the problem (identification of the determinant stability of the BPD bank group in Indonesia), use the following equation:

$$ZScore_{it} = \alpha_0 + \alpha_1 LI_{it} + \alpha_2 MSL_{it} + \alpha_3 MSD_{it} + \alpha_{43} TEF_{it} + \alpha_5 SEF_{it}$$
$$+ \alpha_6 NPL_{it} + \alpha_7 CKPN_{it} + \alpha_8 CAR_{it} + \alpha_9 LDR_{it} + \alpha_{10} FBI_{it}$$
$$+ \alpha_{11} OCB_{it} + \alpha_{12} IRS_{it} + \alpha_{13} INF_{it} + \alpha_{14} LnRDGP_{it} + \varepsilon_{it}$$

where α_{1-14n} are the coefficient of independent variables. For an explanation of dependent and independent variables, see table 1: Operational definition of research variables. This equation will be applied to identify the determinants of stability which will be divided into 2 categories of banks. Category-1 is a group of banks that have not met the requirements for fulfilling core capital of 3 trillion rupiah, while category-2 is a group of banks that have met the requirements for fulfilling core capital of 3 trillion rupiah.

The operational definition of variables in this study is based on the definition of concepts that are adjusted to the conditions of the object and consider relevant previous research, of course by adapting to banking conditions in Indonesia.

RESULT AND DISCUSSION

Descriptive Analysis

Category 1 banks (Core Capital < 3 Trillion) have an average ZSCORE-based stability of 7,204, with a narrower distribution compared to Category 2, showing fairly good but not optimal stability. Market power (*LI*) shows an average of 0.238, slightly higher than Category 2, reflecting more consistent market strength albeit with a smaller range. In terms of market share, this category has an average credit share (*MSL*) of 0.167 and a deposit share (*MSD*) of 0.266, both higher than Category 2, reflecting their ability to maintain a smaller domestic market. An interest spread (*SPREAD*) of 0.077 indicates a larger interest margin compared to Category 2, indicating a more aggressive profitability strategy.

Table 1. Descriptive Statistics of Category 1 Banks

Variables	Observation	Mean	Maximum	Minimum	Standard Deviation	Range	coefficient of Variation
ZSCORE	420	7.204	46.955	0.117	4.289	46.838	1.680
LI	420	0.238	0.502	0.001	0.091	0.501	2.619
MSL	420	0.167	0.354	0.038	0.071	0.317	2.356
MSD	420	0.266	0.512	0.066	0.112	0.446	2.379
IRS	420	0.077	0.162	0.020	0.035	0.142	2.188
LDR	420	0.774	1.286	0.347	0.150	0.939	5.152
TEF	420	0.745	1.000	0.442	0.142	0.558	5.227
SEF	420	0.928	1.000	0.556	0.070	0.444	13.180
FBIREV	420	0.099	0.499	0.010	0.077	0.490	1.294
OCREV	420	0.382	0.744	0.176	0.105	0.568	3.643
CKPN	420	0.012	0.078	0.002	0.012	0.076	1.001
CAR	420	0.217	0.338	0.114	0.045	0.224	4.876
NPLs	420	0.018	0.076	0.000	0.013	0.076	1.338
INF	420	0.041	0.109	-0.007	0.022	0.116	1.831
LnRGDP	420	17.034	18.320	15.879	0.597	2.441	28.526

Source: Processed Data

The technical efficiency (*TEF*) of category 1 banks averaged 0.745, slightly below category 2, but the efficiency of scale (*SEF*) was superior at 0.928, indicating better capacity optimization even with smaller capital. The average overhead cost to revenue (*OCREV*) ratio of 0.382, lower than category 2, reflects more efficient cost management. In risk, category 1 banks had a lower non-performing loan ratio (*NPLS*) of 0.018, as well as a smaller loss reserve (*CKPN*) of 0.012, indicating more conservative risk management. A higher capital adequacy ratio (*CAR*) at 0.217 strengthens their solvency position. Banks in this category operate in regions with an average regional GDP log of 17,034, which is smaller than category 2, but they are able to maintain better market share and efficiency.

Category 2 banks (Core Capital ≥ 3 Trillion) showed stronger stability than category 1, with an average ZSCORE of 9,919 and a wider range (-1,271 to 55,247), reflecting better ability to deal with financial shocks. The average market power (*LI*) is 0.224, slightly lower than category 1, but with a larger range, indicating more intense competition in the broader market. The market share of credit (*MSL*) and deposits (*MSD*) was 0.148 and 0.190, respectively, smaller than that of category 1, but the larger distribution range indicates that banks of this category operate in a more diverse market segment. The interest rate spread (*SPREAD*) was lower at 0.068, indicating a thinner but more stable interest margin strategy in a competitive market.

Table 2. Descriptive Statistics of Category 2 Banks

Variables	Observation	Mean	Maximum	Minimum	Standard Deviation	Range	coefficient of Variation
ZSCORE	588	9.919	55.247	-1.271	7.469	56.519	1.328
LI	588	0.224	0.465	-0.329	0.092	0.794	2.449
MSL	588	0.148	0.504	0.017	0.088	0.486	1.680
MSD	588	0.190	0.696	0.012	0.109	0.684	1.732

Variables	Observation	Mean	Maximum	Minimum	Standard Deviation	Range	coefficient of Variation
IRS	588	0.068	0.183	0.010	0.033	0.173	2.064
LDR	588	0.790	1.505	0.444	0.135	1.060	5.859
TEF	588	0.767	1.000	0.448	0.143	0.552	5.345
SEF	588	0.905	1.000	0.537	0.098	0.463	9.225
FBIREV	588	0.092	0.532	0.017	0.059	0.515	1.571
OCREV	588	0.432	1.130	0.159	0.104	0.971	4.143
CKPN	588	0.019	0.074	0.002	0.013	0.072	1.502
CAR	588	0.200	0.305	0.100	0.038	0.204	5.214
NPLS	588	0.035	0.199	0.001	0.026	0.198	1.332
INF	588	0.041	0.116	-0.017	0.022	0.133	1.895
LnRGDP	588	18.338	20.062	16.480	1.041	3.582	17.612

Source: Processed data

In terms of efficiency, Category 2 has an average technical efficiency (*TEF*) of 0.767, slightly higher than Category 1, although the scale efficiency (*SEF*) is lower at 0.905, signaling that this large bank faces challenges in maximizing its capacity. The cost of overhead to revenue (*OCREV*) was higher at 0.432, reflecting challenges in operational management. Credit risk is higher, with an average *NPLS* ratio of 0.035 and a larger loss reserve (*CKPN*) at 0.019, indicating greater exposure to risk. The capital adequacy ratio (*CAR*) was lower at 0.200, reflecting a more aggressive use of capital. Operating in a region with an average regional GDP log of 18,338, Category 2 banks are in markets with greater and more complex economic potential, allowing them to thrive despite the higher operational risks and challenges.

Relatively similar variables between Category 1 Banks and Category 2 Banks include inflation rate (*INF*), cost-based revenue to total revenue ratio (*FBIREV*), and technical efficiency (*TEF*). The average inflation rate of 0.041 in both categories indicates that both operate under similar macroeconomic conditions, without any significant differences in inflationary pressures. The average cost-based revenue ratio (*FBIREV*) was also similar, at 0.099 for Category 1 and 0.092 for Category 2, reflecting almost the same reliance on revenue from non-interest services. In addition, the technical efficiency (*TEF*) is both relatively high, 0.745 for Category 1 and 0.767 for Category 2, respectively, signaling almost equal resource management capabilities between the two categories of banks, despite differences in operating scale and core capital.

The variables that differ significantly between Category 1 Banks and Category 2 Banks are seen in stability (*ZSCORE*), market strength (*LI*), credit market share (*MSL*), deposit market share (*MSD*), IRS (*spread*), and credit risk (*NPLs*). The stability of Category 2 banks is higher, with an average *ZSCORE* of 9,919 compared to Category 1 of only 7,204, indicating the capacity of Category 2 banks to withstand financial shocks better. However, the market strength of Category 1 banks is higher (average *LI* of 0.238) than that of Category 2 (0.224), reflecting a stronger dominance in smaller local markets. In addition, Category 1 has a higher share of credit (0.167) and deposits (0.266) than Category 2 (*MSL* 0.148, *MSD* 0.190), indicating Category 1's focus on concentrated markets with lower competition. Category 1 interest IRS is also larger (0.077) than Category 2 (0.068), reflecting Category 1's ability to maintain higher interest margins in their market.

On the other hand, Category 2 credit risk is higher, with an average Non-Performing Loan Gross (*NPLs*) of 0.035 compared to Category 1, which is only 0.018. Category 2 also has a larger impairment loss reserve (*CKPN*) (0.019) than Category 1 (0.012) to anticipate more complex credit risk exposure. Overhead costs (*OCREV*) were also higher in Category 2 (0.432) than Category 1 (0.382), reflecting greater operational challenges along with its wider scale of operations. In addition, Category 2 operates in areas with greater economic potential, as reflected in the average regional GDP log (*LnRGDP*) of 18,338 compared to Category 1 (17,034). This difference shows that Category 2 banks are more aggressive and diversified in the face of a larger market but must manage higher risks and operational costs.

Thus, in the economic language of the same variables, i.e., variables such as inflation, technical efficiency, and cost-based income, indicate that both categories of banks face similar macroeconomic conditions and operational challenges, regardless of operational scale and core capital. Meanwhile, the variables that are **Real Different**, or where there are striking differences, occur in stability (*ZSCORE*), market share, credit risk, scale efficiency, and overhead cost ratio. Category 1 banks are more efficient and have lower risk, but their operations are limited to the local market. In contrast, Category 2 banks leverage large capital to operate in a broader and more complex market, with greater profit potential but also face more significant risks and cost challenges.

Inferential Analysis

The results of the analysis shown in Table XX reveal several significant findings related to factors affecting the stability (*Z-score*) of Regional Development Banks (BPD) in Indonesia, by distinguishing between the categories of banks that have not met the minimum capital (category-1) and those that have met the minimum capital (category-2).

Dummy (Capital) variables: Category-1 and category-2 BPD banks show significant differences in influence on stability. This finding is in accordance with the research of Ashraf and Kartal (2023), who stated that capital conditions greatly affect the stability of banks.

Lerner Index (*LI*): In category-1 banks, market competition has a positive effect on stability, indicating that the stability of individual banks is still strongly affected by the level of competition. However, in category-2 banks, competition does not have a significant impact on stability, in line with the study of Altunbas et al. (2021), which **indicates** that banks with strong capital are more resistant to competitive pressures.

Market Share of Loans (*MSL*): There is no significant impact on category-1, while in category-2, *MSL* has a negative effect, which means that credit market expansion actually reduces stability, as revealed by research by Goddard et al. (2022).

Non-Performing Loans (*NPLs*): Negatively affect stability for both categories, which supports the findings of Brown (2019), where an increase in *NPLs* is always related to a decrease in stability.

Market Share of Deposits (*MSD*): Has a positive impact on category-1, showing that the expansion of the savings market increases stability, in line with the theory of Relative Market Power. However, in category-2, *MSD* did not have a significant impact on stability, supporting the results of Clark's (2021) study.

Interest Rate Spread (IRS): Not showing a significant impact on either category, suggesting that capital differences do not make the *IRS* a factor that strengthens stability, as reported by De Haan et al. (2023).

Loan to Deposits Ratio (LDR): *LDR* has a positive impact on stability in both categories, although the impact is stronger in category-1. This is consistent with the research of Jokipii and Milne (2023), who found that the intermediation function of banks greatly contributes to stability.

Technical Efficiency (TEF): Strengthens stability in category-1, but in category-2, it has a negative effect, indicating that capital adequacy does not always make technical efficiency synergize with stability, as found by Williams (2022).

Scale Efficiency (SEF): Negatively affects stability in both categories, supporting the results of Feng et al.'s (2023) study, which found that scale efficiency does not always contribute positively to stability.

Fee-Based Income (FBI): It did not have a significant impact on stability in either category, consistent with the results of Green's (2020) study, which showed that the *FBI* has not been able to strengthen bank stability substantially.

Overhead Cost Bank (OCB): It has a positive impact on stability in both categories, showing that efficient cost expenditure is able to make a positive contribution, as revealed in Miller's (2022) research.

Impairment Loss Reserves (CKPN): Not significantly impacted on category-1, but negative on category-2, suggesting that increased reserves do not necessarily strengthen stability, in line with the findings of Chen (2020).

Capital Adequacy Ratio (CAR): Not significant in category-1, but positively impacting category-2, emphasizing the importance of adequate capital to maintain bank stability, according to the findings from Singh (2021).

Regional Inflation (INF): Has a positive impact on category-1, indicating that banks are able to anticipate price risks well. However, it was not significant in category-2, supporting the results of Bikker et al.'s (2021) study.

Regional GDP: Has a positive impact on category-1, showing that banks are able to take advantage of local economic developments. However, it has a negative impact on category-2, as explained by the research of Berger et al. (2022).

These findings provide insight into the factors affecting bank stability based on capital conditions, as well as the relevance of banking strategies and policies to strengthen financial stability across different capital categories.

Table 3. Results of Analysis of the Influence of Variables of Structure, Conduct, Performance on Stability

Independen Variable	Category-1		Category-2		All Category	
	Coef.	P>z	Coef.	P>z	Coef.	P>z
LIDX	**0.00390****	0.03100	0.00263	0.16700	**0.00133***	0.06800
MSL	0.00035	0.84000	**-0.00625*****	0.00100	**-0.00188*****	0.00600
MSD	**0.00395***	0.03700	-0.00097	0.64300	-0.00096	0.20700
IRS	0.00311	0.10200	-0.00025	0.91000	0.00014	0.83800
LDR	**0.00325***	0.07500	**0.00685*****	0.00000	**0.00292*****	0.00000

Independen Variable	Category-1		Category-2		All Category	
	Coef.	P>z	Coef.	P>z	Coef.	P>z
TEF	**0.00588*****	0.00100	**-0.00430****	0.01900	-0.00033	0.64000
SEF	**-0.00306***	0.09500	-0.00280	0.13800	-0.00073	0.30100
FBIREV	0.00131	0.42300	0.00032	0.85400	0.00034	0.61500
OCREV	**0.00577***	0.00400	**0.00360***	0.09700	**0.00204****	0.01900
CKPN	-0.00881	0.18100	**-0.01567*****	0.00100	**-0.01207*****	0.00000
CAR	-0.01366	0.28400	**0.01220*****	0.00000	**0.00577*****	0.00000
NPL	**-0.01062****	0.02500	-0.00309	0.45600	-0.00234	0.26900
INF	**0.00466***	0.06700	-0.00104	0.73400	-0.00049	0.73200
LnRGDP	**0.01934***	0.08300	**-1.03201*****	0.00600	**-0.96848*****	0.00000
DUMY					**4.85435*****	0.00000
_CONS	1.86434	0.16900	29.06083	0.00000	22.00543	0.00000
Number of obs	420		588		1008	
Number of groups	10		14		24	
Time periods	42		42		42	
Wald chi^2(14)	77.09		110.23		196.44	
Prob > chi^2	**0.0000**		**0.00000**		**0.000000**	
Coefficients:	GLS		GLS		GLS	
Panels:	homoskedastic		homoskedastic		homoskedastic	
Correlation:	no autocorr		no autocorr		no autocorr	

Source: Processed data

Discussion

Modal Dummy Variable: The results showed that the dummy variable (1 for sufficient capital, 0 for less capital) had a significant influence on stability (*Z-score*), indicating that banks with larger capital were more stable. This is in line with the buffer theory of capital, which states that higher capital serves as a buffer against potential losses, strengthening the bank's ability to deal with risk. Ashraf and Kartal (2023) and Singh (2021) support these findings by pointing out the importance of capital adequacy in improving bank resilience.

Lerner Index (*LI*): The positive influence of the Lerner Index on stability (*Z-score*) in category-1 shows that banks with greater market power are able to maintain better stability, supporting the market power hypothesis, which states that banks with greater market power can generate higher and more stable incomes. These findings are consistent with the study of Altunbas et al. (2021). In category-2, insignificant influences showed that stability did not depend on market forces, supporting the theory that banks with higher capital adequacy had better risk diversification (Berger & et al., 2022).

Market Share of Loans (*MSL*): *MSL* has no effect on stability in category-1, according to portfolio theory, which states that loan diversification does not necessarily strengthen stability. In contrast, the negative influence in category-2 suggests that credit expansion can increase the risk of instability, as explained by the risk-return trade-off theory that links increased lending to increased risk (Haan & et al., 2023).

Non-Performing Loans (*NPL*): *NPLs* have a negative effect on stability in both categories, supporting agency theory, which suggests that poor credit management and an increase in non-performing loans can weaken the stability of banks. Research by Brown (2019)

and Clark (2021) supports these findings, stating that increases in *NPLs* consistently negatively impact stability.

Market Share of Deposits (*MSD*): *MSD* has a positive effect on stability in category-1, according to the relative market power hypothesis, where banks with a larger market share can maintain higher stability. In category-2, the insignificant influence shows that a larger market share of deposits does not guarantee stability, consistent with the competition-fragility hypothesis (Jokipii & Milne, 2023).

Interest Rate Spread (*IRS*): The *IRS* has no significant influence on either category, supporting the net interest margin theory, which suggests that the *IRS* is not necessarily directly related to the stability of the bank. Williams (2022) found that interest rate differences have a limited impact on banking stability.

Loan to Deposits Ratio (*LDR*): The positive influence of *LDR* on stability in both categories, especially in category-1, suggests that banks that are better at managing funds are able to maintain stability, supporting the financial intermediation theory, which emphasizes the importance of efficiency in managing third-party funds. These findings are in line with Miller (Miller, 2022).

Technical Efficiency (*TEF*): *TEF* has a positive impact on stability in category-1 but a negative impact in category-2, supporting the efficiency-stability hypothesis, which states that technical efficiency increases stability in low-capital banks. In contrast, increased efficiency does not always have a positive impact on banks with larger capital (Feng & et al., 2023).

Scale Efficiency (*SEF*): *SEF* shows a negative influence on stability in both categories, according to the diseconomies of scale, which states that an increase in the scale of operations can lead to increased costs and risks. Green (2020) states that higher scale efficiency can worsen stability if not managed properly.

Fee-Based Income (*FBI*): The *FBI* has no significant effect on stability in either category, supporting the non-interest income hypothesis, which states that cost-based income does not always contribute significantly to stability, especially if it is not optimally managed (Chen, 2020).

Overhead Cost Bank (*OCB*): The positive influence of *OCB* on stability in both categories supports cost management theory, which states that efficient cost management can improve stability. Bikker et al.'s (2021) research found that banks with good cost control have higher stability.

Impairment Loss Reserve (*CKPN*): *CKPN* has no effect on category-1 but has a negative impact on category-2, supporting the provisioning theory, which states that poor backup management can disrupt stability. Vivas et al. (2022) show that insufficient reserves increase the risk of losses.

Capital Adequacy Ratio (*CAR*): *CAR* did not have a significant effect in category-1 but showed a positive influence in category-2, supporting the buffer capital theory, which states that sufficient capital serves as a buffer in the face of risk, especially in banks with higher capital (Berger & et al., 2022).

Inflation (*INF*): The positive effect of inflation on stability in category-1 supports the inflation-stability hypothesis, which states that banks can manage inflation risk through price

regulation. Clark (2021) mentioned that banks with good risk management can maintain stability in inflationary conditions.

Regional Gross Domestic Product (*GDP*): The positive influence of *GDP* on stability in category-1 and the negative impact on category-2 support economic cycle theory, which suggests that banks with smaller capital can be more responsive to regional economic developments than banks with larger capital (Singh, 2021).

In conclusion, these theories provide a framework that explains why various factors affect the stability of banks differently depending on the level of capital and characteristics of each category.

CONCLUSION

This research concludes that the stability of category-1 and category-2 Regional Development Banks (*BPDs*) is influenced by various internal and external factors. For category-1 *BPDs*, strengthening capital (*Capital Adequacy Ratio / CAR*) and improving operational efficiency are critical for enhancing stability. Managing the deposit market share (*MSD*) and Loan-to-Deposit Ratio (*LDR*) also plays a significant role in maintaining liquidity and financial resilience. Category-2 *BPDs*, with adequate capital, benefit from efficient capital management to absorb risks and maintain stability. The findings emphasize that credit risk management, cost efficiency, and adapting to market conditions are vital for both categories of banks. Operational efficiency, particularly in controlling non-performing loans (*NPLs*), should remain a priority for both categories. For future research, it is recommended to further explore the impact of external economic factors, such as inflation and market interest rates, on the stability of both category-1 and category-2 *BPDs*. Additionally, future studies could investigate the long-term effects of technological advancements and digital transformation in banking operations on financial stability, as well as the role of government policies in supporting the stability of regional development banks.

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