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Investment, Absorptive Capacity, and Regional Economic Growth: Explaining Heterogeneous Outcomes across Indonesian Provinces

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Abstract

Regional economic growth remains a central concern in development economics, particularly in countries characterized by spatial disparities such as Indonesia. This study examines the relationship between investment and regional economic growth through a structured review of empirical studies published between 2018 and 2025. The analysis synthesizes findings from provincial-level research employing various econometric approaches, including panel data models, regression analysis, and path analysis. The results indicate that investment—both domestic and foreign—generally exerts a positive effect on regional economic growth. However, the magnitude and significance of this effect vary across regions. Evidence suggests that investment effectiveness depends on complementary factors such as human capital quality, infrastructure availability, macroeconomic stability, and institutional capacity. In regions with limited absorptive capacity, investment does not automatically translate into sustained growth. These findings highlight that investment-driven growth is conditional and requires integrated development policies to achieve inclusive and balanced regional economic performance.

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1. Introduction

Regional economic growth remains a central issue in development economics, particularly in countries characterized by structural and spatial disparities such as Indonesia. Economic growth reflects the expansion of production capacity and serves as an indicator of development success in improving regional welfare. Macroeconomic and microeconomic conditions play an important role in shaping the ability of regions to respond to domestic and global economic challenges (Apriliansah & Suyatno, 2024). In an increasingly open economic system, regional economies are also exposed to global fluctuations, which can amplify disparities across provinces.

Investment is widely recognized as a key driver of economic growth through capital formation, expansion of productive capacity, and employment creation. Within the Harrod–Domar framework, capital accumulation increases output capacity and stimulates aggregate demand, thereby accelerating economic growth (Nurfifah et al., 2022). Similarly, neoclassical and endogenous growth perspectives emphasize the role of capital deepening and productivity enhancement in sustaining long-run growth.

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In the regional context, investment contributes to increases in Gross Regional Domestic Product (GRDP) and supports structural transformation.

Empirical evidence in Indonesia, however, presents heterogeneous findings. Several studies report a positive and significant relationship between investment and regional economic growth (Manullang et al., 2024; Oktaviani et al., 2024; Nurjannah et al., 2024). Other studies indicate that investment does not always produce a significant effect when analyzed independently, particularly in provinces with structural constraints (Rahmah et al., 2024; Safarida & Rahmawati, 2022). Furthermore, the effectiveness of investment is often influenced by complementary factors such as human capital quality, infrastructure availability, macroeconomic stability, and government expenditure (Kustanto, 2020; Yamani et al., 2025).

These mixed findings suggest that the relationship between investment and regional economic growth is conditional rather than automatic. Variations in absorptive capacity across regions may explain why similar levels of investment generate different growth outcomes. Regions with stronger institutional structures, better infrastructure, and higher levels of human development may benefit more from capital inflows compared to regions facing structural limitations.

Despite the growing body of empirical research, there remains limited synthesis that systematically evaluates the heterogeneity of findings across Indonesian provinces. Most studies focus on specific regions or short time horizons, which makes it difficult to draw comprehensive conclusions regarding the national pattern of investment-led growth. Therefore, this study aims to analyze the relationship between investment and regional economic growth by synthesizing empirical evidence from recent studies and identifying the structural factors that moderate this relationship.

By integrating theoretical perspectives on capital accumulation with empirical findings across regions, this study contributes to the literature by clarifying under what conditions investment effectively promotes regional economic growth in Indonesia. The findings are expected to provide insights for policymakers in designing investment strategies that are not only growth-oriented but also inclusive and regionally balanced.

2. Literature Review

Theoretical Foundation of Investment and Economic Growth

Investment plays a central role in economic growth theory through capital accumulation and productivity enhancement. Within the Harrod–Domar framework, economic growth depends on savings and investment rates, where capital formation increases productive capacity and stimulates aggregate demand (Nurfifah et al., 2022). In this perspective, insufficient investment limits output expansion and slows economic development.

Neoclassical growth theory further explains that capital deepening contributes to higher output levels, although diminishing returns may occur in the absence of technological progress. Endogenous growth theory extends this argument by emphasizing that investment in human capital, infrastructure, and innovation generates spillover effects that sustain long-run growth.

At the regional level, investment influences Gross Regional Domestic Product (GRDP) through expansion of industrial capacity, infrastructure development, and employment generation. However, the effectiveness of investment depends on complementary structural conditions such as institutional quality, infrastructure availability, and human capital (Kustanto, 2020).

Empirical Evidence on Investment and Regional Growth

Empirical studies in Indonesia present mixed results regarding the relationship between investment and regional economic growth.

Several studies report a positive and significant impact of investment on economic growth. Manullang et al. (2024) find that both foreign direct investment (FDI) and domestic investment significantly contribute to Indonesia's economic growth. Similar findings are reported in regional analyses such as Sumatera Barat (Oktaviani et al., 2024), Riau Province (Nurjannah et al., 2024), and provincial-level studies distinguishing western and eastern Indonesia (Suparta & Ridho Alfajar, 2025). Infrastructure investment also shows a positive contribution to growth in Java (Anggini et al., 2018).

Conversely, other studies indicate insignificant or conditional effects. In Jambi Province, foreign investment does not significantly affect economic growth when analyzed separately (Rahmah et al., 2024). Safarida and Rahmawati (2022) show that investment in Aceh has a positive but statistically insignificant effect on economic growth. Similarly, Sari (2021) finds that investment is positive but not significant in Kalimantan Utara, where human development plays a more dominant role.

These contrasting findings suggest that the growth effect of investment varies across provinces and depends on structural and institutional contexts.

Complementary Factors and Absorptive Capacity

Several studies emphasize that investment alone is insufficient to stimulate sustained economic growth. Instead, complementary variables moderate the relationship. Human capital, measured by the Human Development Index (HDI), consistently demonstrates a strong positive influence on regional growth (Kustanto, 2020; Fahrurrozi et al., 2023). Regions with higher human development levels tend to utilize investment more effectively.

Government expenditure and infrastructure are also important. Effendi et al. (2025) show that while investment positively affects growth, poorly managed government spending may generate negative effects. Yamani et al. (2025) highlight that infrastructure, labor quality, government expenditure, and inflation influence investment attractiveness, which subsequently affects economic growth.

Macroeconomic stability plays a role as well. Pitri et al. (2024) find that inflation negatively affects growth, while investment positively contributes in ASEAN countries. Zaharani and Nasir (2025) also report that inflation hampers economic growth in Indonesia. These findings indicate that regional absorptive capacity—defined as the ability of a region to transform capital inflows into productive output—determines whether investment leads to sustainable growth.

Regional Disparities and Heterogeneous Outcomes

Regional inequality remains a structural issue in Indonesia. Royan et al. (2019) show that economic growth may increase income inequality when not accompanied by equitable investment distribution. Studies comparing western and eastern Indonesia reveal significant disparities in investment effectiveness (Suparta & Ridho Alfajar, 2025).

Investment in infrastructure and strategic projects, such as the development of the new capital city (IKN), is expected to generate multiplier effects and reduce economic concentration (Maulana et al., 2025). However, policy design and sectoral targeting remain crucial to ensure balanced regional growth.

Research Gap

Although numerous studies examine investment and regional economic growth in Indonesia, most focus on specific provinces or short observation periods. There remains limited synthesis integrating empirical findings across regions while considering absorptive capacity as a moderating factor. Therefore, this study addresses the gap by systematically reviewing empirical evidence and explaining heterogeneous growth outcomes across Indonesian provinces.

Synthesis of Previous Studies

To provide a structured overview, the empirical findings from prior research are summarized at Table 1 and Figure 1.

Table 1. Summary of Empirical Studies on Investment and Regional Economic Growth in Indonesia

No	Author(s)	Year	Method	Main Finding
1	Manullang et al.	2024	OLS Regression	FDI and domestic investment positively affect growth
2	Oktaviani et al.	2024	Multiple Regression	Investment positive but not always significant
3	Rahmah et al.	2024	Panel Data	FDI insignificant in Jambi
4	Safarida & Rahmawati	2022	Path Analysis	Investment positive but insignificant in Aceh
5	Sari	2021	Multiple Regression	Investment insignificant; HDI significant
6	Suparta & Ridho Alfajar	2025	FEM Panel	Investment effective in Western Indonesia
7	Anggini et al.	2018	Panel Data	Infrastructure investment positive
8	Yamani et al.	2025	PLS Path Analysis	Infrastructure and labor affect investment and growth

Figure 1. Conceptual Framework of Investment and Regional Economic Growth

3. Methodology

Research Design

This study employs a structured literature review approach to examine the relationship between investment and regional economic growth in Indonesia. The review focuses on empirical studies that analyze the impact of investment—both Domestic Investment (PMDN) and Foreign Direct Investment (FDI)—on regional Gross Regional Domestic Product (GRDP).

The design is descriptive-analytical, aiming to synthesize empirical findings and identify patterns, consistencies, and divergences across regions. This approach is appropriate given the heterogeneous results reported in previous studies (Rahmah et al., 2024; Manullang et al., 2024; Safarida & Rahmawati, 2022).

Data Sources and Selection Criteria

The study relies exclusively on secondary data derived from published scientific articles. The inclusion criteria are as follows: Empirical research examining investment and economic growth, Regional or provincial-level analysis in Indonesia, published between 2018 and 2025, Indexed national accredited journals, Employing quantitative econometric methods.

Studies that are purely normative, legal analyses, or unrelated to regional growth were excluded (Saputro & Basyarudin, 2024 excluded if not empirical growth estimation). A total of 25 studies were selected, consistent with the references listed in the document.

Data Extraction and Classification

Each selected article was systematically coded based on: Type of investment (FDI, PMDN, infrastructure investment), Dependent variable (GRDP or economic growth rate), Estimation method (OLS, Multiple Regression, Panel Data FEM/REM, ARDL, Path Analysis, PAM), Statistical significance of investment coefficient, regional coverage. The classification process enables comparison across methodological approaches and geographical contexts.

Analytical Framework

Although this study does not estimate new econometric models, it synthesizes empirical findings grounded in standard growth regression frameworks commonly used in the reviewed studies.

Most empirical studies apply variations of the following baseline model:

$$GRDP_{it} = \alpha + \beta_1 INV_{it} + \beta_2 X_{it} + \varepsilon_{it}$$

Where:

$GRDP_{it}$= regional economic growth or GRDP of region i at time t

INV_{it}= investment (FDI and/or PMDN)

X_{it}= control variables (labor, HDI, inflation, government expenditure, exports)

ε_{it}= error term

Panel data studies frequently use the Fixed Effect Model (FEM) as shown in Suparta and Ridho Alfajar (2025) and Royan et al. (2019):

$$GRDP_{it} = \alpha_i + \beta_1 INV_{it} + \mu_{it}$$

Where $\alpha_i$captures unobserved regional heterogeneity.

Other approaches include: ARDL model (Pitri et al., 2024), Path Analysis / PLS (Yamani et al., 2025; Safarida & Rahmawati, 2022), Partial Adjustment Model (Pangestin et al., 2021).

3.5 Conceptual Model

Based on synthesis of previous studies, the conceptual structure guiding this review is illustrated below.

Figure 2. Conceptual Relationship between Investment and Regional Economic Growth

Investment (FDI & PMDN)
↓
Capital Formation & Sectoral Expansion
↓
Employment & Productivity Increase
↓
Regional Economic Growth (GRDP)

Moderating Variables:
- Human Capital (HDI) (Kustanto, 2020)
- Infrastructure (Anggini et al., 2018)
- Government Expenditure (Effendi et al., 2025)
- Inflation (Pitri et al., 2024; Zaharani & Nasir, 2025)
- Institutional and Investment Climate (Yamani et al., 2025)

Synthesis Strategy

The analytical process consists of three stages, Descriptive Mapping Identification of regions where investment shows positive, insignificant, or negative effects.

Comparative Analysis Comparison of results across: Western vs Eastern Indonesia (Suparta & Ridho Alfajar, 2025), Infrastructure-intensive vs non-infrastructure regions, High HDI vs low HDI provinces (Sari, 2021; Fahrurrozi et al., 2023)

Thematic Categorization Grouping findings into: Direct positive impact, Conditional impact, Insignificant or structurally constrained impact.

Research Validity and Limitations

This study ensures validity through systematic selection criteria and cross-study comparison. However, it does not conduct meta-regression or statistical aggregation of coefficients. Therefore, conclusions are interpretative rather than quantitatively pooled. Future research may apply meta-analysis techniques to estimate average investment elasticity across regions.

4. Results

Distribution of Empirical Findings

The review of 25 empirical studies reveals heterogeneous results regarding the impact of investment on regional economic growth in Indonesia.

The majority of studies report a positive and statistically significant effect of investment on economic growth. For instance, Manullang et al. (2024) find that both foreign direct investment (FDI) and domestic investment significantly contribute to national economic growth. Similar findings are reported in regional analyses such as Sumatera Barat (Oktaviani et al., 2024), Riau Province (Nurjannah et al., 2024), and provincial comparisons between Western and Eastern Indonesia (Suparta & Ridho Alfajar, 2025). Infrastructure investment also demonstrates a positive impact on growth in Java (Anggini et al., 2018).

However, several studies show insignificant or conditional effects. In Jambi Province, FDI does not significantly affect economic growth (Rahmah et al., 2024). Investment in Aceh is positive but statistically insignificant (Safarida & Rahmawati, 2022). In Kalimantan Utara, human development plays a more dominant role than investment (Sari, 2021).

These results confirm that the growth impact of investment varies across provinces and depends on structural conditions.

Econometric Model Patterns

Most reviewed studies estimate growth using variations of the following regression framework:

$$GRDP_{it} = \alpha + \beta_1 INV_{it} + \beta_2 X_{it} + \varepsilon_{it}$$

Where:

$GRDP_{it}$= regional economic growth

INV_{it}= investment (FDI and/or PMDN)

X_{it}= control variables (labor, HDI, inflation, exports, government expenditure)

ε_{it}= error term

Panel data approaches frequently apply Fixed Effect Models (FEM) (Suparta & Ridho Alfajar, 2025; Royan et al., 2019):

$$GRDP_{it} = \alpha_i + \beta_1 INV_{it} + \mu_{it}$$

ARDL models are used in ASEAN comparative research (Pitri et al., 2024), while Path Analysis and PLS are applied to examine mediating effects (Yamani et al., 2025; Safarida & Rahmawati, 2022).

Across methodologies, the coefficient β_1 is predominantly positive but not universally significant.

Regional Heterogeneity

The empirical findings reveal the presence of three distinct regional clusters in terms of investment effectiveness on regional economic growth. First, several regions demonstrate a strong and statistically significant positive impact of investment. These include Sumatera Utara (Sitorus et al., 2025), Riau (Nurjannah et al., 2024), and provinces in Java where infrastructure investment significantly promotes growth (Anggini et al., 2018). National-level analysis also confirms that both foreign and domestic investment positively contribute to economic growth (Manullang et al., 2024).

Second, some regions exhibit conditional investment effects, where the relationship is positive but not statistically robust or depends on supporting variables. In Jambi, investment—particularly foreign direct investment—does not significantly affect economic growth when examined independently (Rahmah et al., 2024). Similar patterns are observed in Kalimantan Utara (Sari, 2021) and Aceh (Safarida & Rahmawati, 2022), where human development and institutional factors appear more decisive than capital inflows alone.

Third, structural constraint regions are characterized by growth outcomes that depend heavily on complementary variables such as human capital (HDI), infrastructure quality, and macroeconomic stability. Studies by Kustanto (2020) and Yamani et al. (2025) emphasize that investment effectiveness is strongly moderated by these structural conditions. Moreover, comparative evidence indicates that Western Indonesia generally exhibits stronger investment elasticity than Eastern Indonesia, reflecting disparities in infrastructure readiness and economic integration (Suparta & Ridho Alfajar, 2025).

Role of Complementary Variables

Several complementary variables consistently emerge as significant moderators in the relationship between investment and regional economic growth. Human capital, commonly proxied by the Human Development Index (HDI), plays a crucial role in enhancing growth performance, as regions with higher levels of education, health, and purchasing power are better able to transform capital inflows into productive output (Kustanto, 2020; Fahrurrozi et al., 2023). Infrastructure investment also strengthens the positive impact of capital accumulation by improving connectivity, reducing transaction costs, and increasing production efficiency (Anggini et al., 2018). In addition, government expenditure demonstrates mixed effects; while it can stimulate growth when efficiently allocated, inefficient or mismanaged spending may generate negative outcomes (Effendi et al., 2025). Macroeconomic stability is equally important, as inflation consistently exhibits a negative effect on economic growth, reducing investment efficiency and overall economic performance (Pitri et al., 2024; Zaharani & Nasir, 2025). Collectively, these findings suggest that the effectiveness of investment in promoting regional economic growth is highly dependent on regional absorptive capacity and supporting structural conditions.

Summary of Empirical Classification

Table 2. Classification of Investment Impact on Regional Economic Growth

Impact Category	Number of Studies	Representative Authors
Positive & Significant	Majority	Manullang et al. (2024); Sitorus et al. (2025); Nurjannah et al. (2024)
Positive but Insignificant	Several	Safarida & Rahmawati (2022); Sari (2021)
Mixed/Conditional	Several	Rahmah et al. (2024); Yamani et al. (2025)
Moderated by Macroeconomic Factors	Several	Pitri et al. (2024); Zaharani & Nasir (2025)

Conceptual Result Synthesis

Figure 3. Empirical Outcome Mapping

Investment (FDI & PMDN)
↓
Positive Impact on Growth
↓
(If supported by:)
- High HDI
- Adequate Infrastructure
- Stable Inflation
- Efficient Government Spending

Without these factors:
Investment → Weak or Insignificant Growth Effect

Overall Empirical Pattern

From the synthesis at table 2 and figure 3 of the reviewed studies, approximately two-thirds confirm a positive association between investment and regional economic growth in Indonesia. Nevertheless, the level of statistical significance varies across regions and empirical models. This variation can be explained by several structural factors. First, regional absorptive capacity determines how effectively capital inflows are transformed into productive activities. Regions with stronger human capital, institutional quality, and economic integration tend to exhibit higher investment elasticity. Second, the sectoral allocation of investment plays a crucial role, as capital concentrated in capital-intensive or extractive sectors may generate limited spillover effects compared to investments in labor-intensive or infrastructure-related sectors. Third, institutional and macroeconomic stability, including governance quality and inflation control, significantly influence investment performance. Finally, infrastructure readiness affects connectivity, efficiency, and production costs, thereby shaping the overall growth impact. These findings indicate that investment-led growth in Indonesia is conditional rather than automatic, depending heavily on complementary structural factors.

5. Discussion

Investment-Led Growth: Conditional Dynamics

The findings confirm that investment generally exerts a positive influence on regional economic growth. However, the heterogeneity of statistical significance across provinces indicates that capital accumulation alone is insufficient to guarantee sustained growth. This result aligns with the Harrod–Domar framework, which emphasizes capital formation as a driver of output expansion (Nurfifah et al., 2022), but also supports endogenous growth theory, which stresses the importance of complementary factors such as human capital and institutional quality.

Empirical studies demonstrating significant positive effects (Manullang et al., 2024; Sitorus et al., 2025; Nurjannah et al., 2024) suggest that investment elasticity is higher in regions with relatively developed infrastructure and market integration. Conversely, insignificant findings in Jambi (Rahmah et al., 2024), Aceh (Safarida & Rahmawati, 2022), and Kalimantan Utara (Sari, 2021) indicate the presence of absorptive capacity constraints.

This conditionality can be expressed within the extended growth regression framework:

$$GRDP_{it} = \alpha + \beta_1 INV_{it} + \beta_2 HC_{it} + \beta_3 INFRA_{it} + \beta_4 INST_{it} + \varepsilon_{it}$$

Where:
HC_{it}= human capital (HDI)
$INFRA_{it}$= infrastructure quality

$INST_{it}$= institutional and macroeconomic stability

The coefficient $\beta_1$is therefore contingent on structural variables.

Human Capital and Infrastructure as Growth Multipliers

Human capital consistently emerges as a strong determinant of regional growth (Kustanto, 2020; Fahrurrozi et al., 2023). Regions with higher HDI are better positioned to utilize investment efficiently. This finding at table 3 supports endogenous growth arguments that education and health increase productivity and enhance capital returns.

Infrastructure investment further amplifies growth effects by reducing transaction costs and improving production efficiency (Anggini et al., 2018). Without adequate infrastructure, private and foreign investment may not generate optimal spillovers.

Table 3. Moderating Variables and Their Growth Role

Variable	Empirical Effect	Key References
Human Capital (HDI)	Positive & Significant	Kustanto (2020); Fahrurrozi et al. (2023)
Infrastructure	Positive & Significant	Anggini et al. (2018)
Government Expenditure	Mixed Effect	Effendi et al. (2025)
Inflation	Negative & Significant	Pitri et al. (2024); Zaharani & Nasir (2025)

Institutional and Macroeconomic Stability

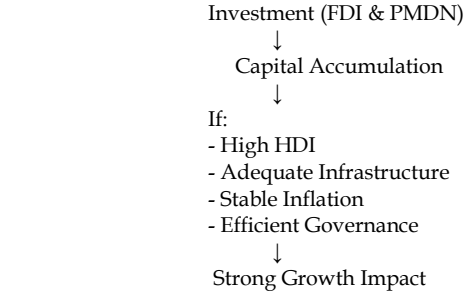
Macroeconomic stability significantly shapes investment outcomes. Inflation consistently shows a negative impact on growth (Pitri et al., 2024; Zaharani & Nasir, 2025), indicating that unstable price levels reduce investment efficiency and economic performance.

Government expenditure presents mixed findings. While it can stimulate economic activity, inefficient allocation may reduce growth impact (Effendi et al., 2025). Therefore, fiscal quality is more important than fiscal size.

Western–Eastern Regional Disparity

Comparative analysis reveals that Western Indonesia demonstrates stronger investment elasticity compared to Eastern Indonesia (Suparta & Ridho Alfajar, 2025). This disparity reflects differences in infrastructure readiness, labor productivity, and economic integration.

Figure 4. Conditional Investment-Growth Mechanism



This framework figure 4 illustrates that investment-led growth is structurally conditioned rather than automatic.

Policy Implications and Recommendations

Strengthening Regional Absorptive Capacity, Investment policy should prioritize improving human capital and infrastructure to enhance regional absorptive capacity. Expanding education quality, healthcare access, and vocational training will increase productivity and maximize capital returns (Kustanto, 2020; Fahrurrozi et al., 2023).

Infrastructure Equalization, Reducing disparities between Western and Eastern Indonesia requires strategic infrastructure development, particularly in transportation, electricity, and logistics networks (Anggini et al., 2018; Suparta & Ridho Alfajar, 2025).

Improving Fiscal Efficiency, Government expenditure should focus on productive sectors and avoid inefficient allocations that may weaken growth effects (Effendi et al., 2025). Performance-based budgeting can improve fiscal impact.

Maintaining Macroeconomic Stability, Inflation control remains essential to sustain investment-driven growth (Pitri et al., 2024; Zaharani & Nasir, 2025). Stable macroeconomic conditions increase investor confidence and reduce uncertainty.

Promoting Quality-Oriented Investment, Policy should move beyond increasing investment volume toward improving investment quality, sectoral targeting, and regional distribution. Investment in labor-intensive and productivity-enhancing sectors can generate broader spillover effects.

Conclusion of Discussion

The discussion confirms that investment is a necessary but not sufficient condition for regional economic growth in Indonesia. The effectiveness of investment depends on human capital, infrastructure, macroeconomic stability, and institutional quality. Therefore, an integrated development strategy is required to transform capital inflows into inclusive and sustainable regional growth.

6. Conclusion

This study synthesizes empirical evidence on the relationship between investment and regional economic growth in Indonesia. The findings indicate that investment—both foreign direct investment (FDI) and domestic investment—generally exerts a positive influence on regional economic performance, as reflected in Gross Regional Domestic Product (GRDP). Empirical studies such as Manullang et al. (2024), Sitorus et al. (2025), and Nurjannah et al. (2024) confirm the significant contribution of investment to economic growth in several provinces.

However, the results also demonstrate substantial regional heterogeneity. In provinces such as Jambi, Aceh, and Kalimantan Utara, investment does not consistently produce statistically significant effects (Rahmah et al., 2024; Safarida & Rahmawati, 2022; Sari, 2021). These differences indicate that investment-led growth is conditional rather than automatic.

The extended growth framework discussed in this study can be summarized as follows:

$$GRDP_{it} = \alpha + \beta_1 INV_{it} + \beta_2 HC_{it} + \beta_3 INFRA_{it} + \beta_4 INST_{it} + \varepsilon_{it}$$

The coefficient of investment (β_1) depends on complementary structural factors, particularly human capital (Kustanto, 2020; Fahrurrozi et al., 2023), infrastructure readiness (Anggini et al., 2018), fiscal efficiency (Effendi et al., 2025), and macroeconomic stability (Pitri et al., 2024; Zaharani & Nasir, 2025). Regions with higher absorptive capacity exhibit stronger investment elasticity compared to structurally constrained regions, particularly in Eastern Indonesia (Suparta & Ridho Alfajar, 2025).

Overall, investment remains a crucial driver of regional economic growth in Indonesia, but its effectiveness is highly dependent on institutional quality, infrastructure development, human capital

strength, and macroeconomic stability. Therefore, policy strategies should not merely focus on increasing the volume of investment but must also enhance the structural conditions that enable investment to generate inclusive, balanced, and sustainable regional growth.

References

Anggini, R. D., Priyono, T. H., Riniati, & Fathorrazi, M. (2018). Dampak investasi infrastruktur terhadap pertumbuhan ekonomi di Pulau Jawa. *JAE: Jurnal Akuntansi dan Ekonomi, 7*(3). https://doi.org/10.29407/jae.v7i3.18744

Apriliansah, L., & Suyatno. (2024). Analisis pengaruh investasi terhadap pertumbuhan ekonomi. *JICN: Jurnal Intelek dan Cendikiawan Nusantara, 1*(2), 2401–2413.

Effendi, A., Zein, A. W., & Islam, U. N. (2025). Pengaruh pengeluaran pembangunan dan investasi terhadap pertumbuhan ekonomi Provinsi Sumatera Utara. *Menawan: Jurnal Riset dan Publikasi Ilmu Ekonomi, 3*(3), 9–18.

Fahrurrozi, M., Mohzana, Hartani, H., Yunitasari, D., & Basri, H. (2023). Peningkatan indeks pembangunan manusia regional dan implikasinya terhadap ketahanan ekonomi wilayah. *Jurnal Ketahanan Nasional, 29*(1), 70–89.

Kustanto, A. (2020). Pertumbuhan ekonomi regional di Indonesia: Peran infrastruktur, modal manusia dan keterbukaan perdagangan. *Buletin Studi Ekonomi, 25*(1), 80–98.

Manullang, R. R., Nasution, A. A., Nasution, A. A., Syofya, H., & Haeril. (2024). Analisis pengaruh investasi asing dan investasi dalam negeri terhadap pertumbuhan ekonomi di Indonesia. *Edunomika, 8*(2), 1–12.

Maulana, W., Mualim, A., & Meiyenti, I. (2025). Investasi modal publik dan pertumbuhan daerah: Implikasi fiskal dari pembangunan ibu kota negara (IKN) Indonesia (2020–2024). *Jurnal Kajian Ekonomi dan Keuangan Daerah, 13*(1), 1–12.

Nurjannah, V., Ardianti, A. S., & Pratama, D. (2024). Analisis pengaruh investasi terhadap pertumbuhan ekonomi di Provinsi Riau. *Media Ekonomi dan Bisnis, 1*(2), 73–80.

Nurfifah, R., Walewangko, E. N., & Masloman, I. (2022). Analisis pengaruh pertumbuhan ekonomi dan investasi terhadap ketimpangan kota-kota di Provinsi Sulawesi Utara. *Jurnal Berkala Ilmiah Efisiensi, 22*(5), 25–36.

Oktaviani, N., Pratama, M. I., Rahayu, S., & Rahim, A. (2024). Pengaruh investasi dan ekspor terhadap pertumbuhan ekonomi di Sumatera Barat. *Jurnal Ekonomika dan Bisnis (JEBS), 4*(4), 748–754.

Pangestin, Y. Y., Soelistyo, A., & Suliswanto, M. S. W. (2021). Analisis pengaruh investasi, net ekspor dan pengeluaran pemerintah terhadap pertumbuhan ekonomi Indonesia. *Jurnal Ilmu Ekonomi (JIE), 5*(1), 187–201.

Pitri, A., Murtala, Abbas, T., & Saharuudin. (2024). Pengaruh tingkat inflasi, investasi dan pengangguran terhadap pertumbuhan ekonomi di beberapa negara Asia Tenggara. *Jurnal Ekonomi Regional Indonesia, 7*(1), 29–40.

Rahmah, M., Kurniawan, B., & Rohana. (2024). Pengaruh perdagangan internasional, investasi, dan pembiayaan syariah terhadap pertumbuhan ekonomi Provinsi Jambi. *Jurnal Ilmiah Ekonomi dan Manajemen, 2*(6), 774–786.

Royan, M., Riyanto, W. H., & Nuraini, I. (2019). Pengaruh pertumbuhan ekonomi dan investasi terhadap ketimpangan pendapatan di kabupaten/kota Provinsi Nusa Tenggara Barat. *Jurnal Ilmu Ekonomi, 3*(3), 365–375.

Safarida, N., & Rahmawati, S. (2022). Mengukur pertumbuhan ekonomi Aceh melalui investasi dan tenaga kerja: Peran pendapatan asli daerah sebagai pemediasi. *Jurnal Investasi Islam, 7*(2), 85–108.

Sari, I. (2021). Pengaruh investasi dan indeks pembangunan manusia terhadap pertumbuhan ekonomi regional di Provinsi Kalimantan Utara. *Pareto: Jurnal Ekonomi dan Kebijakan Publik, 4*(2).

Sitorus, M. C., Ginting, F. H., Sirait, K. D., & Sigalingging, R. E. (2025). Pengaruh investasi dan pengangguran terhadap pertumbuhan ekonomi di Sumatera Utara. *Jurnal Media Akademik, 3*(6).

Suparta, I. W., & Ridho Alfajar. (2025). Pengaruh investasi dan tenaga kerja terhadap pertumbuhan ekonomi di kawasan Timur dan Barat Indonesia. *Jurnal Ekonomika dan Bisnis (JEBS), 5*(6), 1142–1151.

Yamani, R., Lubis, I., & Albar, A. (2025). Analisis faktor-faktor penentu daya tarik investasi dan hubungannya terhadap pertumbuhan ekonomi regional di Indonesia. *Jurnal Manajemen Terapan dan Keuangan (Mankeu), 14*(4), 1874–1886.

Zaharani, A. Z., & Nasir, M. (2025). Pengaruh investasi dan inflasi terhadap pertumbuhan ekonomi Indonesia. 1–14.