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Analysis Of The Impact Of The Demographic Dividend On Economic Growth In 15 Provinces In Indonesia, 2015–2024

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Abstract

This study aims to analyze the effect of the demographic dividend, represented by the dependency ratio, on economic growth while considering the roles of the employed population, domestic investment (PMDN), and Internet users within an integrated analytical model. A quantitative descriptive approach was employed using panel data from 15 Indonesian provinces covering the 2015–2024 period. The data were estimated using the Fixed Effect Model (FEM) with the Partial Adjustment Model (PAM), incorporating the lagged dependent variable, Ln_PE(-1), to address autocorrelation. The results indicate that previous-period economic growth, the employed population, Internet users, and the interaction between the demographic dividend and the employed population have positive and significant effects on economic growth. In contrast, the demographic dividend and domestic investment do not have significant partial effects. The estimated model explains 99.98% of the variation in economic growth across the provinces (Adjusted R^2 = 0.999887). These findings suggest that the benefits of the demographic dividend can only be realized when supported by adequate employment opportunities. Therefore, the government should expand employment opportunities and improve the quality of human resources.

Keywords: Economic Growth, Demographic Dividend, Labor Force, Domestic Investment, Internet Users, Indonesia, Panel Data

INTRODUCTION

Economic development is a country's effort to increase economic activity and improve the standard of living of its population, as reflected in economic growth, which

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serves as the primary indicator. According to the Solow Growth Theory, economic growth is driven by capital accumulation, labor force growth, and technological progress, all of which interact to increase economic output (Todaro & Smith, 2020). One of the key factors contributing to economic growth is the participation of the working-age population, as this group can enhance the labor force, savings, and investment (Bloom et al., 2003). However, rapid population growth that is not accompanied by adequate employment opportunities may instead lead to higher unemployment and poverty (Tumaleno & Riazis, 2022).

Indonesia is the country with the fourth-largest population in the world after India, China, and the United States. According to BPS Indonesia (2024), the country's population reached 281.6 million, of which 76.23% were of working age. This situation places Indonesia in the demographic dividend phase, which is predicted to last until 2030 (Satyahadewi et al., 2023). A demographic dividend is a condition in which the population structure is dominated by the working-age population (15–64 years) rather than the non-working-age population (0–14 years and 65 years and older). According to the Theory of Demographic Transition, this condition occurs as a consequence of declining birth and death rates, resulting in a low dependency ratio (Notestein, 1945).

The demographic dividend opens a windows of opportunity for accelerating economic growth, but its benefits do not materialize automatically. A country can only reap the benefits of the demographic dividend if it is supported by sufficient job opportunities, investment in education, and adequate healthcare (Achmad et al., 2024; Melo et al., 2024). The demographic dividend in a region can be assessed using the most commonly used indicator, namely the dependency ratio. The dependency ratio is the ratio of the non-working-age population to the working-age population (Rostiana & Rodesbi, 2020). The lower the dependency ratio, the smaller the burden borne by the working-age population (Statistik, 2025).

Nationally, Indonesia has been in the demographic dividend phase since 2012, but conditions vary by region. The provinces of DKI Jakarta, East Kalimantan, Central Kalimantan, East Java, Bali, the Bangka Belitung Islands, Banten, West Java, the Special Region of Yogyakarta, Jambi, Central Java, Gorontalo, North Sulawesi, North Kalimantan, and the Riau Islands have low dependency ratio, while eastern Indonesia, including East Nusa Tenggara and several provinces in Sulawesi still has high dependency ratios. The decline in the dependency ratio is influenced by the success of family planning programs and increased economic development (Panggabean, 2020). These demographic conditions present a significant opportunity for the 15 provinces to

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drive economic growth through an abundant labor force. However, the economic performance of these fifteen provinces during 2015–2024 still shown a fluctuating trend, indicating that the successful utilization of the demographic dividend is determined not only by a low dependency ratio but also by other factors.

According to Solow, only the actively employed labor force is a factor of production that can directly drive economic growth. The size of the working population not only drives economic growth but also plays a role in increasing income and breaking the cycle of poverty (Arguntara & Sudibia, 2021). Thus, the size of the working population helps determine a region's production capacity. Additionally, Domestic Investment (PMDN) also influences economic growth by serving as both a source of financing and a vehicle for technology transfer, which creates jobs and drives economic growth (Simangunsong & Barika, 2025). On the other hand, internet users also have an equally important influence. Although, according to Solow, technological progress is an exogenous factor, the expansion of internet users boosts productivity and economic output, as the internet offers rapid access to information, communication, and digital services.(Kusuma et al., 2024).

Previous studies have reported inconsistent findings regarding the relationship between the demographic dividend and economic growth. Wardani, (2024) found that reported that the demographic dividend, represented by dependency ratio, has a negative effect on economic growth. In contrast, (Permatasari & Himmati, 2022) found that the dependency ratio has a positive effect on economic growth. These inconsistent findings indicate that the impact of the demographic dividend on economic growth remains inconclusive and may vary depending on regional characteristics and development policies. Therefore, further empirical research is needed to provide a more comprehensive understanding of the relationship between the demographic dividend and economic growth.

Based on the above discussion, this study aims to analyze the effect of the demographic dividend, represented by the dependency ratio, on economic growth in 15 Indonesian provinces during the 2015–2024 period. In addition, it examines the roles of the employed population, domestic investment, and Internet users in supporting economic growth. Unlike previous studies, this research integrates demographic, labor, investment, and technology-related factors into a single panel data model and further examines the interaction between the demographic dividend and the employed population. This approach provides a more comprehensive understanding of how these factors jointly influence economic growth and offers updated empirical evidence to

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support policies aimed at maximizing the benefits of the demographic dividend in Indonesia.

METHODS

This study employed panel data regression, which combines time-series and cross-sectional data, to analyze data from 15 provinces in Indonesia over the 2015–2024 period. The data were obtained from the official publications of Statistics Indonesia (BPS) and the Indonesian Investment Coordinating Board (BKPM). The variables examined in this study include economic growth, the demographic dividend, the employed population, domestic investment, and Internet users. The panel data regression model is specified as follows:

$$Ln_PE_{it} = \beta_0 + \beta_1 Ln_PE(-1)_{it} + \beta_2 BD_{it} + \beta_3 Ln_working_{it} + \beta_4 Ln_PMDN_{it} + \beta_5 PI_{it} + \beta_6 BD^{*} Ln_working_{it} + \varepsilon it$$

Description:

Ln_PE	= Economic Growth
Ln_PE(-1)	= Economic Growth Rate for the Previous Period
BD	= Demographic dividend
Ln_Working	= Working Population
Ln_PMDN	= Domestic Investment
PI	= Internet Users
BD*Ln_Working	= The Relationship Between the Demographic Bonus and the Working Population
$\beta_1.\beta_2.\beta_3.\beta_4.\beta_5.\beta_6$	= Regression coefficients for independent variables
i	= Region
t	= Research Year Period
ε	= Error term

To determine the most appropriate panel data model, model specification tests were conducted, including Chow test, Hausman test, and Lagrange Multiplier test. These three tests were used to select the best model among the Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM) (Widarjono, 2018). To ensure that the regression model meets the Best Linear Unbiased Estimator (BLUE) criteria, classical assumption tests were performed, including tests for normality,

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multicollinearity, heteroscedasticity, and autocorrelation. Next, hypothesis testing was conducted using a partial test (t-test) and a simultaneous test (F-test), as well as a test of the coefficient of determination (R^2).

RESULTS

Model Selection Test

Chow Test

Table 1. Chow Test Results

Effect Test	Statistik	d.f	Prob.
Cross-Section F	6.364665	(14.115)	0.0000
Cross-section Chi-square	77.450033	14	0.0000

Source: Data analysis results from Eviews 2026

Based on the Chow test results, the probability value was 0.000, which is less than 0.05. Therefore, the null hypothesis (H_0) was rejected, indicating that the Fixed Effect Model (FEM) is the most appropriate model for the analysis.

Hausman Test

Table 2. Hausman Test Results

Test Summary	Chi-Sq. Statistik	Chi.Sq. d.f	Prob.
Cross-section Random	6.364665	(14.115)	0.0000

Source: Data analysis results from Eviews 2026

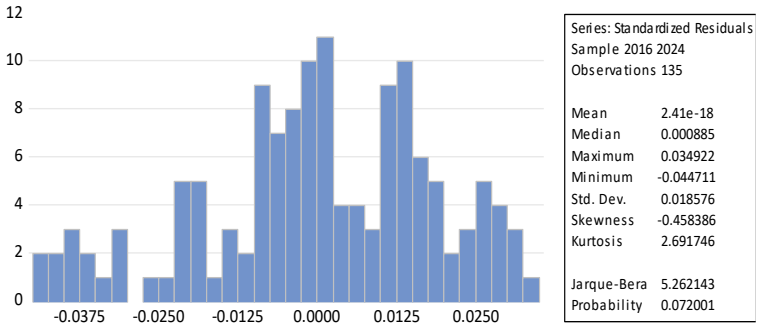
The Hausman test produced a probability value of 0.000 (< 0.05), indicating that the Fixed Effect Model (FEM) is the appropriate model. Since both the Chow and Hausman tests yielded probability values of 0.000, the FEM was selected as the best estimation model for this study.

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Classical Assumption Test

Normality Test Results



Source: Data analysis results from Eviews 2026

The normality test produced a Jarque–Bera probability value of 0.072001 (> 0.05), indicating that the residuals are normally distributed.

Multicollinearity Test Results

Table 3. Multicollinearity Test Results

Variabel	Coefficient Variance	Uncentered VIF	Cendered VIF
C	0.942955	1139.320	NA
Ln_PE(-1)	0.001415	263.6226	2.962950
BD	0.000274	661.7162	1.974792
Ln_Bekerja	0.001850	486.4930	3.647593
Ln_PMDN	0.001264	390.2725	3.343038
Pengguna Internet	4.62E-06	18.29097	2.071192

Source: Data analysis results from Eviews 2026

The multicollinearity test results showed that all independent variables had VIF values of < 10, indicating that the model is free from multicollinearity.

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Heteroskedasticity Test Results

Table 4. Heteroskedasticity Test Results

Variable	Coefficient	Std.Error	t-Statistic	Prob
C	0.317603	0.213788	1.485598	0.1401
Ln_PE(-1)	0.003251	0.012026	0.270295	0.7874
BD	3.00E-05	0.000345	0.087010	0.9308
Ln_Bekerja	-0.023783	0.012546	-1.895733	0.0605
Ln_PMDN	-0.000271	0.000888	-0.305735	0.7604
Pengguna Internet	5.19E-05	8.19E-05	0.583065	0.5610

Source: Data analysis results from Eviews 2026

The heteroskedasticity test results showed that all independent variables had probability values of > 0.05, indicating that the model is free from heteroskedasticity.

Autocorrelation Test Results

Table 5. Autocorrelation Test Results

Weighted Statistics			
R-squared	0.999904	Mean dependent var	14.70684
Adjusted R-squared	0.999887	S.D. dependent var	4.639285
S.E. of regression	0.020140	Sum squared resid	0.046241
F-statistic	59329.88	Durbin-Watson stat	1.716646
Prob(F-statistic)	0.000000		
Unweighted Statistics			
R-squared	0.999786	Mean dependent var	12.36824
Sum squared resid	0.049565	Durbin-Watson stat	1.533605

Source: Data analysis results from Eviews 2026

Based on the estimation results, the Durbin-Watson (DW) statistic was found to be 1.716646. This value falls within the range of 2, indicating that the model shows no autocorrelation. According to Basuki & Prawoto (2016), testing for autocorrelation in panel data analysis is not required.

Estimation Results

The final estimation in this study employed the Fixed Effect Model (FEM) with the Partial Adjustment Model (PAM) approach proposed by Nerlove (1958), incorporating the

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lagged dependent variable (Ln_PE(-1)) into the model. This approach was selected because economic growth is theoretically influenced by its previous-period conditions (persistence). In addition, the inclusion of Ln_PE(-1) helps address autocorrelation, thereby improving the accuracy of the t-test and F-test (Basuki & Prawoto, 2016; Gujarati & Porter, 2009).

Table 6. Estimation Results

Variable	Coefficient	Std.Error	t-statistik	Prob.
C	0.75975	0.90076	0.84345	0.4007
Ln_PE(-1)	0.63168	0.04537	13.9225	0.0000
BD	-0.01038	0.00694	-1.49516	0.1376
Ln_Bekerja	0.21590	0.05384	4.00993	0.0001
Ln_PMDN	0.00020	0.00296	0.07042	0.9440
Pengguna Internet	0.00206	0.00033	6.11318	0.0000
BD*Ln_Bekerja	0.00150	0.00050	3.00158	0.0033

Source: Data analysis results from Eviews 2026

Based on the estimation results, it was found that the variable Ln_PE(-1) has a positive and significant effect with a coefficient of 0.63168, meaning that a 1% increase in economic growth in the previous period will increase current economic growth by 0.6317%. The variable BD has a negative coefficient of -0.01038, but this is not significant because the p-value is greater than 0.05. The Ln_Bekerja variable has a positive and significant effect with a coefficient of 0.2159, meaning that a 1% increase in the working population will boost economic growth by 0.2159%. The PMDN variable has no effect on economic growth, as its probability value is > 0.05. Additionally, the internet users variable has a positive and significant effect with a coefficient of 0.0021, meaning that a 1% increase in the number of internet users will boost economic growth by 0.0021%. The interaction term BD*Ln_Bekerja has a positive and significant effect on economic growth with a coefficient of 0.00150. This means that a 1% increase in the BD*Ln_Bekerja interaction term will increase economic growth by 0.00150.

Hypothesis Testing

t-Test Results

Based on the estimation results, the variables Ln_PE(-1), Ln_Bekerja, Internet users (PI), and the interaction term BD*Ln_Bekerja had t-statistics greater than the critical

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t-value (1.9786) with probability values below 0.05, indicating a positive and significant partial effect on economic growth. In contrast, the demographic dividend (BD) and domestic investment (PMDN) had t-statistics lower than the critical t-value with probability values above 0.05, indicating that these variables had no significant effect on economic growth.

F-Test Results

Based on the estimation results with degrees of freedom (6, 128), the F-statistic was 59,329.88, exceeding the critical F-value of 2.17015, with a probability value of 0.000 < 0.05. These results indicate that Ln_PE(-1), the demographic dividend, the employed population, domestic investment, Internet users, and the interaction term BD*Ln_Bekerja jointly have a significant effect on economic growth in the 15 provinces during the 2015–2024 period.

Coefficient of Determination (R^2)

Based on the estimation results, the adjusted R-squared value was 0.999887, indicating that 99.98% of the variation in economic growth across the 15 provinces during the 2015–2024 period was explained by Ln_PE(-1), the demographic dividend, the employed population, domestic investment, Internet users, and the interaction term BD*Ln_Bekerja. The remaining 0.02% was explained by other factors outside the model.

DISCUSSION

The Effect of Previous-Period Economic Growth on Current Economic Growth (Ln_PE(-1))

The findings indicate that economic growth in the previous period (Ln_PE(-1)) has a positive and significant effect on economic growth during the observation period 2015–2024, with a coefficient of 0.631684 and a p-value of 0.0000. This finding indicates the persistence of economic growth, namely a situation where economic performance achieved in the previous period acts as a driving factor for sustained growth in the subsequent period. Economically, this can be explained by the fact that high economic growth generally reflects optimal levels of investment, household consumption and production, thereby forming a stronger economic foundation and creating momentum for further growth.

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The Effect of the Demographic Dividend on Economic Growth

The results of the analysis show that the demographic dividend, as represented by the dependency ratio, does not have a significant effect on economic growth during the 2015–2024 period. This indicates that neither an increase nor a decrease in the dependency burden has been statistically proven to affect economic growth in the 15 provinces studied. This condition is likely due to the relatively small and uniform variation in the dependency ratio across provinces, as indicated by a standard deviation of 2.366, meaning that inter-regional differences are not large enough to produce a statistically significant effect. Furthermore, the effect of the dependency ratio is not independent but is moderated by the size of the labor force in each province. These findings are consistent with those of (Nurhuda et al., 2023; Purwati & Prasetyanto, 2022), which found that the dependency ratio has no effect on economic growth. This is reinforced by (Isdari et al., 2025) findings, which state that the effect of the dependency ratio on economic growth is indirect but is influenced by other factors such as the quality of human capital and investment.

The Effect of the Working Population on Economic Growth

The working-age population has been shown to have a positive and significant impact on economic growth. This finding is consistent with Solow's growth theory, which identifies labor as the primary factor in the Cobb-Douglas production function; thus, an increase in the labor force drives an increase in output. The more people who are employed, the higher the public's income, which in turn drives consumption and investment. These findings are consistent with those of (Julianto & Mukhtar, 2022) who state that an increase in the number of working-age people in the workforce can boost production capacity and create new job opportunities. According to Arguntara & Sudibia (2021) an increase in the number of people in the workforce not only boosts economic output but also raises household income and breaks the cycle of poverty.

The Effect of Domestic Investment on Economic Growth

The results indicate that domestic investment (PMDN) had no statistically significant effect on economic growth across the 15 provinces. Although the effect was not statistically significant, the positive coefficient is consistent with neoclassical growth theory, which identifies capital accumulation as a key driver of economic growth. This finding may be attributed to the uneven distribution of domestic investment, which remains concentrated on Java Island, while other regions receive only a small share of

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total investment, limiting its contribution to economic growth. In addition, a less favorable investment climate may reduce the effectiveness of domestic investment in promoting economic growth. These findings are consistent with (Huda, 2022), who argued that the unequal distribution of investment limits its benefits to certain regions, as well as (Sabrina et al., 2024), who found that domestic investment is primarily directed toward capital-intensive sectors with limited employment absorption.

The Effect of Internet Users on Economic Growth

Internet users had a positive and significant effect on economic growth because the Internet serves as digital infrastructure that enhances economic efficiency and productivity. This finding is consistent with the Solow growth theory, which identifies technological progress as an exogenous driver of long-term productivity, and is supported by the widespread increase in Internet users across the 15 provinces. These findings are consistent with (Bardesi, 2020; Maisaroh et al., 2024), who reported that the expansion of Internet use improves productivity and economic efficiency. However, the findings differ from those of (Kumalasari & Aisyah, 2025), who found that Internet use may reduce economic growth when it is predominantly used for consumptive activities.

The Effect of the Interaction Between the Demographic Dividend and the Employed Population on Economic Growth

The interaction between the demographic dividend represented by the dependency ratio and the labor force has a positive and significant effect on economic growth. These findings indicate that although the dependency ratio directly constrains growth, when supported by a large working-age population, the dependency burden can be distributed across a larger workforce, thereby increasing production capacity and aggregate output and driving economic growth. This is consistent with the concept of the demographic dividend (Bloom et al., 2003) as well as the findings of (Bidisha et al., 2020), which state that the benefits of the demographic dividend depend on a region's ability to absorb the labor force, not merely on the size of its working-age population. In other words, the number of employed people acts as a moderating factor for the negative impact of the dependency ratio, transforming it into a driver of economic growth.

This finding serves as an important lesson for Indonesia, which is currently in the demographic dividend phase: the expansion of employment opportunities and the improvement of human capital quality must be prepared well in advance before the country enters the aging population phase. This is in line with Japan's experience, which

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successfully transformed the challenge of an aging population into a new economic opportunity through its silver demographic dividend policy which requires companies to retain employees up to age 70 for those who are still willing and able to work (Ogawa et al., 2021).

CONCLUSION

Based on the research findings, it can be concluded that Economic growth in the previous period (Ln_PE(-1)) has a positive and significant effect on economic growth, indicating a persistent pattern in which provinces with high growth in the previous period tend to be able to maintain it in the subsequent period. The demographic dividend (BD), represented by DR, does not have a significant effect on economic growth, due to the small and uniform variation in DR across provinces given that all provinces are currently in the demographic dividend phase as well as the fact that its impact depends on the size of the labor force. The number of employed people has a positive and significant effect on economic growth, consistent with Solow's theory, which positions labor as the primary factor in the Cobb-Douglas production function. Domestic Investment (PMDN) has no effect on economic growth due to the uneven distribution of investment, an investment climate that is not sufficiently conducive, and a tendency for investment to be concentrated in capital-intensive sectors.

Internet users (PI) have a positive and significant impact on economic growth through increased efficiency in economic activities, expanded market access, and structural transformation toward high-value sectors. The interaction between the demographic dividend and the working-age population has a positive and significant impact on economic growth, indicating that provinces with a large working-age population are able to transform the burden of the dependency ratio into a driving force for economic growth.

REFERENCES

Achmad, W., Nurwae, N., Fedryansyah, M., Widya, R., Sumadinata, S., Sie, R., & Sidiq, S. (2024). Taking Advantage Of Indonesia's Demographic Bonus In 2024: Challenges And OpportuniAes Memanfaatkan Bonus Demografi Indonesia Di Tahun 2024: Tantangan Dan Peluang. *Management Studies and Entrepreneurship Journal*, *5*(2), 4425–4434. http://journal.yrpipku.com/index.php/msej

Arguntara, I. K. A., & Sudibia, I. K. (2021). Pengaruh Investasi, Tingkat Pendidikan,

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Jumlah Penduduk Bekerja Terhadap Pertumbuhan Ekonomi Dan Kemiskinan Di Provinsi Bali. *E-Jurnal EP Unud*, 4950–4976.

Bardesi, H. J. (2020). *Measuring the Effect of the Internet on Economic Growth : The Case of Saudi Arabia*. *12*(12), 61–69. https://doi.org/10.5539/ijef.v12n12p61

Basuki, A. T., & Prawoto, N. (2016). Analisis Regresi Dalam Penelitian Ekonomi dan Bisnis. In *Ekonometrika*.

Bidisha, S. H., Abdullah, S. M., Siddiqua, S., & Mainul, M. (2020). *How Does Dependency Ratio Affect Economic Growth In the Long Run ? Evidence from Selected Asian Countries*. *54*(2).

Bloom, D. E., Canning, D., & Sevilla, J. (2003). *The Demographic*. http://www.rand.org/content/dam/rand/pubs/monograph_reports/2007/MR1274.pdf

BPS Indonesia, S. I. (2024). *Jumlah Penduduk Pertengahan Tahun (Ribu Jiwa), 2024*. 30 Juni 2025. https://www.bps.go.id/id/statistics-table/2/MTk3NSMy/jumlah-penduduk-pertengahan-tahun--ribu-jiwa-.html

Cuaresma, C. (2014). *Is the demographic dividend an education dividend ? Is the Demographic Dividend an Education Dividend ? 2014*, 299–315. https://doi.org/10.1007/s13524-013-0245-x

Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (Fifth).

Huda, N. (2022). *The Effect Of Foreign And Domestic Investment and Goverment Spending On Growth Central Kalimantan Province Economy 2015-2019*. *06*(02), 131–136.

Isdari, M. F., Saleh, S. E., & Dai, S. I. S. (2025). *Pengaruh Bonus Demografi Terhadap Pertumbuhan Ekonomi di Provinsi Gorontalo*. *3*(3), 674–678.

Julianto, D., & Mukhtar, R. (2022). Analisis Pengaruh Investasi dan Jumlah Penduduk Yang Bekerja Terhadap Pertumbuhan Ekonomi Sumatera Barat Tahun 2005-2020. *Jurnal Penelitian Dan Pengkajian Ilmiah Sosial Budaya*, *1*(1).

Kumalasari, D., & Aisyah, S. (2025). Era Digital : Pengaruh Inovasi Teknologi Terhadap Pertumbuhan Ekonomi di Indonesia. *Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi ISSN*, *9*, 835–843.

Kusuma, G. A., Putu, N., Setyari, W., Putu, N., Setyari, W., Method, S. C., Cahyadin, M., Ertimi, B. E., Sarmidi, T. T., Marriage, E., Development, H., In, I., & Kharisma, B. (2024). The Role of Economic Digitalization on Economic Performance in Indonesian. *Ekonomi Kuantitatif Terapan*, *17*(2).

Maisaroh, N., Habibi, A., & Iqbal, M. (2024). *Growth Trends of Internet Users and E-*

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commerce in Increasing Economic Growth in Indonesia. 41–50.

Melo, R. H., Lasulika, C. T., & Saleh, S. E. (2024). *Optimalisasi Bonus Demografi Melalui Kebijakan Kependudukan untuk Mendorong Pertumbuhan Ekonomi Indonesia*. *3*(2), 143–148.

Notestein, F. W. (1945). " Population - The Long View ". In T. W. Schultz (Ed.), *Food for the World*. University of Chicago Press.

Nurhuda, Syukri, M., Sari, I., & Hendra. (2023). Pengaruh Tenaga Kerja dan Dependency Ratio terhadap Pertumbuhan Ekonomi di Kabupaten Luwu Utara. *Jurnal Ekonomi Akuntansi*, *1*.

Ogawa, N., Mansor, N., Lee, S.-H., Abrigo, M. R. M., & Aris, T. (2021). Population Aging and the Three Demographic Dividends in Asia. *Asian Development Riview*, *38*(1), 32–67.

Panggabean, M. (2020). *Faktor-Faktor Yang Mempengaruhi Dependency Ratio di Indonesia*. 371–387.

Permatasari, N. I., & Himmati, R. (2022). Pengaruh Bonus Demografi Terhadap Pertumbuhan Ekonomi Jawa Timur. *SENTRI: Jurnal Riset Ilmiah*, *1*(2), 537–557. https://doi.org/10.55681/sentri.v1i2.256

Purwati, W. D., & Prasetyanto, P. K. (2022). Analisis Pengaruh Bonus Demografi Terhadap Pertumbuhan Ekonomi Di Indonesia. *Jurnal Economina*, *1*(3), 532–546. https://doi.org/10.55681/economina.v1i3.130

Rostiana, E., & Rodesbi, A. (2020). *Transisi Demografi dan Pertumbuhan Ekonomi Indonesia*. *April*. https://doi.org/10.21831/economia.v16i1.29846

Sabrina, T., Fatimah, S., Sriningsih, S., & Modal, B. (2024). *Analisis Pengaruh Alokasi Belanja Modal dan Investasi Terhadap Pertumbuhan Ekonomi Provinsi Nusa Tenggara Barat*. *3*(2), 117–126.

Sari, F. E., & Sumanto, A. (2021). *Pengaruh PMA dan PMDN terhadap penyerapan tenaga kerja pada sub sektor industri pengolahan Kabupaten Mojokerto*. *1*(10), 1011–1024. https://doi.org/10.17977/um066v1i102021p1011-1024

Satyahadewi, N., Amir, A., & Hendrianto, E. (2023). Proyeksi Peningkatan Perekonomian melalui Pemanfaatan Bonus Demografi 2040. *Kaganga:Jurnal Pendidikan Sejarah dan Riset Sosial Humaniora*, *6*(2), 715–725. https://doi.org/10.31539/kaganga.v6i2.7943

Simangunsong, N. A., & Barika. (2025). Analisis Investasi Dalam Pertumbuhan Ekonomi di Indonesia. *JIMEA | Jurnal Ilmiah MEA (Manajemen, Ekonomi, dan Akuntansi) Vol. 9 No. 1, 2025 ANALISIS*, *9*(1), 952–964.

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Statistik, B. P. (2025). *Rasio ketergantungan*. bps.go.id. https://sirusa.web.bps.go.id/metadata/indikator/55048

Todaro, M. P., & Smith, S. C. (2020). Economic Development. Thirteenth Edition. In *Pearson* (Nomor 13th Edition). https://www.mkm.ee/en/objectives-activities/economic-development

Tumaleno, A. F., & Riazis, K. R. (2022). Pengaruh Jumlah Penduduk Terhadap Produk Domestik Regional Bruto di Sulawesi Tenggara. *Arus Jurnal Sosial dan Humaniora*.

Wardani, N. A. (2024). Analisis Bonus Demografi Terhadap Pertumbuhan Ekonomi di Pulau Jawa. *Jurnal Ilmu Ekonomi JIE*, *8*(02), 144–151. https://doi.org/10.22219/jie.v8i02.31749

Widarjono, A. (2018). *Ekonometrika (Pengantar dan Aplikasinya Disertai Panduan EViews)* (5 (Kelima)). UPP STIM YKPN.

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