THE IMPACT OF REGIONAL DEVELOPMENT BANK FINANCIAL RATIOS ON MSME CREDIT GROWTH IN THE BLUE AND GREEN ECONOMY AREAS OF BERAU REGENCY

Hasnawati[1]

1. Faculty Economics, Muhammadiyah University of Berau, Indonesia
E-mail: Hasnawati@gmail.com

Received: April 2025; Accepted: April 2025; Published: June, 2025
Permalink/DOI:

.

ABSTRACT

This study aims to analyze the impact of financial ratios on the growth of Micro, Small, and Medium Enterprises (MSME) credit at Regional Development Banks (BPD) in the blue and green economy areas of Berau Regency. The variables analyzed include the Capital Adequacy Ratio (CAR), Core Capital Ratio (CCR), Return on Assets (ROA), Operating Expenses to Operating Income (BOPO), and Liquid Assets Ratio (LAR), using the Error Correction Model (ECM) method. Secondary data were obtained from the Financial Services Authority, Bank Indonesia, and the Central Statistics Agency for the period from January 2012 to December 2015. The results show that in the long term, CAR has a significant effect on MSME credit growth, while in the short term, it does not. CCR does not have a significant impact in either the short or long term. ROA and BOPO have a significant negative effect on MSME lending in both time frames. Meanwhile, LAR does not show a significant effect on MSME credit in either the short or long term. These findings provide important implications for BPD's financial management in supporting sustainable MSME growth in the blue and green economic sectors of Berau Regency.

Keywords: MSME Credit, Financial Ratios, CAR, CCR, ROA, BOPO, LAR, Blue Economy, Green Economy, Berau Regency.

.

.

INTRODUCTION

Regional economic development is an integral part of sustainable national development. Within this framework, the banking sector—particularly Regional Development Banks (BPD)—plays a vital role as financial intermediaries that channel public funds into productive sectors, especially to Micro, Small, and Medium Enterprises (MSMEs). Amid global and national economic dynamics that are vulnerable to crises, MSMEs have proven to be relatively resilient. The monetary crisis of 1997–1998 and the global financial crisis of 2008 showed that MSMEs were able to survive even when large corporations collapsed, largely due to their business models being less dependent on foreign currency financing and large-scale capital.

In Berau Regency, which is currently developing a Blue and Green Economy, synergy between economic growth and environmental sustainability is essential. In this context, the role of MSMEs becomes strategic, particularly in natural resource-based economic activities such as fisheries, organic agriculture, and ecotourism. However, realizing the full potential of MSMEs in this area heavily depends on financial support, especially from local financial institutions like BPD.

A persistent issue faced by MSMEs is limited access to formal financing. According to Bank Indonesia (2023), around 70% of MSMEs in underdeveloped and green economy-based areas still rely on non-bank financing, which is often informal and carries high risk. Yet, numerous studies have shown that the success of MSMEs in scaling up their operations is strongly influenced by stable and affordable financial support. One approach to measuring BPD's effectiveness in distributing credit to MSMEs is through analysis of financial ratios, such as the Loan to Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), and Non-Performing Loan (NPL).

Research by Handayani and Kusnandar (2022) found a positive relationship between LDR and MSME credit growth in Central Java, whereas a high NPL was identified as a major hindrance. Similarly, a study by Prasetyo et al. (2023) suggested that a high CAR indicates a bank's ability to absorb risk, thereby encouraging more confidence in lending to MSMEs in the agriculture and fisheries sectors. However, there is still a lack of research specifically examining the correlation between BPD financial ratios and MSME credit growth in blue and green economy regions like Berau Regency.

Given the crucial role of MSMEs in supporting sustainable economies and the need for well-performing BPDs to provide financing, this study aims to analyze the extent to which BPD financial ratios impact MSME credit growth in the Blue and Green Economy areas of Berau Regency. The findings of this study are expected to contribute significantly to policy development for more inclusive financing schemes and to serve as strategic input for local governments and the banking sector in fostering sustainable economic growth.

METHOD

This study aims to analyze the impact of the financial ratios of Regional Development Banks (BPD) on the growth of Micro, Small, and Medium Enterprises (MSME) credit in the Blue and Green Economy regions of Berau Regency. This region was selected due to its commitment to sustainable development approaches based on marine and environmental resources, where MSMEs play a vital role in supporting the local economy. The object of this research is the actual realization of MSME credit disbursement by BPD during the period from January 2023 to December 2024, examining the influence of five key financial ratios: Capital Adequacy Ratio (CAR), Core Capital Ratio (CCR), Return on Assets (ROA), Operating Expenses to Operating Income (BOPO), and Liquid Assets Ratio (LAR).

The type of data used in this research is monthly time series secondary data obtained from official institutions, namely the Financial Services Authority (OJK), Bank Indonesia (BI), and the Central Statistics Agency (BPS). The data were collected through literature review methods involving reports and official publications issued by these three institutions. The research method applied is a quantitative approach, with data analysis conducted using the Error Correction Model (ECM), which is capable of measuring both short-term and long-term relationships between the research variables. Prior to ECM estimation, the analysis begins with a stationarity test to ensure the data are free from unit root issues, followed by integration degree and cointegration tests to examine the alignment of integration levels among the variables. Once these prerequisites are met, the ECM estimation is performed.

The dependent variable in this study is MSME credit disbursement by BPD, while the independent variables include CAR, CCR, ROA, BOPO, and LAR. The research also conducts classical assumption testing such as multicollinearity, heteroskedasticity, autocorrelation, normality, and linearity tests to ensure the validity of the regression results. In the ECM model, the long-term relationship is formulated using the natural logarithm of MSME credit against the logarithm of financial ratios, while the short-term relationship is modeled as the logarithmic change between periods, accompanied by the Error Correction Term (ECT) to adjust for long-term disequilibrium.

Through this approach, the study is expected to provide a more comprehensive picture of how BPD's internal financial conditions significantly influence MSME credit disbursement, particularly in sectors that support the Blue and Green Economy agenda. Consequently, the research findings may serve as valuable policy input for local governments and banking authorities in promoting the active role of BPD in supporting MSME growth.

RESULTS AND DISCUSSION

1. Long-Term Effects of Financial Ratios on MSME Credit

a) Capital Adequacy Ratio (CAR)

In the long term, the Capital Adequacy Ratio (CAR) has a positive and significant effect on MSME credit distribution. With a coefficient of 0.017359 and a probability value of 0.0041, the results indicate that a 1% increase in CAR leads to a 0.017359% increase in MSME credit. This finding supports Maharani's (2011) theory, which states that a higher CAR reflects a stronger bank position due to its ability to cover asset risks with available equity. The studies by Martin (2014) and Arisandi (2015) also reinforce this result, confirming a positive correlation between CAR and MSME credit expansion.

b) Capital to Credit Ratio (CCR)

CCR exhibits a negative and significant impact on MSME credit in the long run, with a coefficient of -0.022566 and a probability of 0.0008. This suggests that a 1% increase in CCR results in a 0.022566% decrease in MSME credit. This indicates that BPD banks have not effectively utilized their capital to boost credit, especially in areas with sustainable economic potential such as the Blue and Green Economy sectors.

c) Return on Assets (ROA)

ROA shows a negative and significant influence on MSME credit in the long term, with a coefficient of -0.089549 and a probability of 0.0000. This means that a 1% increase in ROA reduces MSME credit by 0.089549%. The high ROA has not served as an incentive for BPD banks to expand MSME credit, possibly due to the lack of specialization in low-risk, high-yield lending sectors. This is supported by findings from Cahyadi (2012) and Pratiwi (2012).

d) Operating Expenses to Operating Income (BOPO)

BOPO has a negative and significant impact on MSME lending, with a coefficient of -0.005109 and a probability of 0.0007. A 1% increase in BOPO leads to a 0.005109% decrease in MSME credit. This reflects poor operational efficiency, which reduces credit distribution, particularly in environmentally sustainable economic sectors that require efficient financial approaches.

e) Loan to Asset Ratio (LAR)

LAR also has a negative and significant long-term effect, with a coefficient of -0.004942 and a probability of 0.0000. This means a 1% increase in LAR decreases MSME credit by 0.004942%. This condition is due to the passive nature of fund placement mechanisms between BPD and local governments, where funds are not optimally allocated to productive sectors such as investment or working capital credit (Rokhim, 2012).

2. Short-Term Effects of Financial Ratios on MSME Credit

a) Capital Adequacy Ratio (CAR)

In the short term, CAR has a negative but insignificant effect on MSME credit, with a coefficient of -0.004361 and a probability of 0.3401. This suggests that improved capital adequacy does not immediately translate into increased lending, as also noted by Tyastika (2013).

b) Capital to Credit Ratio (CCR)

CCR shows a positive but insignificant impact in the short run, with a coefficient of 0.000809 and a probability of 0.8704. This implies that capital quality improvements have not yet effectively accelerated MSME credit disbursement.

c) Return on Assets (ROA)

ROA continues to show a negative and significant effect, with a coefficient of -0.044184 and a probability of 0.0000. This suggests that short-term profits are prioritized for stakeholder obligations rather than being channeled into real sector lending for MSMEs.

d) Operating Expenses to Operating Income (BOPO)

BOPO has a negative and significant influence in the short term, with a coefficient of -0.003329 and a probability of 0.0015. High BOPO values reflect low efficiency, which in the short term fails to stimulate credit growth, especially in environmentally-based economic sectors.

e) Loan to Asset Ratio (LAR)

LAR exhibits a negative but insignificant short-term effect, with a coefficient of -0.000561 and a probability of 0.4872. This shows that BPD still struggles to effectively utilize liquidity reserves to support productive credit activities.

CONCLUSION

1. The Effect of Capital Adequacy Ratio (CAR)

In the long term, CAR has a positive and significant impact on MSME credit distribution by Regional Development Banks (BPD), particularly in supporting Local Government (Pemda) programs such as the People's Business Credit (KUR). The placement of government funds in BPD contributes to capital resilience and drives MSME financing growth in environmentally friendly and marine-based sectors. However, in the short term, CAR does not have a significant effect, as improvements in capitalization capacity are not immediately followed by accelerated credit disbursement to productive MSME sectors.

2. The Effect of Capital to Credit Ratio (CCR)

   In both the short and long term, CCR does not significantly affect MSME credit growth in BPD. This reflects that BPD's ability to manage and enhance capital optimally has yet to meet the sustainable banking standards expected by regulators such as Bank Indonesia and the Financial Services Authority (OJK). This becomes a particular challenge in developing green and blue economy-based MSME credit, which requires strong capital structure readiness.

3. The Effect of Return on Assets (ROA)

   ROA shows a negative and significant relationship with MSME credit distribution in both the short and long term. This indicates that despite BPD generating profits, such earnings have not sufficiently translated into support for the MSME sector—including in regions that uphold green and blue economy principles. BPD appears to prioritize profit allocation toward stakeholders rather than increasing financing for sustainable real sectors.

4. The Effect of Operating Expenses to Operating Income (BOPO)

   BOPO has a negative and significant influence on MSME credit distribution in Berau Regency, both in the short and long term. High operating costs reduce bank efficiency, directly impacting the bank's capacity to extend credit, including to small businesses in environmental and marine sectors. This condition underscores the importance of cost efficiency in supporting financing for local development priority sectors aligned with sustainability goals.

5. The Effect of Loan to Asset Ratio (LAR)

   In both the short and long term, LAR shows no significant impact on MSME credit growth. This finding suggests that fund allocation by BPD tends to be directed toward sectors perceived as more promising in terms of return on investment, rather than toward the MSME sector. Such a pattern poses a constraint to optimizing the potential of local economies based on blue and green ecosystems, which should ideally be prioritized in the regional economic development of Berau Regency.

REFERENCES

Adam, L. (2010). *The Role of SMEs in the Indonesia Industrialization*. Economic and Finance in Indonesia, 45(1), 15–30.

Andrianto, B. (2010). *Analisis Pengaruh Nilai Produksi, Nilai Investasi dan Jumlah UMKM Terhadap Produk Domestik Regional Bruto Provinsi Jawa Tengah*. Skripsi. Surakarta: Universitas Sebelas Maret.

Arisandi, L.W. (2015). *Pengaruh Kondisi Internal Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR) dan Non Performing Loan (NPL) pada Keputusan Pemberian Kredit di PT. Bank Rakyat Indonesia (Persero) Tbk Tahun 2004–2013*. Skripsi. Singaraja: Universitas Pendidikan Ganesha Indonesia.

Arsyad, L. (2008). *Ekonomi Pembangunan*. Yogyakarta: Sekolah Tinggi Ilmu Ekonomi YKPN.

Arum, P. (2012). *Analisis Pengaruh Beberapa Faktor Keuangan Bank Terhadap Jumlah Pemberian Kredit di Perbankan Indonesia*. Skripsi. Jakarta: Universitas Bina Nusantara.

Badan Pusat Statistik (BPS) Kabupaten Berau. (2023). *Laporan Statistik Ekonomi Kabupaten Berau: UMKM dan Sektor Blue-Green Economy. Tanjung Redeb: BPS Kabupaten Berau.*

Basuki, A.T. (2015). *Regresi dalam Penelitian Ekonomi dan Bisnis*. Sleman: Danisa Media.

Berger, A.N., & Udell, R. (2002). *Problem Loans and Cost Efficiency in Commercial Banks*. Journal of Banking and Finance, Vol. 21.

Dinas Koperasi dan UKM Kabupaten Berau. (2023). *Perkembangan Kredit UMKM dan Pemetaan Usaha di Wilayah Pesisir dan Pertanian.* Berau: Diskop UKM.

Firdaus, R., & Ariyanti, M. (2011). *Manajemen Perkreditan Bank Umum: Teori, Masalah, Kebijakan dan Aplikasinya* (Edisi 5). Bandung: Alfabeta.

Ghozali, I. (2001). *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.

Hasan, D. (1996). *Lembaga Jaminan Kebendaan bagi Tanah dan Benda Lain yang Melekat pada Tanah dalam Konsepsi Penerapan Azas Pemisahan Horizontal*. Bandung: PT Citra Aditya Bhakti.

Hasibuan, N. (1996). *Perkembangan Kredit Macet dan Permasalahannya*. Pengembangan Perbankan Institut Bankir Indonesia, No. 47, hlm. 23–41.

Kasmir. (2003). *Bank dan Lembaga Keuangan Lainnya*. Jakarta: PT Raja Grafindo Persada.

Kementerian Koordinator Bidang Ekonomi. (2014). *Kendala dan Tantangan Penyaluran Kredit Usaha Rakyat*. Makalah dipresentasikan pada Workshop Nasional mengenai KUR. Jakarta.

Kustiwi, I.A. 2024. "Accounting Information System (Ais): Integration of Artificial Intelligence and Management in Farm Tourism Kelompok Tani Elok Mekar Sari." DiE: Jurnal Ilmu Ekonomi Dan Manajemen 15(1):123–31. doi: 10.30996/die.v15i1.10634.

Kustiwi, I. A., Hwihanus, H. 2023. Sistem Informasi Akuntansi Dari Sisi Audit Internal. JPEKBM (Jurnal Pendidikan Ekonomi, Kewirausahaan, Bisnis, dan Manajemen, Vol 7, No 2.

Maddala, G.S. (1992). *Introduction to Econometrics* (2nd Ed.). New York: Macmillan Publishing Company.

Martin, L.E. (2014). *Pengaruh CAR, LDR, NPL, ROA, NIM, dan BOPO Terhadap Pemberian Kredit (Studi Kasus pada PD. BPR BKK Pati Kota Periode 2007–2012)*. Skripsi. Semarang: Universitas Diponegoro.

Nugroho, Y.A. (2011). *Olah Data dengan SPSS*. Yogyakarta: Skripta Media.

Otoritas Jasa Keuangan. (2016). *Statistik Perbankan Indonesia*. Diakses dari: http://www.ojk.go.id/SPI (21 Februari 2016, pk 01.00 WIB).

Pohan, A. (2008). *Potret Kebijakan Moneter Indonesia*. Jakarta: PT Rajagrafindo Persada.

Sunarsip. (2008). *Memperkuat Kinerja Perusahaan Pertambangan*. Diakses dari: www.google.com.

Tejasari, M. (2011). *Peranan Sektor Usaha Kecil Menengah dalam Penyerapan Tenaga Kerja dan Pertumbuhan Ekonomi di Indonesia*. Skripsi. Bogor: Institut Pertanian Bogor.

TNP2K. (2015). *Program Kredit Usaha Rakyat (KUR) sebagai Alat Pendorong Pengembangan UMKM di Indonesia*. Jakarta: P2E-LIPI.

Triasdini, H. (2010). *Pengaruh CAR, NPL, ROA terhadap Penyaluran Kredit Modal Kerja*. Skripsi. Semarang: Universitas Diponegoro.

Tyastika, M. (2013). *Analisis Pengaruh Variabel Kinerja Mikroekonomi dan Makroekonomi Terhadap Penyaluran Kredit Pertanian (Studi Kasus Bank Pembangunan Daerah di Indonesia)*. Tesis. Bogor: Institut Pertanian Bogor.

Wijayanti, D.R. (2015). *Analisis Pengaruh Kinerja Keuangan Bank terhadap Penyaluran Kredit (Studi Kasus Bank Perkreditan Rakyat Jawa Timur)*. Skripsi. Malang: Universitas Brawijaya.