Analysis of the Influence of Government Expenditure in the Fields of Education, Social Protection, Public Services, Infrastructure, Community Empowerment, Investment, and HDI on Economic Growth in the 3T Regions (Underdeveloped, Frontier, and Outermost) of Indonesia

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Abstract

This study examines the impact of government expenditure in education, social protection, public services, infrastructure, community empowerment, investment, and the Human Development Index (HDI) on economic growth in Indonesia's Disadvantaged, Frontier, and Outermost (3T) regions before and after the COVID-19 pandemic. Employing a quantitative approach, this research analyzes panel data from 62 regencies categorized as 3T regions from 2017 to 2022. The study uses panel data regression analysis to evaluate the influence of these expenditures on economic outcomes. Findings indicate that government spending in the education sector consistently had a positive effect on economic growth before and after the pandemic. Conversely, expenditure in social protection and HDI shifted from having a positive to a negative impact post-pandemic. Meanwhile, investments in public services, infrastructure, and overall investment, which previously had a negative impact, showed a positive influence in the post-pandemic period. Overall, government spending across all sectors had a simultaneous and significant positive effect on economic growth in the 3T regions. These results underscore the need for evidence-based policy interventions to enhance the effectiveness of government spending in promoting equitable economic growth in underdeveloped areas.

| Keywords | government expenditure, economic growth, 3T regions. |

INTRODUCTION

Economic growth has long been used as a measure or reference for assessing the success of economic development at both national and regional levels. This process involves sustainable changes in a country's economic conditions, gradually improving toward better circumstances over a certain period of time (Hamdani et al., 2023). Economic growth can serve as an important indicator for evaluating a country's development success, as it reflects the process of gradually increasing output over time (H. Rahmawati, 2023).

Improvements in economic growth also have an impact on 3T regions. The 3T regions refer to Underdeveloped, Frontier, and Outermost Regions. These are areas in Indonesia with geographical, social, economic, and cultural conditions that are less developed compared to other regions at the national level. Additionally, the 3T regions serve as Indonesia's gateways to its borders with neighboring countries. Data on the economic growth rate in Indonesia's 3T regions can be seen as follows.

Table 1. Differences between 3T and Non 3T Regions in Indonesia

Differences between 3T and Non 3T Regions in Indonesia	
3T Region	**Non 3T Region**
Minimal fiscal conditions accompanied by geographical location, difficult topography, and difficult to reach	The fiscal conditions are quite adequate, accompanied by a good geographical location, topography and easy access to the results of central government development.
Limited infrastructure development (lack of facilities and infrastructure and difficulty in obtaining electricity, water, transportation, telecommunications and access to road repairs)	Better and more equitable infrastructure development
Weak human resources at both the apparatus and community levels	Quality and structured human resources at all levels
Low level of government service to the community	The level of government service to the community is higher and more transparent

Source: Regional Bulletin of the Ministry of National Development Planning/Bappenas Edition 24, 2010 ISSN 1693-6957, "Dynamics of Development of State Border Areas", 2010

The comparison between 3T and Non-3T regions in the table highlights descriptive characteristics of each category. Differences in regional conditions and the amount of intergovernmental transfers naturally lead to variations in the output and outcomes managed by these regions. Therefore, regional development should be aligned with the potential and characteristics of each region's resources (Hariyanti and Rendra, 2022).
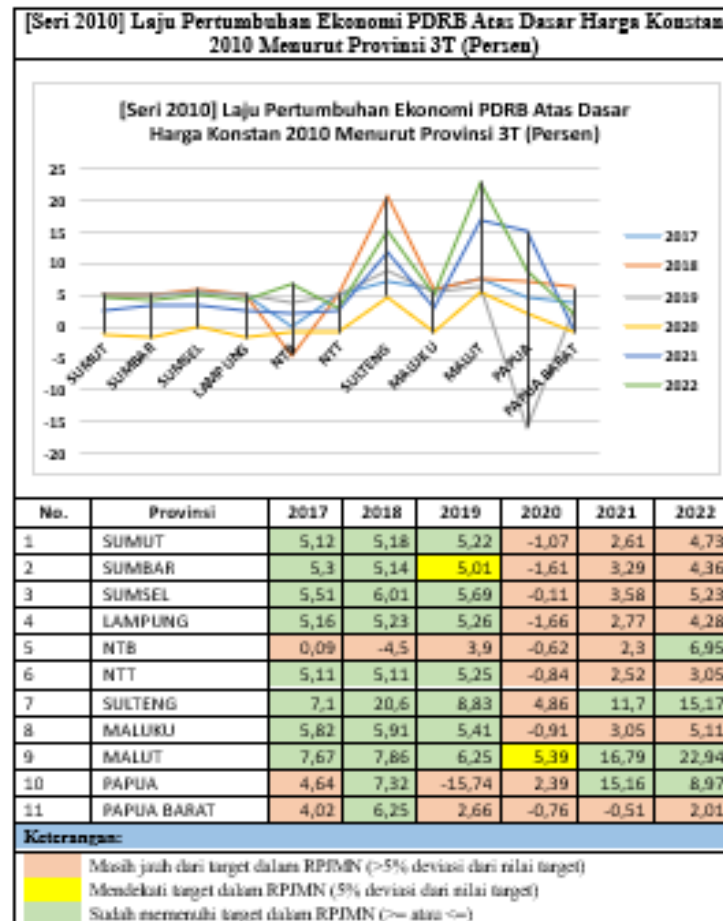
Previously, the regencies/cities categorized as 3T regions were determined based on Presidential Regulation Number 131 of 2015 concerning the Determination of Underdeveloped Regions for 2015–2019. The Ministry of PPN/National Development Planning Agency (Bappenas) and the Ministry of Villages, Development of Underdeveloped Regions, and Transmigration (KDPDTT) conducted a mapping of underdeveloped regions. The results showed that 120 regencies in Indonesia, out of a total of 514, were categorized as underdeveloped. However, this was updated through Presidential Regulation Number 63 of 2020, which revised the number of underdeveloped regions for 2020–2024, reducing the total to 62 regencies out of 514.

In the Sumatra Island region, this includes 7 regencies, further divided as follows:
1. North Sumatra Province: 4 regencies (Nias, South Nias, North Nias, and West Nias), representing 6%.
2. West Sumatra Province: Mentawai Islands, representing 2%.
3. South Sumatra Province: North Musi Rawas, representing 2%.
4. Lampung Province: West Coast, representing 2%.

Economic growth improvements also affect the 3T regions. The 3T regions, which stand for Disadvantaged, Frontier, and Outermost Regions, are areas in Indonesia

characterized by less developed geographical, social, economic, and cultural conditions compared to other regions at the national level. Additionally, the 3T regions serve as strategic gateways to Indonesia's borders with neighboring countries. Data on economic growth rates in Indonesia's 3T regions can be seen below.

[Seri 2010] Laju Pertumbuhan Ekonomi PDRB Atas Dasar Harga Konstan 2010 Menurut Provinsi 3T (Persen)

No.	Provinsi	2017	2018	2019	2020	2021	2022
1	SUMUT	5,12	5,18	5,22	-1,07	2,61	4,73
2	SUMBAR	5,3	5,14	5,01	-1,61	3,29	4,36
3	SUMSEL	5,51	6,01	5,69	-0,11	3,58	5,23
4	LAMPUNG	5,16	5,23	5,26	-1,66	2,77	4,28
5	NTB	0,09	-4,5	3,9	-0,62	2,3	6,95
6	NTT	5,11	5,11	5,25	-0,84	2,52	3,05
7	SULTENG	7,1	20,6	8,83	4,86	11,7	15,17
8	MALUKU	5,82	5,91	5,41	-0,91	3,05	5,11
9	MALUT	7,67	7,86	6,25	5,39	16,79	22,94
10	PAPUA	4,64	7,32	-15,74	2,39	15,16	8,97
11	PAPUA BARAT	4,02	6,25	2,66	-0,76	-0,51	2,01

Keterangan:
Masih jauh dari target dalam RPJMN (>5% deviasi dari nilai target)
Mendekati target dalam RPJMN (5% deviasi dari nilai target)
Sudah memenuhi target dalam RPJMN (>= atau <=)

Gambar 1.1. Laju Pertumbuhan Ekonomi PDRB Atas Dasar Harga Konstan 2010 Menurut Provinsi 3T (Persen)
Sumber: BPS Indonesia, 2024

The image above illustrates that among the underdeveloped regions prioritized by the central government, referred to as the "Disadvantaged Region Locus" in the RPJMN, economic growth in West Nusa Tenggara (NTB) ranks first, followed by Papua in second place and West Papua in third place. However, these provinces fall below the standards set in the National Development Targets (Macroeconomics) of the RPJMN for 2015–2019, which aimed for an average economic growth of 5.1–8.0% per year, and for 2020–2024, with a target of 5.4–6.0% per year. This indicates that the government has not yet succeeded in achieving equitable economic growth across all regions.

According to Presidential Regulation Number 63 of 2020, underdeveloped regions for 2020–2024 are districts where communities and territories are less developed compared to other areas nationally. A region is designated as underdeveloped based on the following criteria:

1. Community economic growth,
2. Human resources,
3. Facilities and infrastructure,
4. Regional financial capacity,
5. Accessibility, and
6. Regional characteristics.

The primary issue contributing to a region being classified as a 3T region (Disadvantaged, Frontier, and Outermost) lies in disparities in community economic growth. These disparities affect the pace of infrastructure development and the implementation of government work programs.

The concept of human development focuses on providing more opportunities for people to achieve a decent standard of living, which involves improving purchasing power and basic capacities. Efforts to improve basic capacity include enhancing education and health services (Rahmawati, 2019). To evaluate the quality of human life, the Human Development Index (HDI) is utilized.

Introduced by the United Nations Development Program (UNDP) in 1990, the HDI measures human development based on three main indicators:
1. Health: Life expectancy and general health conditions.
2. Quality of Education: Literacy rates and access to education.
3. Equitable Access to Economic Resources: Purchasing power and income levels.

These indicators aim to provide a comprehensive view of human development, emphasizing the importance of addressing inequalities in underdeveloped regions to improve their standard of living.

Data Indeks Pembangunan Manusia (IPM) Provinsi Wilayah 3T di Indonesia Tahun 2017-2022

	SUMUT	SUMBAR	SUMSEL	LAMPUNG	NTB	NTT	SULTENG	MALUKU	MALUT	PAPUA	PAPUA BARAT
2022	72,71	73,26	70,9	70,45	69,46	65,9	70,28	70,22	69,47	61,39	65,89
2021	72	72,65	70,24	69,9	68,65	65,28	69,79	69,71	68,76	60,62	65,26
2020	71,77	72,38	70,01	69,69	68,25	65,19	69,55	69,49	68,49	60,44	65,09
2019	71,74	72,39	70,02	69,57	68,14	65,23	69,5	69,45	68,7	60,84	64,7
2018	71,18	71,73	69,39	69,02	67,3	64,39	68,88	68,87	67,76	60,06	63,74
2017	70,57	71,24	68,86	68,25	66,58	63,73	68,11	68,19	67,2	59,09	62,99

METHOD
Place and Time of Research

Study This carried out in the 3T (Underdeveloped, Frontier and Outermost) regions in Indonesia during period 2017-2022 or with term time for 6 (six) years.

Types of research

Types of research This use method quantitatively conducted in a way systematic, planned and structured with clear from stage beginning until design research. According to Sugiyono (2019) , method study quantitative based on philosophy positivism and use For investigate population or sample certain. Data collected use instrument research and analyzed in a way quantitative or statistics for test hypothesis that has been formulated.

Instrument Operational Variables Study
Table 2. Operational Instruments of Research Variables

Variables	Description	Research Data Sources
Shopping Function of Education Sector (BFPEND (X_1))	Government expenditure in the education sector (functional expenditure in the education sector) of the city/district i in Indonesia in year t (in thousands of Rp. (nominal Rupiah))	APBD Realization Report Data from DJPK Ministry of Finance of the Republic of Indonesia
Shopping Function of Social Protection Sector (BFPS($X2$))	Government expenditure in the field of social protection (functional expenditure in the field of social protection) in the city/district i in Indonesia in year t (in thousands of Rp. (nominal Rupiah))	APBD Realization Report Data from DJPK Ministry of Finance of the Republic of Indonesia
Shopping Function of Public Service Sector (BFPU (X_3))	Government expenditure in the field of public services (functional expenditure in the field of public services) in the city/district i in Indonesia in year t (in thousands of Rp. (nominal Rupiah))	APBD Realization Report Data from DJPK Ministry of Finance of the Republic of Indonesia
Infrastructure Function Shopping (BFINF (X_4))	Government expenditure in the infrastructure sector (functional expenditure in the infrastructure sector) of the City/Regency i in Indonesia in year t (in thousands of Rp. (nominal Rupiah))	APBD Realization Report Data from DJPK Ministry of Finance of the Republic of Indonesia
Village Shopping in the Community Empowerment Sector (BDPM (X_5))	Village expenditure in the field of community empowerment in the city/district i in Indonesia in year t (in thousands of Rp. (nominal Rupiah))	Data on Village Budget Realization Report from DJPK Ministry of Finance of the Republic of Indonesia
Investment (INVEST (X_6))	The intended investment is total sum position loans / credit ((capital and investment credit) real) from PMDN (units) rupiah) and PMA (foreign currency units USD) general banks	Indonesian Economic and Financial Statistics Data (SEKI) from Bank Indonesia (BI) and the

Variables	Description	Research Data Sources
	operating in every area of City/Regency in Indonesia in year t (in thousands of Rp. (nominal Rupiah))	Ministry of Investment/Investment Coordinating Board (BKPM)
Human Development Index (HDI (X_7))	Human Development Index (HDI) of each city/district i in Indonesia in year t (in percent index (%))	Statistical Data from National BPS and Provincial BPS in Indonesia
Economic growth (PE (Y))	Real growth rate (based on constant prices) of municipalities/districts in Indonesia in year t (in percentage (%))	Statistical Data from National BPS and Provincial BPS in Indonesia

Source: Data Processed by Researchers, 2024

Simultaneous Significance Test (F Test)

The F Test is conducted to determine whether independent variables simultaneously affect the dependent variable (Ghozali, 2020).

1. Sugiyono (2019) explains that there is a positive relationship between independent and dependent variables.
2. The F Test evaluates the collective impact of all independent variables on the dependent variable.
3. Significance level:
   a) If probability < 0.05, reject H_0 and accept H_a (indicating simultaneous influence).
   b) If probability > 0.05, accept H_0 and reject H_a (indicating no simultaneous influence).

Testing the Coefficient of Determination (R^2)

The R^2 test measures the model's ability to explain variations in the dependent variable based on independent variables:

1. Weakness: R^2 increases with additional independent variables, regardless of their significance.
2. To overcome this, adjusted R^2 is used, which ranges from 0 to 1.
   Closer to 1: The model better explains the dependent variable (Ghozali, 2020).

Chow Test

The Chow Test determines whether the Common Effect Model (CEM) or the Fixed Effect Model (FEM) is more appropriate.

Table 3. Chow Test Results

Effects Test	Statistics	df	Prob.
Cross-section F	3.581083	-61,117	0

Since the probability = 0.0000 < 0.05, the Fixed Effect Model (FEM) is the most appropriate model.

Table 4. Results of the *Chow Test for* Underdeveloped and Frontier Regions, and Outermost Before the COVID-19 Pandemic

Cross-section fixed effects test			
Effects Test	Statistics	df	Prob.
Cross-section F	3.581083	(61,117)	0.0000

Source: *EViews Output Results 10*, 2024

Analysis results estimation model selection based on *chow* test show that obtained mark *cross section* F with mark probability as big as 0.0000. This is show that mark probability moresmall from 0.005 (0.0000 < 0.05), then can concluded that based on the results of the *chow* test were carried out known that the most appropriate model used is *Fixed Effect Model* (FEM).

Table 5. Results of the *Chow Test* for Regions Left behind, Frontier, and Outermost

Cross-section fixed effects test			
Effects Test	Statistics	df	Prob.
Cross-section F	1.821197	(61,303)	0.0006

Source: *EViews Output Results 10*, 2024

Analysis results estimation model selection based on *chow* test show that obtained mark *cross section* F with mark probability as big as 0.0006. This is show that mark probability moresmall from 0.005 (0.0006 < 0.05), then can concluded that based on the results of the *chow* test were carried out known that the most appropriate model used is *Fixed Effect Model* (FEM).

Hausman test

Hausman test used For choose the best model between *Fixed Effect Model* (FEM) with *Random Effect Model* (REM) will used in study This is. *Hausman* test results in study This can seen in the table under This:

Table 6. *Hausman* Test Results Disadvantaged Areas, Frontier Areas, and Outermost Before the COVID-19 Pandemic

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Cross-section random effects test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Random cross section	13.950149	7	0.0052

Source: *EViews Output Results 10*, 2024

Hausman test results in the table on show *Hausman* test results in the table on show that mark *random cross section* with mark probability of 0.0052. This is show that mark probability more small from 0.05 (0.0052 < 0.05), then can concluded that based on *hausman* test results which is conducted known that the most appropriate model used is *Fixed Effect Model* (FEM).

1*Underdeveloped* Regions, Frontier, and Outermost

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Cross-section random effects test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Random cross section	59.099081	7	0.0000

Source: *EViews Output Results 10*, 2024

Hausman test results in the table on show *Hausman* test results in the table on show that mark *random cross section* with mark probability as big as 0.0000. This is show that mark probability more small from 0.05 (0.0000 < 0.05), then can concluded that based on *hausman* test results which is conducted known that the most appropriate model used is *Fixed Effect Model* (FEM).

Lagrange Multiplier Test

Lagrange multiplier test aiming For know What are *the Random Effect Model* (REM) and *Common Effect Model* (CEM) models? The results of the *Lagrange multiplier test* in study This can seen in the table under This that is as following:
Table 2. Results of the *Lagrange Multiplier Test for* Underdeveloped, Frontier Regions , and Outermost Before the COVID-19 Pandemic.

Lagrange multiplier (LM) test for panel data			
Null (no rand. effect)	Cross section	Period	Both
Alternative	One sided	One sided	
Breusch Pagan	56.14804	0.066122	56.21416
	(0.0000)	(0.7971)	(0.0000)

Source: *EViews Output Results 10*, 2024

Based on table on results analysis estimation model selection based on the *Lagrange multiplier* test shows that obtained mark *pagan* with mark probability as big as 0.0000 more small from 0.05 (0.000 < 0.05). then can concluded that based on Results of the *Lagrange multiplier* test known that the most appropriate model used is *Random Effect Model* (REM).

Based on The results of the *Chow* test, *Hausman test,* and *Lagrange multiplier test are* the most appropriate estimation models. used is *Fixed Effect Model* (FEM). Then the panel data regression model in the area left behind foremost and outermost before COVID-19 was used in study This is *Fixed Effect Model* (FEM).

Results of the *Lagrange Multiplier Test* Underdeveloped regions, Frontier, and Outermost

Lagrange multiplier (LM) test for panel data			
Null (no rand. effect)	Cross section	Period	Both
Alternative	One sided	One sided	
Breusch Pagan	0.298338	3839.807	3840.105
	(0.5849)	(0.0000)	(0.0000)

Source: *EViews Output Results 10*, 2024

Based on table on results analysis estimation model selection based on the *Lagrange multiplier* test shows that obtained mark *pagan* with mark probability as big as 0.0000 more small from 0.05 (0.000 < 0.05). then can concluded that based on Results of the *Lagrange multiplier* test known that the most appropriate model used is *Random Effect Model* (REM).

Based on The results of the *Chow* test, *Hausman test,* and *Lagrange multiplier test are* the most appropriate estimation models. used is *Fixed Effect Model* (FEM). Then the panel data regression model in the area left behind the foremost and outermost used in study This is *Fixed Effect Model* (FEM).
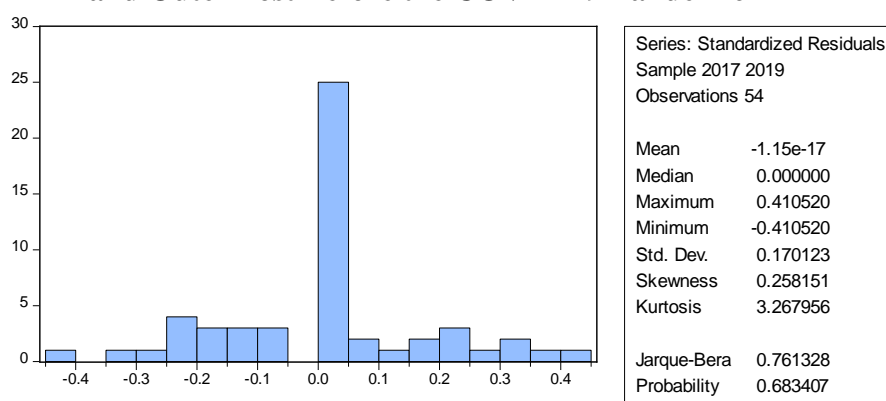
Assumption Test Classic

Assumption test classic in study This is a prerequisite test that is carried out before conduct hypothesis testing. Test assumptions classic in study This consists of from the normality test, multicorrelation test, autocorrelation test, and heteroscedasticity test.

Normality Test

Normality test done For test variable independent and dependent in the regression model own normal distribution or no. The normality test in this study used the *Jarque-Bera test* with a significance level of 5%.

Figure 21Results of Normality Test for Underdeveloped and Frontier Regions, and Outermost Before the COVID-19 Pandemic

| Series: Standardized Residuals |
| Sample 2017 2019 |
| Observations 54 |

Mean	-1.15e-17
Median	0.000000
Maximum	0.410520
Minimum	-0.410520
Std. Dev.	0.170123
Skewness	0.258151
Kurtosis	3.267956
Jarque-Bera	0.761328
Probability	0.683407

Source: *EViews Output Results 10*, 2024

Based on Figure 2 above, it can be seen that the results of the normality test in this study obtained a *Jarque-Bera* probability value of 0.683407. This shows that the *Jarque-Bera probability value* is greater than 0.05 (0.683407 > 0.05) so it can be concluded that the data used is normally distributed.

Figure 3. Results of the Normality Test for Underdeveloped Regions, Frontier, and Outermost

| Series: Standardized Residuals |
| Sample 2017 2022 |
| Observations 95 |

Mean	9.35e-18
Median	0.000000
Maximum	3.194837
Minimum	-3.194837
Std. Dev.	1.142124
Skewness	-0.008726
Kurtosis	3.937295
Jarque-Bera	3.478692
Probability	0.175635
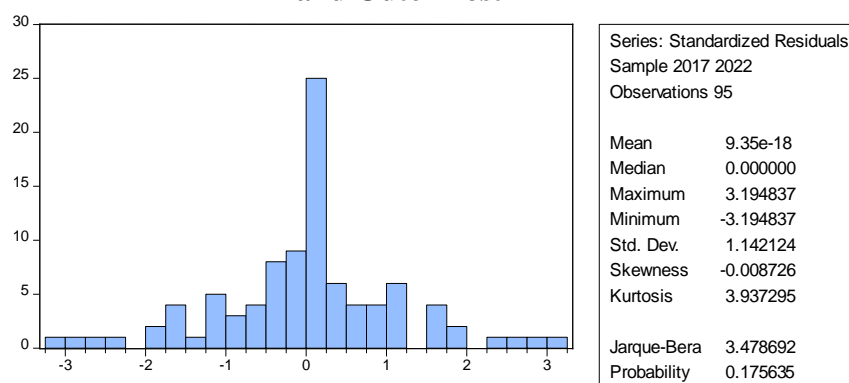
Source: *EViews Output Results 10*, 2024

Based on Figure 3 above, it can be seen that the results of the normality test in this study obtained a *Jarque-Bera* probability value of 0.175635. This shows that the *Jarque-Bera probability value* is greater than 0.05 (0.175635 > 0.05) so it can be concluded that the data used is normally distributed.

The results of this study show that simultaneously, government spending in various sectors including education, social protection, public services, infrastructure, community empowerment, investment, and the Human Development Index (HDI) have a positive and significant impact on economic growth in the 3T (Disadvantaged, Frontier, and Outermost) regions in Indonesia, both before and after the COVID-19 pandemic. This indicates that the allocation of funds in these sectors is effective in driving economic growth in areas that require special attention.

Education spending and improving the HDI can create a more skilled and productive workforce, while investment and good infrastructure can open up new opportunities for investment and growth in other economic sectors. Effective public services can also improve people's quality of life and create an environment that supports business growth and investment. Community empowerment and social protection can also create stable and inclusive social conditions, which are essential to support sustainable economic growth in Indonesia's 3T regions. Therefore, coordinated and evidence-based policy planning and management are essential to increase the effectiveness of government interventions in supporting economic growth in Indonesia's 3T regions.

RESULTS AND DISCUSSION
Impact of Government Expenditure on Economic Growth in 3T Regions

This study highlights that government expenditure in various sectors has varying impacts on economic growth in Indonesia's 3T (Underdeveloped, Frontier, and Outermost) regions before and after the COVID-19 pandemic. Key findings are as follows:

1. **Education Sector (BFPEND)**: Consistently showed a positive and significant effect on economic growth both before and after the pandemic. Investment in education leads to a more skilled workforce, contributing to productivity and economic development.
2. **Social Protection Sector (BFPS)**: Initially had a positive impact, but this shifted to a negative effect after the pandemic. This could indicate inefficiencies or challenges in effectively delivering social protection during a crisis.
3. **Public Service Sector (BFPU)**: Displayed a reversal, with a negative impact before the pandemic turning positive afterward, possibly reflecting improved public service delivery mechanisms in response to the pandemic.
4. **Infrastructure Sector (BFINF)**: Transitioned from a negative impact pre-pandemic to a positive impact post-pandemic, highlighting the role of infrastructure development in economic recovery.
5. **Community Empowerment (BDPM)**: Showed negative significance before the pandemic, but its effect became neutral post-pandemic, suggesting that community empowerment programs require better alignment with local needs to drive growth.

6. **Investment (INVEST)**: Followed a similar pattern to infrastructure, becoming a positive driver post-pandemic, underlining the importance of private and public investments in economic resilience.
7. **Human Development Index (HDI)**: Consistently showed a significant relationship with economic growth, although the direction varied, indicating the need for more focused HDI improvement strategies.

Sector-Specific Observations
1. **Education**: Education expenditure emerged as a critical factor in fostering economic resilience and long-term growth. The consistent positive impact reflects its ability to improve labor market outcomes and productivity.
2. **Infrastructure**: The shift in the impact of infrastructure spending underscores its role in recovery and growth. Infrastructure investments post-pandemic opened avenues for regional connectivity and improved market access.
3. **Social Protection**: The shift from a positive to a negative effect post-pandemic may reflect the strain on resources or inefficiencies in implementation during a crisis.
4. **Community Empowerment**: The limited impact of community empowerment spending post-pandemic suggests that these programs need better integration with economic initiatives to achieve tangible growth outcomes.

Comparative Analysis: 3T vs. Non-3T Regions
The study underscores the stark contrast in fiscal conditions, infrastructure development, and human resources between 3T and Non-3T regions. 3T regions lag significantly, characterized by:
1. Limited infrastructure and geographical accessibility.
2. Weak human resources, both at the community and administrative levels.
3. Poor quality and limited scope of public services.

Policy interventions in 3T regions should focus on tailoring investments to regional characteristics and leveraging local potential to bridge disparities with non-3T regions.

Post-Pandemic Recovery and Economic Growth
The pandemic-induced economic challenges highlighted the importance of targeted fiscal interventions in underdeveloped regions. The findings suggest that government spending in critical areas such as education, infrastructure, and social services played a pivotal role in driving recovery, albeit with mixed effectiveness. Post-pandemic growth in 3T regions remains highly dependent on:
1. Sustained investments in human capital.
2. Improvements in infrastructure to enhance connectivity.
3. Streamlined social protection mechanisms for vulnerable populations.

Implications for Policy

The study provides evidence-based insights for policymakers to optimize government expenditure and address structural challenges in 3T regions:

1. **Enhancing Education**: Continued focus on education funding is critical to reducing long-term inequalities and fostering inclusive growth.
2. **Strengthening Infrastructure**: Prioritize investments in transport, telecommunications, and energy infrastructure to enhance regional integration.
3. **Reforming Social Protection**: Revise and adapt social protection programs to address inefficiencies and ensure equitable access during crises.
4. **Promoting Community Empowerment**: Align community programs with regional economic priorities to maximize their impact.
5. **Fostering Investments**: Encourage private sector participation and create a conducive environment for sustainable investments.

Limitations and Future Research

While the findings provide valuable insights, the study has certain limitations:

1. **Data Coverage**: The analysis focuses on 3T regions, and broader comparative studies with non-3T regions could yield additional insights.
2. **Sectoral Analysis**: A more granular analysis of subsectors within infrastructure or education could provide deeper understanding.
3. **Long-Term Impacts**: Future studies could explore the long-term effects of government spending patterns on economic resilience and growth in 3T regions.

This study serves as a foundation for further research to guide evidence-based policy formulation and enhance the economic potential of Indonesia's underdeveloped regions.

CONCLUSION

Based on the results of the data analysis conducted by the researcher, the following conclusions can be drawn from this study:

1. Government Expenditure in the Education Sector (BFPEND) before and after the COVID-19 pandemic has a positive and significant impact on Economic Growth (PE) in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.
2. Government Expenditure in the Social Protection Sector (BFPS) before the COVID-19 pandemic had a positive and significant effect on Economic Growth (PE), but after the pandemic had a negative and significant effect on Economic Growth (PE). in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.
3. Government Expenditure in the Public Services Sector (BFPU) before the COVID-19 pandemic had a negative and significant effect on Economic Growth (PE), but after the pandemic had a positive and significant effect on Economic Growth (PE). in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.
4. Government Infrastructure Expenditure (BFINF) before the COVID-19 pandemic had a negative and significant effect on Economic Growth (PE), but after the pandemic had a

positive and significant effect on Economic Growth (PE). in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.

5. Community Empowerment (BDPM) before the COVID-19 pandemic had a negative and significant effect on Economic Growth (PE), but after the pandemic it did not have a positive and significant effect on Economic Growth (PE). in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.

6. Investment (INVEST) before the COVID-19 pandemic had a negative and significant effect on Economic Growth (PE), but after the pandemic it had a positive and significant effect on Economic Growth (PE). in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.

7. Human Development Index (HDI) before and after the COVID-19 pandemic had a negative and significant impact on Economic Growth (PE), but after the pandemic had a negative and significant impact on Economic Growth (PE). in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.

8. Simultaneously, government spending in the fields of education, social protection, public services, infrastructure, community empowerment, investment, and Human Development Index before and after the COVID-19 pandemic had a positive and significant impact on economic growth in the 3T (Underdeveloped, Frontier, and Outermost) regions of Indonesia.

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