International Journal of
Economics Development Research, Volume 4(3), 2023
pp. 1298-1307

Study of Regional Development Bank Performance and Regional Economic Growth

Marsetyo Adi Nugroho[1], Rr. Iramani[2]

Abstract:

Economic growth is a serious concern for a region because it is a measuring tool to determine its economic condition and what policies must be taken. Many factors influence the increase in economic growth. In this study, the effect of regional development bank (BPD) performance was examined, namely related to lending, collection of third-party funds (DPK), and profitability on economic growth. The research method used was panel data regression. The results of this study show that only the variables of credit distribution have a positive and significant effect on economic growth. The results of this study are expected to be useful inputs for both local governments and BPD in increasing economic growth. This research implies that there is a need for positive collaboration and synergy between local governments and BPD, especially in terms of lending to the community which is expected to stimulate purchasing power, encourage trade and investment so that it can provide a multiplier effect on economic growth.

Keywords: *Economic Growth, Credit, BPD, Government, Multiplier Effect*

1. Introduction

Economic growth is one of the benchmarks for a region's achievements in measuring economic development from one period to the next. Sukirno (2011) states that economic growth is an increase in the production of several goods and services produced by increased economic activity so it is hoped that it can improve people's welfare. Based on this, economic growth is both a goal and an economic problem in the long term. Apart from being a comparison between regions, economic growth is also usually used as a measuring tool to determine economic conditions and is a serious concern for a region in determining its policies. The Indonesian economy during 2017-2022 experienced fluctuating growth. It can be seen that economic growth in Indonesia since 2017-2019 has experienced fluctuations, but in 2020 there was a very significant decline. This is inseparable from the COVID-19 pandemic that occurred that year which hit the entire world, disrupting the economy in all countries, including Indonesia. Based on region, the composition of the Indonesian economy is still dominated by the group of provinces on the island of Java with a role in the national economic growth of 56.48%, Sumatra at 22.04%, Kalimantan at 9.23% and the rest are other islands. This indicates that the center of Indonesia's economy is mostly located on the island of Java.

[1] *Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia,* marsetyoadinugroho@gmail.com
[2] *Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia,* iramani@perbanas.ac.id

Regional Development Bank commonly called BPD is a bank whose largest capital is owned by the regional government (Muda et al., 2016; Abidin et al., 2021). As we know, every year BPD provides dividends to regional governments which are one source of regional income. Apart from profitability provided in the form of dividends, other banking performance such as credit distribution and collecting third-party funds (DPK) are several factors for optimizing regional income which also have an impact. on economic growth directly or indirectly. Based on region, the performance of Regional Development Banks in terms of all indicators, including credit distribution, third-party fund collection, and profitability in 2022, will still be dominated by Regional Development Banks located on the island of Java, such as Bank BJB, Bank Jatim, Bank Jateng, Bank DKI. This is in line with economic contribution by region which also explains that Java Island is the region that has the largest economic dominance in Indonesia. In terms of its relation to the performance of regional development banks on economic growth, it can be directly related, as in research by Rahman and Chamelia (2015) which explains that lending and savings have an impact on economic growth. The existence of a link between variables in this research explains the relationship between economic growth and banking performance, especially BPD, which is thought to have an interconnected relationship where this link can provide an additional dimension to understanding the impact of the banking sector on regional economic development. The successful performance of BPD in providing appropriate financial support can provide important potential in efforts to encourage regional economic growth (Yadaruddin 2017).

Meanwhile, several previous studies such as Rafsanjani and Sukmana (2014), Ledhem and Mekidiche (2020), Rahman and Chamelia (2015), and others also discuss more about the influence of the performance of conventional or Sharia banks, while studies related to performance of Regional Development Banks are still ongoing. very limited and has not touched on aspects of its performance on regional economic growth.

Based on the existence of relationships such as those explained as well as gaps in previous research, this research study is necessary For done Because has the aim of confirming the relationship between banking performance, especially BPD, and regional economic growth so that it is hoped that apart from providing academic contributions, it can also provide useful input regarding economic policy for regional governments and BPD so that they can collaborate and synergize with each other in effective and efficient regional economic development for the public. In this research, the financial performance variables of Regional Development Banks are used, namely credit distribution, DPK collection and profitability, and Regional Economic Growth as dependent variables.

2. Theoretical Background

Economic growth

Economic growth is the growth of the economy's ability to produce goods and services. Economic growth can show how much economic productivity creates additional income for society in a certain period. Regional economic development is a situation where the regional government and the community jointly manage resources in the area and form a positive relationship model between the regional government and the private sector in growing new jobs to encourage regional economic development according to Sukirno (2011: 331). The economic growth of a region is measured by Gross Regional Domestic Product (GRDP). GRDP itself is divided into two, namely based on current prices (GRDP ADHB) and also based on constant prices (GRDP ADHK). According to the Badam Statistics Center, GRDP based on current prices describes the additional value of goods and services assessed based on current year prices, while GRDP based on constant prices shows the additional value of goods and services calculated at prices for a particular year by the specified year basis.

Credit Distribution and Its Effect on Economic Growth

As a financial intermediation institution, banking has the task of channeling funds from public savings, which can be in the form of working capital, investment, and consumption. Apart from distributing public funds, credit is also one of the bank's activities to gain profits, namely from the difference in interest between lending to the public and giving interest to third-party fund customers in the form of savings. The role of banking credit in economic growth is to increase demand for banking credit for consumption, working capital, and investment, stimulate purchasing power, encourage trade, and encourage further investment, especially direct investment. This process provides *a multiplier effect* on economic growth at regional and national levels. This is in line with research by Kornita and Meyes (2010); Rafsanjani and Sukmana (2014); Rahman and Chamelia (2015); Kapaya (2016); Yakubu and Abdallah (2021) prove that bank credit distribution significantly influences economic growth as well as the credit channel theory explained by Knut Wicksell where credit provided by banks to the public influences overall economic activity.

Hypothesis 1: Bank credit distribution has a significant positive effect on Economic Growth

Collection of Third-Party Funds (DPK) and Its Effect on Economic Growth

DPK collection is a source of money collected by banks from the public in the form of current accounts, savings, and time deposits. By collecting these funds, banks can obtain banking services, one of which is in the form of loans. Robert Solow in the theory says that the higher level of savings, increasingly high capital and output. Solow also has an opinion that a growth economy is a bunch involving activities _ four main, humans, capital accumulation, modern technology, and production. Another theory also explained by Hirschman states that it is related to the role of banks in accelerating economic growth by collecting public funds and distributing credit to sectors in need. Research that is still related to savings/savings was also revealed by Rahman and Chamelia (2015); Kapaya (2017) and Yakubu and Abdallah (2021) also define that bank third-party funds have a significant positive relationship with economic growth. The correlation between these various opinions is that the more people save in banks the more capital people have at some point in time which can be used for investment and consumption which will later encourage economic growth. Based on this theory and research, it can be assumed that public savings, or what is usually called collecting third-party funds is one of the factors that influences economic growth.

Hypothesis 2: Bank DPK collection has a significant positive effect on Economic Growth

Profitability and its Effect on Economic Growth

Profitability is one of the indicators used to measure the performance of a company. Measuring profitability has benefits and objectives not only for the business owner and management but also for stakeholders and shareholders outside the company, namely parties who have a relationship or interest in the company. Regional Development Banks, as banks whose capital is mostly owned by regional governments, of course, have a direct role in providing regional governments with dividends which are the result of the bank's profitability, thereby increasing regional income which is of course used in development and has an impact on economic growth. This is in line with Raymond F. Mikesell's theory which defines that a more profitable bank will have a greater ability to provide DPK, which as a result will accelerate economic growth. Also in line with research by Ledhem and Mekidiche (2020) define that the factor of banking financial performance that influences endogenous economic growth is profitability, namely Return On Equity (ROE). Based on this theory and research, it can be assumed that bank profitability is one of the factors that influences economic growth.

Hypothesis 3: Bank profitability has a significant positive effect on economic growth

3. Methodology

This research is non-experimental research with an explanatory type of design because it explains the influence of the independent variable on the dependent variable. Based on the research objectives, this research is quantitative. Sarmanu (2019) defines the type of research as being divided into two based on whether or not there is treatment of the unit under study, namely experimental and non-experimental research. Apart from that, he also defines quantitative research as research that aims to test theories that have been valid so far whether they are right or wrong. Based on time, this research includes research using panel data, namely a combination of cross-section and time series data where the data used is a collection of several regional development banks over several periods determined by the researcher. This research is limited to data on credit distribution, deposits collected, ROE ratios of 20 Regional Development Banks in Indonesia, and GRDP of each BPD region in the period 2017 to 2022 which meets the criteria in Problem Limitations. This research is quantitative and the data used is secondary data. This data is obtained and collected from annual bank financial reports, the Ministry of Finance, and the Central Statistics Agency. The data analysis techniques used include descriptive analysis and Multiple Regression Analysis (MRA) for panel data processed using E-views software. In processing panel data regression, Basuki and Prawoto (2016:276) define that there are three tests used to select the best model for panel data regression, namely the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test. After getting the best model, it is necessary to test the hypothesis and get the coefficient of determination.

In this research, there are 3 (three) independent variables and 1 (one) dependent variable. As an independent variable, researchers use banking performance which consists of lending, collecting third-party funds and profitability (ROE). As for the dependent variable, researchers used economic growth (GRDP ADHK). Based on the framework of thought and analysis techniques used, the following structural equation model is obtained:

$$Yit = \beta\ 0 + \beta\ 11.X1it + \beta\ 12.X2it + \beta\ 13.X3it + €I;$$

Information:

Yit : Provincial Economic Growth i year t
β 0 : Constant
β 11- β 23 : Regression coefficient and path of the independent variable to the dependent variable
X1it : BPD credit distribution i year t
X2it : Collection of Third-Party Funds BPD i year t
X3it : BPD profitability i year t
t : Time series data (2018-2022)
i : Cross Section (20 Provinces in Indonesia)
€I : Error Coefficient

4. Empirical Findings/Result

Descriptive statistics

The data that has been determined to be the sample consists of research variables including BPD Credit Distribution, BPD Third Party Fund Collection (DPK), BPD Profitability and Economic Growth of the BPD's region of origin, so a descriptive analysis is carried out to provide an overview of the research data based on the variables used. The resulting analysis results include the minimum, maximum, mean, and standard deviation of each research variable which is shown in the following table:

Table 1. Results from Descriptive Statistics

Variable	N	*Minimum*	*Maximum*	*Mean*	Std Deviation
Credit	100	-0.314	0.508	0.087	0.100
DPK	100	-0.538	0.797	0.116	0.158
Profitability	100	-0.550	1,281	-0.006	0.248
GRDP	100	-0.093	0.206	0.037	0.038

Based on the table above, the smallest credit distribution growth variable was obtained by Bank DKI in 2020, while the highest growth was also obtained by Bank DKI in 2021. In the DPK collection variable, the lowest growth was obtained by Bank Banten in 2020, while the highest growth was also obtained by Bank Banten in 2021. Profitability was obtained by Bank Banten in 2021, while the highest growth was also obtained by Bank Banten in the 2019 period. The lowest growth for economic growth was owned by Bali Province in 2020 while the highest growth was obtained by Central Sulawesi Province in 2018.

Model Selection

Based on the type of data used, this research uses panel data and data processing uses panel data regression analysis techniques. Before testing the hypothesis, it is necessary to select the best model. The method for selecting the best model uses the Chow test, Hausman test, and LM test. The best model test in this research is the Chow test followed by the Hausman test and LM test with the results shown in the following table:

Table 2. Results from Best Model Testing

Testing	Significant	Conclusion	Best Model	Advanced Steps
Test Chow	0.0192	Accept H1	*Fixed Effects* Model	Hausman Testing
Hausman test	0.2081	Reject H1	*Random Effect* Model	LM Testing
LM Test	0.1450	Reject H1	*Common Effect* Model	Multicollinearity & Heteroscedasticity Testing

Based on the table above, the first test carried out was the Chow test where the results obtained were a significance value of 0.0192 so it was less than 0.05 where the hypothesis test was to accept H 1 which means the best model used was the *Fixed Effect Model*. After getting these results, the Hausman test was continued, where the significance value obtained was 0.2081, so it was more than 0.05, where the hypothesis test was to reject H 1, which means the best model to use was the *Random Effect Model*. Because the results of testing the best model still did not find consistent results, it was continued with the last test, namely the LM test, where the results obtained were a significance value of 0.1450, so it was greater than 0.05, where the hypothesis test was to reject H 1, which means the best model to use was *Common Effects Mod*el. Based on these results, the *Common Effect Model* was finally used as the best model in testing the hypothesis of each structural equation but was previously tested assumption classic namely Multicollinearity and Heteroscedasticity. The results of the multicollinearity test showed that the correlation values were 0.20; 0.18 and -0.09 Where results the not enough from 0.8 so it can be concluded that there is no multicollinearity problem in the research variables. Meanwhile, in the heteroscedasticity test, the probability values for all variables have more value of 0.05 so it can be concluded that there were no symptoms of heteroscedasticity in this study. With these two results, the classical assumption test has been fulfilled.

Hypothesis Testing Results

After obtaining the best model, namely *Common Effect*, the next step is to test the hypothesis for each structural equation. Testing the hypothesis uses the F test, namely testing the influence simultaneously or together while looking at the R-square value of each model. Based on table 3, shows that the calculated F value is 5.421, while the F table value is 2.700, which means the calculated F value is > F Table and the significant value of the F test is 0.001, which means the significant value is <0.05 so Accept H1 which can be concluded that simultaneously or together. Likewise, the variables of credit, deposits, and profitability influence economic growth. Apart from that, it can be seen that the R-Square value is 0.118 or 11.8%. This shows that the percentage influence of the credit, deposit, and profitability variables on the economic growth variable is only 11.8%, while the remaining 88.2% is influenced by other variables not included in the research. Testing continues with partial hypothesis testing using the t-test, the results of which are shown in the following table:

Table 3. Regression Model Testing Results

Variable	Coefficient	t count	Sign	Conclusion
Credit	0.138	3,645	0.0004	Accept H1
DPK	0.014	0.616	0.5391	Reject H2

Profitability	0.003	0.251	0.8023	Reject H3
Fcount=5.421	Sign F=0.001		Rsquared =	0.1181

Based on the table above, it is known that the significance value of the credit variable (0.0004) < 0.05 and the calculated t value (3.645) > t table (1.660) so that Ho is rejected, which means the credit variable has a positive and significant influence on economic growth. The results of this research also confirm that the first hypothesis point a is appropriate, indicating that the higher the distribution of regional development bank credit, the higher the economic growth in the area. The higher the distribution of credit to both the productive and consumptive sectors, the more multiplier effect it will have on the economy of a region. The significance value of the DPK variable (0.5391) > 0.05 and the calculated t value (0.616) < t table (1.660) so that Ho is accepted, which means the variable DPK does not have a positive and significant influence on economic growth. The significance value of the profitability variable (0.8023) > 0.05 and the calculated t value (0.251) < t table (1.660) so that Ho is accepted, which means the profitability variable does not have a positive and significant influence on economic growth.

Effect of Credit Distribution and Economic Growth

In this study, the results of testing the first hypothesis equation show that credit distribution has a significant positive effect on economic growth, which indicates that the higher the credit distribution of regional development banks, the higher the economic growth in that area. The higher the distribution of credit, both in the productive and consumptive sectors, *the multiplier effect will* be on the economy of a region in the form of increasing purchasing power, encouraging trade, and encouraging investment. This shows harmony with previous research, namely Kornita and Meyes (2010); Rafsanjani and Sukmana (2014); Rahman and Chamelia (2015); Kapaya (2016); Yakubu and Abdallah (2021) prove that the distribution of bank credit to the private sector significantly influences economic growth and is following the credit channel theory by Knut Wicksell which explains that the distribution of credit provided by banks to the public influences overall economic activity. Based on this suitability, regional development bank credit distribution influences regional economic growth.

The Effect of Collecting Third-Party Funds and Economic Growth

In this study, the results of testing the second hypothesis equation show that the collection of third-party bank funds has a positive and insignificant effect on economic growth. When compared with previous research by Rahman and Chamelia (2015); Kapaya (2017) and Yakubu and Abdallah (2021) define that bank third-party funds have a significant positive relationship with economic growth. The discrepancy between this research and previous research is because the growth and nominal DPK of regional development banks are not very significant compared to the growth of DPK from national banks and the dependence of regional development banks on local regional government funds and also deposits with high-interest can result in these funds not having a direct impact and being less effective on increasing regional production or income. Based on this discrepancy, the DPK collection of regional development banks does not affect regional economic growth.

Influence of Profitability and Economic Growth

In this research, the results of testing the third hypothesis equation show that bank profitability has a positive and insignificant effect on economic growth. When compared with previous research by Ledhem and Mekidiche (2020) which defines that the factor of banking financial performance that influences endogenous economic growth is profitability. The discrepancy between this research and previous research is that not all profits earned by BPD are reallocated into loans to sectors that support economic growth. Funds can be used for dividend payments, reserves, or investments outside sectors that have a direct impact on economic growth (Buchori 2014). Apart from that, the dividends paid by BPD to regional governments, especially provincial regional governments which are the sample from this research, have also been distributed to each regional government, both city/district, so that BPD profitability does not have a direct impact on regional economic growth. Based on this discrepancy, the profitability of regional development banks does not affect regional economic growth

5. Conclusions

Based on the results of this research study, the following conclusions were obtained. Bank credit distribution has a positive and significant effect on economic growth. The higher the distribution of regional development bank credit, the higher the economic growth in the area. Meanwhile, third-party fund collection and profitability have a positive and insignificant influence on regional economic growth. Based on the research results, the implication in this research is that local governments need to pay attention to important factors in increasing economic growth which have been tested in this research. These factors are related to the distribution of regional development bank credit. Credit distribution must be given optimally, precisely, and of good quality. For this to be achieved, special strategies are needed, including collaboration and synergy between the government and its ecosystem and regional development banks related to optimizing credit distribution for government investment, programs for MSMEs, and the needs of their employees. Other programs include the need for digitalization of banking in the credit process so that it can make it easier for banks to reach the public without problems of distance and time, effective credit risk management, providing massive banking financial literacy, especially credit, to the public and many other strategies related to credit distribution.

Based on the research results, the limitations found in the research include the first, namely that the results of the coefficient of determination test, $\boldsymbol{R}^2$both simultaneously and for each structural equation, show a value of less than 40 percent. This shows that there are still many influences of other variables that have not been explained in this research. The next limitation is that the sample in this study is only limited to Regional Development Banks in Indonesia. Based on the results and limitations of this research, the following suggestions can be used as references for future researchers and for managers, among others, first of all, further researchers are advised to add other variables, both related to economic factors and others, which can explain their influence on economic growth strongly. Apart from that, future researchers can conduct research with a national scope related to banking performance and national economic growth. Another suggestion is that future researchers can conduct more specific research regarding the effect of credit based on its type on economic growth and local revenue. For managers, especially regional governments, Regional Governments should synergize and collaborate with Regional Development Banks, one of which is in financial management and regional tax payment systems that utilize banking technology to make things easier for the community so that this is expected to have a positive impact on optimizing regional income which is expected to be able to impact on economic growth. Apart from that, which is no less important, the Regional Government is expected to be able to collaborate more with regional development banks, especially related to capital financing for business actors, MSME, as well as those related to regional development investment so that it is hoped that it can increase economic activity and public consumption so that it can have a positive impact on income. native to the region as well as economic growth.

References:

Abidin, Z., Prabantarikso, R. M., Wardhani, R. A., & Endri, E. (2021). Analysis of bank efficiency between conventional banks and regional development banks in Indonesia. *The Journal of Asian Finance, Economics and Business*, *8*(1), 741-750.

Basuki, A. T. (2017). *Analisis Regresi Dalam Penelitian Ekonomi Dan Bisnis*. Rajagrafindo Persada, Depok

Buchory, H. A. (2014). Analysis of the effect of capital, credit risk and profitability to implementation banking intermediation function (Study on regional development bank all over Indonesia year 2012). *International Journal of Business, Economics and Law*, *4*(1), 133-144.

Ghozali, Imam (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25.* Edisi 9. Semarang: Badan Penerbit Universitas Diponegoro.

Kapaya, S. M. (2021). Financial development and economic growth in Tanzania: an ARDL and bound testing approach. *Asian Journal of Economics and Banking*, 5(1). https://doi.org/10.1108/ajeb-09-2020-0063

Kornita, S. E., & Mayes, A. (2010). Analisis Peran Perbankan Dalam Perekonomian Di Kabupaten Siak. *Ekonomi,* 18.

Ledhem, M. A., & Mekidiche, M. (2020). Economic growth and financial performance of Islamic banks: a CAMELS approach. *Islamic Economic Studies,* 28(1). https://doi.org/10.1108/ies-05-2020-0016

Muda, I., Dharsuky, A., Sadalia, I., & Siregar, H. S. (2016). Impact of capital investments and cash dividend policy on Regional Development Bank (BPD) PT. Bank Sumut to the district own source revenue and economic growth.

Rafsanjani, H., & Sukmana, R. (2014). Pengaruh Perbankan Atas Pertumbuhan Ekonomi : Studi Kasus Bank Konvensional dan Bank Syariah di Indonesia. *Jurnal Aplikasi Manajemen (JAM),* 12(September).

Rahman, Y. A., & Chamelia, A. L. (2015). Faktor - faktor yang mempengaruhi PDRB Kabupaten / Kota Jawa Tengah Tahun 2008-2012. *Jejak*, 8(1). https://doi.org/10.15294/jejak.v8i1.3857

Ratag, M. C., Kumenaung, A. G., & Rotinsuli, T. O. (2023). Pengaruh Profitabilitas, Efisiensi, Jumlah Kredit Dan Penyertaan Modal Bank Sulutgo Terhadap Pendapatan Asli Daerah Provinsi Sulawesi Utara. *Jurnal Pembangunan Ekonomi Dan Keuangan Daerah,* 24(1), 48-63.

Riyadi, Selamet (2006). *Banking Assets And Liability Management*, Edisi Keempat, Lembaga Penerbit Fakultas Ekonomi & Bisnis, Universitas Indonesia

Rizky, D. A. (2022). Analisis faktor yang mempengaruhi PDRB Provinsi JawaTengah Tahun 1990–2021. *Jurnal Economina*, 1(3). https://doi.org/10.55681/economina.v1i3.155

Sarmanu (2019). *Dasar Metodologi Penelitian Kuantitatif, Kualitattif dan Statistika.* Edisi Ketiga. Surabaya: Airlangga University Press

Srisinto, S. (2018). Memacu Pertumbuhan Ekonomi Di Propinsi Jawa Tengah Melalui Peningkatan Kunjungan Wisatawan Dengan Jumlah Hotel Dan Pendapatan Asli Daerah Sebagai Variabel Intervening. *ProBank*, 3(2). https://doi.org/10.36587/probank.v3i2.377

Sukirno, S. (2011). *Makro Ekonomi Teori Pengantar*. Edisi Kedua. Bandung: Alfabeta.

Tri Basuki, A, dan Prawoto, N. (2016). *Analisis Regresi dalam Penelitian Ekonomi dan Bisnis.* Jakarta: PT. Raja Grafindo Persada.

Yudaruddin, R. (2017). The impact of economic conditions on bank profitability of regional development bank in Indonesia. *International Journal of Applied Business and Economic Research*, *15*(19), 1-12.

Yakubu, I. N., & Abdallah, I. (2021). Modelling the financial intermediation function of banks and economic growth in sub-Saharan Africa. *Journal of Money and Business,* 1(1). https://doi.org/10.1108/jmb-04-2021-0005