Signifikan: Jurnal Ilmu Ekonomi
Volume 15(1), 2026: 33 - 48
P-ISSN: 2087-2046; E-ISSN: 2476-9223
https://doi.org/10.15408/sjie.v15i1.50226

The Hidden Side of Regional Economic Growth in Bali

Nyoman Rahayu Trisanthi[1*], Ida Ayu Nyoman Saskara[2]
[1,2]Faculty of Economics and Business, Universitas Udayana, Indonesia
E-mail: [1]nyomanrahayutrisanthi@gmail.com, [2]saskara@unud.ac.id
[*]**Corresponding author**

JEL Classification:
H72
O47
R11
I32

Received: 20 January 2026

Revised: March 3, 2026

Accepted: 10 March 2026

Available online: April 2026

Published regularly: April 2026

ABSTRACT

Research Originality: This research's novelty lies in its examination of the development of a multidimensional, non-compensatory framework, based on the Adjusted Mazziotta–Pareto Index (AMPI), which integrates regional fiscal priorities and socio-economic outcomes to map patterns of economic growth performance.

Research Objectives: This research aims to assess the patterns and dynamics of economic growth performance across regencies and municipalities in Bali Province before, during, and after the COVID-19 pandemic, with particular attention to differences in growth quality, resilience, and recovery.

Research Methods: This research employs the Adjusted Mazziotta–Pareto Index (AMPI) analysis from 2016 to 2024, which is constructed using five indicators: government spending on public services, education, health, lowering the poverty rate, and supporting GRDP growth.

Empirical Results: The results indicate that economic growth performance across regencies and municipalities in Bali Province is dynamic and heterogeneous, varying by region and period.

Implications: Regional development policies should prioritize the quality and resilience of economic growth by balancing public spending across structurally impactful sectors and adopting adaptive fiscal strategies.

Keywords:

government spending; poverty; economic resilience; composite index; Covid-19

How to Cite:

Trisanthi, N. R., & Saskara, I. A. N. (2026). The Hidden Side of Regional Economic Growth in Bali. *Signifikan: Jurnal Ilmu Ekonomi*, *15*(1), 33-48. https://doi.org/10.15408/sjie.v15i1.50226.

INTRODUCTION

Economic growth measured solely by Gross Domestic Product (GDP) or Gross Regional Domestic Product (GRDP) is often regarded as insufficient to reflect economic development performance. Those aggregate output–based measures tend to overlook structural factors that shape the sustainability of growth, including the composition of fiscal policy and public expenditure priorities that determine how the benefits of growth are distributed over the long term (Shaddady, 2022). Developments in public spending across the ASEAN region also indicated how the health sector has increasingly been positioned as a long-term fiscal priority (Melati & Sihaloho, 2025). Further empirical evidence from Indonesia showed that, in the long run, government spending has a positive and significant effect on economic growth (Nofrianto et al., 2021). Nevertheless, numerous studies emphasized that the structure and quality of government spending served a greater decisive role than the sheer magnitude of aggregate expenditure in promoting sustainable economic growth, particularly when spending is directed toward productive sectors such as education, health, and innovation and research (Antolin-Diaz & Surico, 2025; Emeru, 2023).

These studies on the relationship between government spending and economic growth presented results that were not entirely consistent. On one hand, increased public spending on education and health functions has been widely regarded as an investment in human capital that can enhance productivity and long-term economic capacity (Nuţă et al., 2023; Anwar et al., 2023; Ziberi et al., 2022; Zubir et al., 2023). On the other hand, the effectiveness of government spending is highly contingent upon the efficiency and composition of expenditure, particularly during periods marked by major economic shocks, such as financial crises and the COVID-19 pandemic, when unproductive spending may burden fiscal sustainability instead, without generating meaningful growth (Afonso & Alves, 2025; Antolin-Diaz & Surico, 2025). These divergent findings signaled an ongoing academic debate regarding the extent to which government spending genuinely promotes high-quality economic growth, rather than merely accelerating aggregate growth rates.

Beyond the growth dimension, several studies also highlighted the link between government spending and social outcomes, particularly in poverty. Public spending plays a more consistent role in poverty reduction than economic growth alone, thereby revealing the limitations of GDP- or GRDP-based indicators when used in isolation (Kitole et al., 2024). High economic growth does not necessarily reflect development quality if it is not accompanied by improvements in social indicators and welfare distribution; consequently, increases in aggregate growth rates alone were insufficient to ensure inclusive and sustainable development (Fitriady et al., 2022; Poku et al., 2022; Yulianita et al., 2023). In the vicious cycle of poverty theory, high poverty levels can hinder economic growth through reduced productivity and constrained investment, which emphasizes the correlation between low income, limited access to education and healthcare, as well as weak regional economic capacity (Prameswari et al., 2021;

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

Supratiyoningsih & Yuliarmi, 2022; Zhu et al., 2022). The elasticity of economic growth with respect to poverty reduction is relatively low when poverty is perceived as a multidimensional phenomenon; therefore, poverty should be treated as an indicator of the quality of economic growth rather than an end state of growth (Balasubramanian et al., 2023).

Recent studies similar to ours indicated a shift away from reliance on single economic indicators toward multidimensional evaluation frameworks that integrate economic and social dimensions in assessing regional development performance (Lin & Zhou, 2022). The COVID-19 pandemic has further underscored the inadequacy of single growth indicators such as GDP or GRDP for evaluating regional development performance, and highlighted the importance of integrated approaches that link fiscal policy, the composition of public expenditure, and social outcomes (Naseer et al., 2023). Crises such as the COVID-19 pandemic have not only affected aggregate growth but also altered household consumption patterns and suppressed purchasing power, particularly in regions with specific economic structures (Murti et al., 2023). The effectiveness of fiscal intervention was determined not only by the scale of budgetary expansion but also by the composition and quality of public spending, especially in allocations to productive expenditures that enhance long-term economic capacity and productivity (Sardoni, 2024).

In the Indonesian context, local government spending is classified according to governmental affairs and functions, aligned with the national budgeting system. At the regency/municipality level in Bali Province, budget allocations are predominantly concentrated on public service functions, education, and health (DJPK, 2025). Regencies and municipalities in Bali Province exhibit an economic structure highly specialized in the tourism and service sectors, enabling relatively rapid growth during expansionary periods. However, this strong dependence also increases vulnerability to systemic external shocks, such as the COVID-19 pandemic, which had significant impacts on the continuity of accommodation-related businesses and regional economic stability (Dariwardani et al., 2025). These external shocks triggered sharp economic contractions and revealed disparities in adaptive capacity and recovery across regencies and municipalities in Bali Province – making the region a relevant empirical case for examining economic growth performance.

Although research on government spending and economic growth has expanded substantially, most empirical studies continue to rely on causal approaches based on inferential econometric models using single GRDP indicators as proxies for regional economic performance. These approaches have not fully captured the quality, resilience, and social dimensions of regional economic growth, especially amid the systemic shock of the COVID-19 pandemic. Moreover, empirical evidence that integrates the structure of local government spending, particularly spending on public services, education, and health, using a social indicator of poverty within a single multidimensional evaluation framework, remains relatively limited at the regency and municipality level, and from

a cross-crisis perspective. These limitations pointed to a significant research gap in comprehensively mapping and understanding patterns of regional economic growth performance.

Based on this research gap, the novelty of this study lies in extending the measurement of regional economic growth performance beyond single growth indicators, through adopting a multidimensional composite index approach that integrates fiscal, economic, and social dimensions. Furthermore, this study has departed from conventional causal econometric approaches by employing a composite index framework to capture patterns, heterogeneity, and the relative performance of regencies and municipalities across the timespan of pre-, during-, and post-COVID-19 periods. Empirically, this study provides new evidence at the regency and municipality levels in Bali Province, yielding relevant policy implications for prioritizing local government expenditure allocations for public services, education, and health in shaping the quality and resilience of economic growth performance. In line with these contributions, the main objective of this study is to assess the patterns of economic growth performance across regencies and municipalities in Bali Province along the timespan of pre-, during-, and post-COVID-19 periods, using a multidimensional index approach that incorporates government spending allocations to public services, education, health, lowering poverty rate, and supporting GRDP growth rates.

METHODS

This study employed secondary data that was obtained from the National Statistics Agency (*Badan Pusat Statistik*) and the Directorate General of Fiscal Balance (*Direktorat Jenderal Perimbangan Keuangan*) of the Ministry of Finance of the Republic of Indonesia. The scope of this study covers all regencies and municipalities in Bali Province, namely Denpasar Municipality, Badung, Bangli, Buleleng, Gianyar, Jembrana, Karangasem, Klungkung, and Tabanan Regency. The observation period spanned 9 years, from 2016 to 2024. The 2016–2024 timespan was deliberately selected in accordance with several methodological considerations. First of all, this period comprises three distinct economic phases: the economic shock caused by the pandemic, the COVID-19 period, and the post-pandemic recovery period. Delineation of these economic phases not only mapped regional economic growth performance under normal conditions but also evaluated the resilience and recovery capacity of regional economies in response to systemic external shocks. Furthermore, this period ensured consistency in the classification and reporting of regional fiscal data, particularly the local government spending by function, thereby enabling valid comparisons across regions and over time. Accordingly, the 2016–2024 period is considered relevant and sufficient for constructing a composite index that comprehensively captures the dynamics of regional economic growth performance.

This study employed the Adjusted Mazziotta–Pareto Index (AMPI) as its primary analytical tool. AMPI is a non-compensatory composite index that penalizes imbalance

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

among indicators, meaning that units with uneven indicator values cannot offset low performance in one indicator with high performance in another (Mazziotta & Pareto, 2022). AMPI was used in this study to ensure alignment with the research objective, in which local government spending on public services, education, and health functions, together with poverty rates and GRDP growth rates, were treated as complementary and non-substitutable indicators. In this regard, a non-compensatory approach is well-suited to capturing situations in which high economic growth does not necessarily indicate strong economic performance when imbalances in public spending allocation or a persistent high poverty rate accompany it.

Compared with other composite methods, AMPI offered several advantages well aligned with the characteristics of this study. First, AMPI is relatively robust to any changes in indicator structure, thereby allowing consistent comparisons across regencies and municipalities, and over time. Second, AMPI supported both spatial and temporal analyses, which were essential for mapping the dynamics of regional economic growth performance during the periods before, during, and after the COVID-19 pandemic. Third, the stability of index values, even when one or two indicators are excluded, makes AMPI remarkably suitable for analyzing regional performance amid economic fluctuations caused by external shocks (Lazar & Litan, 2022; Scaccabarozzi et al., 2022).

In this study, regional economic growth performance was conceptualized as a multidimensional construct that reflects the interaction between regional fiscal capacity and the socioeconomic conditions of the population. The indicators were grouped into two main dimensions: regional fiscal and socioeconomic. The regional fiscal dimension was represented by local government spending on public services, education, and health. These three indicators reflected the structural priorities of local government spending, which were directly related to government administration, human capital development, and the provision of basic public services. All indicators in the regional fiscal dimension showed a positive polarity, indicating that higher values were interpreted as better conditions for regional economic growth performance. The socioeconomic dimension is represented by the poverty rate and the growth rate of Gross Regional Domestic Product (GRDP). The percentage of the population living in poverty was used as an indicator of the quality of economic growth and was assigned a negative polarity, since an increase in poverty reflects a deterioration in development performance, even when economic growth may still occur. In contrast, the GRDP growth rate showed a positive polarity, reflecting an expansion of economic activity and regional productive capacity.

All indicators in this study were measured in percentage units, as uniform measurement units were intended to facilitate normalization and ensure comparability among indicators in constructing the composite index. Determining polarity direction and measurement units was a critical foundation for the normalization and aggregation stages of the AMPI method, as errors in polarity assignment can lead to biased interpretations of performance. Table 1 presents detailed information on the indicators and polarity of the economic growth performance index.

Table 1. Indicators and Polarity for the Economic Growth Performance Index

Dimension	Indicator	Polarity	Unit
Regional Fiscal	Government Spending by General Public Services Function	Positive	%
Regional Fiscal	Government Spending by Education Function	Positive	%
Regional Fiscal	Government Spending by Health Function	Positive	%
Socioeconomic	Percentage of Population Living in Poverty	Negative	%
Socioeconomic	GRDP Growth Rate	Positive	%

The AMPI method began with data or indicator normalization using the following formula.

$$r_{ij} = \frac{(x_{ij} - Min x_j)}{(\text{Max} x_j - Min x_j)} \text{ x } 60 + 70 \quad (1)$$

Normalization aimed to transform the original indicator values into standardized scores that reflect the relative position of each regency and municipality compared to others with the same indicator. This process enabled a fair and proportional assessment of regional performance across the development dimensions under analysis. Individual indicators were normalized by rescaling to "goalposts," namely, the minimum and maximum values that define the feasible range for each variable across all time periods and analytical units. In this formulation, X_{ij} denotes a matrix with n rows representing the units of analysis and m columns represent the indicators, while Max_{xj} and Min_{xj} denote the targets for the indicator j. These targets corresponded to the minimum and maximum values of the indicator j across all regencies and municipalities in Bali Province, over all periods considered.

Let Inf_{xj} and Sup_{xj} denoted, respectively, were the overall minimum and maximum values of the indicator jacross all units and time periods included in the analysis. By defining Ref_{xj}) as the reference value for the indicator j, the target bounds can be determined as follows:

$$\begin{cases} \text{Min } xj = \text{Ref } xj - \Delta \\ \text{Max } xj = \text{Ref } xj + \Delta \end{cases} \quad (2)$$

where $\Delta = \frac{(\text{Sup}_{x_j} - \text{Inf}_{x_j})}{2}$

Through this procedure, the normalized values were broadly constrained within a range of 70 to 130, with a value of 100 representing the reference level (Ariyani & Fauzi, 2024). After all indicator values have been normalized and adjusted, the aggregation process was conducted to obtain the AMPI score for each unit of analysis. Let M_{ri} and S_{ri} denote, respectively, the mean and standard deviation of normalized indicator values for the unit i. The general form of AMPI is expressed by the following equation.

$$\text{AMPI } +/- = M_{ri} \pm S_{ri}\, cv_i \quad (3)$$

where $CV_i = S_{ri} / M_{ri}$ represents the coefficient of variation for unit i. The ± sign indicated whether the phenomenon being measured was to be maximized or minimized.

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

The AMPI values obtained through this computation process were used as the basis for assessing the relative economic growth performance of regencies and municipalities in Bali Province, both across regions and across analytical periods. AMPI values were interpreted relative to a benchmark of 100, representing the average economic growth performance across all units of analysis in a given year. Respectively, the interpretation of these results is not absolute, but was based on the relative position of each unit with respect to the reference value.

RESULT AND DISCUSSION

In this study, the economic growth performance of regencies and municipalities in Bali Province was assessed using the Adjusted Mazziotta–Pareto Index (AMPI) across three analytical periods: the pre-COVID-19, pandemic, and post-pandemic periods. Overall, the results revealed clear disparities in economic growth performance across regions and notable shifts in performance patterns over time. During the pre-pandemic period, several regencies exhibited higher economic growth than other areas. During the pandemic, however, performance rankings shifted, with urban areas demonstrating greater economic resilience. During the post-pandemic period, regions that experienced the deepest economic contractions during the crisis tend to display stronger recovery performance. This pattern indicated that economic growth performance across regencies and municipalities in Bali Province was dynamic and could not solely be explained by GRDP growth rates. It is, instead, also shaped by regional economic resilience and the quality of growth.

Table 2. AMPI Values of Economic Growth Performance of Regencies/Municipality in Bali Province from 2016–2024

Local Government	2016	2017	2018	2019	2020	2021	2022	2023	2024
Badung	102.01	102.70	102.69	105.74	92.77	100.68	104.06	102.37	98.24
Bangli	96.52	98.35	98.86	100.16	99.69	97.53	99.46	98.09	101.20
Buleleng	98.33	98.82	100.19	100.98	95.58	95.45	97.32	99.55	101.61
Gianyar	99.55	100.53	101.54	102.52	94.96	91.58	98.37	99.74	99.68
Jembrana	88.16	94.79	98.41	100.86	97.66	99.06	98.55	100.16	101.16
Karangasem	92.72	93.60	95.32	96.19	96.48	93.86	95.41	97.31	96.66
Klungkung	94.74	95.11	97.89	98.58	96.58	96.30	97.27	97.80	101.73
Tabanan	95.73	100.21	101.73	103.01	99.45	94.59	100.27	98.92	100.80
Denpasar	102.43	102.00	101.34	101.40	95.81	99.61	102.47	101.54	100.66

Based on the AMPI values shown in Table 2, Bangli Regency exhibits distinctive characteristics compared to other regencies and municipalities in Bali Province. Bangli Regency consistently falls within the middle-performance group throughout the entire observation period. The AMPI values for Bangli Regency do not display extreme

fluctuations, either in the form of sharp declines or substantial increases; thereby indicating a relatively stable pattern of economic growth performance over time. The economic growth performance of regencies and municipalities in Bali Province was analyzed dynamically by examining year-to-year changes in index values. These annual changes reflected shifts in relative regional economic growth performance, with periods of improvement, contraction, or stability. This dynamic approach enabled the identification not only of performance levels but also of the intensity of change and regional responses to evolving economic conditions over time.

Annual changes in regional economic growth performance are measured using differences in AMPI values (ΔAMPI). A positive ΔAMPI indicated an improvement in relative performance compared to the previous year, whereas a negative value signified a deterioration in performance. The magnitude of ΔAMPI reflected the intensity of performance change: relatively small values indicated performance stability, while larger values suggested significant shocks or substantial performance shifts. Table 3 showed annual dynamics of economic growth performance across regencies and the municipality in Bali Province over the 2016–2024 period.

Table 3. Annual Dynamics of Economic Growth Performance of Regencies/Municipality in Bali Province from 2016–2024

Local Government	2017-2016	2018-2017	2019-2018	2020-2019	2021-2020	2022-2021	2023-2022	2024-2023
	Δ1	Δ2	Δ3	Δ4	Δ5	Δ6	Δ7	Δ8
Badung	0.69	-0.01	3.05	-12.96	7.91	3.38	-1.68	-4.13
Bangli	1.84	0.51	1.30	-0.47	-2.16	1.93	-1.37	3.11
Buleleng	0.49	1.36	0.79	-5.40	-0.13	1.87	2.23	2.07
Gianyar	0.98	1.01	0.98	-7.56	-3.39	6.80	1.36	-0.06
Jembrana	6.63	3.62	2.45	-3.19	1.40	-0.51	1.61	0.99
Karangasem	0.88	1.72	0.87	0.29	-2.62	1.55	1.90	-0.65
Klungkung	0.37	2.78	0.68	-1.99	-0.28	0.97	0.53	3.93
Tabanan	4.48	1.52	1.28	-3.56	-4.86	5.68	-1.35	1.88
Denpasar	-0.43	-0.66	0.06	-5.60	3.80	2.86	-0.94	-0.87

To obtain a better-structured overview of economic growth performance across different phases of the COVID-19 pandemic, the annual performance changes were subsequently aggregated into average performance changes by analytical period: pre-pandemic, pandemic, and post-pandemic. This averaging procedure aimed to filter out short-term fluctuations and to highlight dominant performance patterns characterizing each phase, thereby enabling systematic comparisons of performance across regions and periods. The summary of average changes in economic growth performance for regencies and municipalities in Bali Province by phase is shown in Table 4 below.

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

Table 4. Average Changes in Economic Growth Performance of Regencies/Municipalities in Bali Province

Local Government	Pre–Covid-19 Period	During Covid-19 Period	Post–Covid-19 Period
Badung	1.243	-2.528	-0.812
Bangli	1.215	-1.315	1.224
Buleleng	0,882	-2.765	2.053
Gianyar	0,991	-5.473	2.702
Jembrana	4.233	-0,897	0.698
Karangasem	1.157	-1.164	0.933
Klungkung	1.279	-1.138	1.808
Tabanan	2.428	-4.209	2.070
Denpasar	-0.342	-0.895	0.350

The results indicated that, prior to the COVID-19 pandemic, Jembrana Regency recorded the highest average economic growth among regencies and municipalities in Bali Province, as reflected in its relatively higher AMPI scores. This finding suggested that the interaction between local government spending on general public services, education, and health functions, poverty dynamics, and GRDP growth in Jembrana Regency was more effective and coordinated than in other regions. Before the pandemic, Jembrana's economic growth performance was driven not merely by the magnitude of government spending, but more importantly, by the quality of fiscal management and the consistency of expenditure orientation toward basic public service functions. Jembrana Regency was one of the regions that implemented bureaucratic reform and local public financial governance reforms relatively early and consistently. These reforms encompassed organizational streamlining, improvements in spending efficiency, enhancement of civil servant capacity, and a strong emphasis on the provision of basic public services (Ikhwan, 2019). Consistent with this finding, previous studies indicated that public social spending, particularly in education, health, and social protection, positively influences economic growth, especially when supported by a high level of government effectiveness. Within this framework, government effectiveness serves not only a direct role in fostering economic growth, but also as a mediating factor that amplifies the impact of social government spending on economic performance (Cooray & Nam, 2025).

In contrast, during the pre–Covid-19 period, Denpasar Municipality recorded the lowest average economic growth among Bali Province's regencies. This outcome reflected the characteristics of an urban economic structure that has reached maturity. As the provincial center of government, trade, and services, the structure of local government spending in Denpasar Municipality was dominated by operational and maintenance expenditures, which serve to maintain the stability of public services and the urban economy. However, such spending showed lower growth leverage than development-oriented government spending in regions still in an expansionary phase. The impact of

urban agglomeration on economic performance is inherently contextual. In regions with high levels of agglomeration and relatively established economic structures, additional government spending and increased economic activity do not necessarily generate strong short-term growth acceleration (Maket et al., 2024). Similarly, the effects of development institutions on economic growth are context-dependent and strongly influenced by regional structural characteristics. The evidence from a study of 239 cities in China indicated how the contribution of universities to innovation and economic growth was region-specific and more pronounced in areas with particular structural attributes, implying that additional development inputs do not automatically translate into high growth acceleration in economically mature cities (Peng & Xu, 2024).

Therefore, the differences in economic growth performance between Jembrana Regency and Denpasar Municipality during the pre-pandemic period reflected variations in development stages and regional structural characteristics. Jembrana Regency, as a region still undergoing consolidation and expansion, has proven able to utilize public spending more effectively as an effective growth-enhancing instrument. In contrast, Denpasar Municipality, which exhibits a more stable performance pattern but with a relatively lower growth rate, has reflected the characteristics of a mature urban economy. These findings imply that interpreting regional economic growth performance must account for structural context and development stages, and therefore cannot be uniformly applied across regions.

During the COVID-19 pandemic, the economic growth performance of regencies and municipalities in Bali Province generally contracted substantially. AMPI values across all regions recorded negative changes, reflecting a deterioration in economic growth performance driven by a sharp decline in GRDP growth rates and heightened socioeconomic pressures. This finding confirmed that the COVID-19 pandemic constituted a systemic external shock capable of fundamentally altering both the pattern and relative ranking of regional economic growth performance. Although all regions were adversely affected, the magnitude of contraction in economic growth performance varied considerably across regencies and municipalities. Jembrana Regency continued to record a relatively better average economic growth performance than most other regions. The most striking finding during this pandemic period is the shift observed in Denpasar Municipality, which recorded the highest average economic growth performance compared to all regions, in contrast to its position in the pre-pandemic period. This shift indicated that the pandemic has not only suppressed overall economic performance but also reshaped the structure of relative regional advantages.

Denpasar Municipality's economic growth performance during the pandemic was supported by its capacity to maintain relatively higher per capita income levels than other regencies in Bali Province. Based on changes in income per capita over the 2019–2021 period, Denpasar exhibited the most distinct trajectory among the regions. Even though contraction was experienced during the initial phase of the pandemic, Denpasar was still among the fastest ones to register a positive turnaround in income per capita. This evidence was aligned with international regional studies stating that economic crises do not

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

merely reduce growth rates, but also reconfigure relative regional positions through shifts in income dynamics per capita (Mendoza-González et al., 2024). Denpasar Municipality possesses a more diversified and adaptive economic base structure, which enabled it to sustain economic performance even under severe pressures imposed by the COVID-19 pandemic (Shara, 2021). The Denpasar Municipal Government introduced the Pandemic Incubation Program (PIP) as a business-based fiscal stimulus initiative aimed at supporting local economic actors (Arsa et al., 2021). Rapid and well-targeted fiscal policy responses were a critical determinant of both the depth of economic contraction and the speed of recovery during pandemic-induced crises. The sudden and asymmetric nature of the COVID-19 recession required responsive fiscal interventions to stabilize economic activity and accelerate the rebound process (Auerbach et al., 2022).

Gianyar Regency was recorded as the region with the lowest average economic growth during the COVID-19 pandemic. This region has experienced a significant economic contraction due to its high dependence on the tourism sector. With tourism contributing nearly 90 percent of local own-source revenue, any disruptions to tourist mobility have directly translated into a sharp deterioration in regional economic performance (Yasintha et al., 2022). Tourism is widely recognized as one of the economic sectors that is most vulnerable to external disruptions, especially by global health crises and mobility restrictions (Aldao et al., 2025). High dependence on tourism renders tourism-based regions extremely susceptible to external shocks (Wickramasinghe & Naranpanawa, 2023)This is clearly reflected in the severe economic contraction experienced by Gianyar Regency during the COVID-19 pandemic.

The AMPI results show that Gianyar Regency had the strongest economic growth during the recovery phase, reflecting a successful rebound after a severe COVID-19 contraction. This suggests that heavily affected regions can recover well if supported by targeted fiscal policies and productive public investment. Gianyar used government spending effectively, especially in public services and health, and benefited from the National Economic Recovery (PEN) program to build hospitals, markets, and public spaces. These investments improved services and boosted local economic activity. Thus, fiscal success depends not only on the size of spending but also on its quality, long-term benefits, and social impact (Langston & Crowley, 2022).

In contrast, Badung Regency recorded the weakest post-pandemic growth, despite having the highest local revenue and serving as a tourism hub. This indicates that strong fiscal capacity does not guarantee better growth. A slowdown in transportation and warehousing—an important non-tourism sector—contributed to this outcome (BPS, 2025; Puspitasari & Sudharma, 2025). Post-pandemic recovery often includes initial growth followed by slowing due to economic adjustments (Efthimiou, 2025), with longer-term impacts emerging over time (Wang et al., 2023). Overall, recovery quality depends not only on fiscal strength or sectoral advantages but also on how well governments shift from stimulus to sustainable growth. This study highlights that AMPI better captures recovery dynamics and sustainability than GRDP alone.

CONCLUSION

This study finds that economic growth across regencies and municipalities in Bali Province is dynamic and varies by region and time. Before the pandemic, regions with better-managed government spending showed stronger growth. During the COVID-19 pandemic, all regions experienced economic contraction, with shifts in performance rankings reflecting differences in local economic resilience. After the pandemic, areas that suffered the most severe declines tended to recover the fastest. Interestingly, regions with greater fiscal capacity did not always achieve the best recovery outcomes. Overall, the results suggest that regional economic performance cannot be measured solely by GRDP growth. Instead, it should be viewed as a multidimensional concept that balances economic growth, the quality of public spending, and broader socio-economic conditions.

Local governments need to strategically direct public spending toward basic service functions that have improved regional economic resilience and can maintain stable economic growth performance. This objective can also be achieved by promoting diversification of regional economic structures as a primary policy strategy to reduce dependence on sectors highly vulnerable to external shocks, particularly in tourism-based regions. In addition, strengthening coordination between the central and local governments is essential to prevent policy overlap, enhance the synergy of development programs, and maximize the impact of public spending on economic recovery and the sustainability of regional economic growth.

REFERENCES

Afonso, A., & Alves, J. (2025). Does government spending efficiency improve fiscal sustainability? *European Journal of Political Economy*, *90*. https://doi.org/10.1016/j.ejpoleco.2023.102403

Aldao, C., Blasco, D., & Poch Espallargas, M. (2025). Lessons from COVID-19 for the Future: Destination Crisis Management, Tourist Behaviour and Tourism Industry Trends. *Journal of Tourism Futures*, *11*(3), 406–420. https://doi.org/10.1108/JTF-02-2022-0059.

Antolin-Diaz, J., & Surico, P. (2025). The Long-Run Effects of Government Spending. *American Economic Review*, *115*(7), 2376–2413. https://doi.org/10.1257/aer.20231278.

Anwar, A., Hyder, S., Mohamed Nor, N., & Younis, M. (2023). Government Health Expenditures and Health Outcome Nexus: A Study on OECD Countries. *Frontiers in Public Health*, *11*(18). https://doi.org/10.3389/fpubh.2023.1123759.

Ariyani, N., & Fauzi, A. (2024). Measuring The Resilience of Rural Tourism in Indonesia Using the Adjusted Mazziotta-Pareto Index. *Journal of Infrastructure, Policy and Development*, *8*(4), 1–25. https://doi.org/10.24294/jipd.v8i4.3467.

Arsa, I. K. S., Widiastini, N. M. A., & Koma, F. Y. I. (2021). Strategi Bertahan Masyarakat Denpasar Pada Masa Pandemi Covid-19 (Studi Pada Penerima Program Stimulus PIP 2). *Jurnal Kewirausahaan dan Bisnis*, *26*(2), 137–150. https://doi.org/10.20961/jkb.v26i2.54311.

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

Auerbach, A., Gorodnichenko, Y., McCrory, P. B., & Murphy, D. (2022). Fiscal Multipliers in the COVID19 Recession. *Journal of International Money and Finance*, *126*, 102669. https://doi.org/10.1016/j.jimonfin.2022.102669.

Balasubramanian, P., Burchi, F., & Malerba, D. (2023). Does Economic Growth Reduce Multidimensional Poverty? Evidence from Low- and Middle-Income Countries. *World Development*, *161*, 106119. https://doi.org/10.1016/j.worlddev.2022.106119.

BPS. (2025). *Produk Domestik Regional Bruto Provinsi Bali Menurut Lapangan Usaha 2020–2024*. Jakarta: BPS.

Coman (Nuţă), A. C., Lupu, D., & Nuţă, F. M. (2023). The Impact of Public Education Spending on Economic Growth in Central And Eastern Europe. An ARDL Approach with Structural Break. *Economic Research-Ekonomska Istraživanja*, *36*(1), 1261–1278. https://doi.org/10.1080/1331677X.2022.2086147.

Cooray, A., & Nam, Y. S. (2025). Public Social Spending, Government Effectiveness, and Economic Growth: An Empirical Investigation. *Applied Economics*, *57*(1), 52–66. https://doi.org/10.1080/00036846.2024.2302933.

Dariwardani, N. M. I., Suardana, I. W., Sunarta, I. N., Mananda, I. G. P. B. S., & Cahyanto, I. (2025). Resilience in Bali's Accommodation Businesses Amidst the COVID-19 Pandemic: A Survival Analysis. *Jurnal Kajian Bali*, *15*(1), 173–203. https://doi.org/10.24843/JKB.2025.v15.i01.p07.

DJPK. (2025). *Realisasi APBD Belanja per Fungsi*. 2025. Retrieved from: https://djpk.kemenkeu.go.id/?p=5412

Efthimiou, S. G. (2025). The Trends of Tourism Sector After Covid-19 Period: A Study of Strategy and Implications. *Corporate and Business Strategy Review*, *6*(1), 119–133. https://doi.org/10.22495/cbsrv6i1art12.

Emeru, G. M. (2023). Effect of Public Expenditure on Economic Growth in the Case of Ethiopia. *Scientific World Journal*, *1,* 9305196. https://doi.org/10.1155/2023/9305196.

Fitriady, A., Silvia, V., & Suriani, S. (2022). Does Economic Growth Mediate Investment, Inflation, and Human Development Investment on Poverty in Indonesia? *Signifikan: Jurnal Ilmu Ekonomi*, *11*(2), 437–456. https://doi.org/10.15408/sjie.v11i2.26145.

Ikhwan, K. (2019). Deskripsi Reformasi Birokrasi Dalam Pelayanan Publik di Kabupaten Jembrana, Provinsi Bali. *Ensiklopedia of Journal*, *2*(1), 26–35. https://doi.org/10.33559/eoj.v1i5.306.

Kitole, F. A., Msoma, L. J., & Sesabo, J. K. (2024). Navigating the Economic Landscape: A Comprehensive Analysis of Government Spending, Economic Growth, and Poverty Reduction Nexus in Tanzania. *Applied Economics Letters*, *32*(9), 1306–1310. https://doi.org/10.1080/13504851.2024.2302902.

Langston, C., & Crowley, C. (2022). Fiscal Success: Creating Quality Infrastructure in a Post-COVID World. *Sustainability*, *14*(3), 1642. https://doi.org/10.3390/su14031642.

Lazar, D., & Litan, C. M. (2022). Regional Well-being in Romania: Assessment After a Decade of EU Accession. *International Journal of Social Economics*, *49*(7), 1009–1028. https://doi.org/10.1108/IJSE-08-2021-0480.

Lin, B., & Zhou, Y. (2022). Measuring the Green Economic Growth in China: Influencing Factors and Policy Perspectives. *Energy*, *241,* 122518. https://doi.org/10.1016/j.energy.2021.122518.

Maket, I., Szakalne Kano, I., & Vas, Z. (2024). Urban Agglomeration and Regional Economic Performance Connectedness: Thin Ice In Developing Regions. *Research in Globalization*, *8*, 100211. https://doi.org/10.1016/j.resglo.2024.100211.

Mazziotta, M., & Pareto, A. (2022). Weighting in Composit Indices Construction: The Case of the Mazziotta-Pareto Index. *Rivista Italiana Di Economia Demografia e Statistica*, *76*(4), 17–26.

Melati, A. P. S., & Sihaloho, E. D. (2025). The Future of Health Expenditure in ASEAN Countries: A Forecasting Analysis with ARIMA. *Signifikan: Jurnal Ilmu Ekonomi*, *14*(2). https://doi.org/10.15408/sjie.v14i2.46420.

Mendoza-González, M. Á., Quintana-Romero, L., & Guerrero-Jiménez, A. (2024). Regional Per Capita Income Inequality and Fiscal Policy in Mexico, 1989–2021. *The Annals of Regional Science*, *73*(4), 1681–1699. https://doi.org/10.1007/s00168-024-01312-y.

Murti, P. P. I., Siregar, H., & Sugema, I. (2023). Impacts of Covid-19 Pandemics and Wealth on Household Consumption in Java Island. *Signifikan: Jurnal Ilmu Ekonomi*, *12*(2), 371–382. https://doi.org/10.15408/sjie.v12i2.32336.

Naseer, S., Khalid, S., Parveen, S., Abbass, K., Song, H., & Achim, M. V. (2023). COVID-19 Outbreak: Impact on the Global Economy. *Front. Public Health*, *5,* 1009393. https://doi.org/10.3389/fpubh.2022.1009393.

Nofrianto, N., Muliana, Y., & Cahyadi, A. (2021). The Impact of Islamic Bank Financing, Government Spending, and Investment on Economic Growth in Indonesia. *Signifikan: Jurnal Ilmu Ekonomi*, *10*(2), 299–310. https://doi.org/10.15408/sjie.v10i2.20469.

Peng, C., & Xu, H. (2024). Universities and Cities: The Impact of Higher Education on Urban Innovation, Entrepreneurship, and Economic Growth. *Asian Economic Papers*, *23*(2), 33–56. https://doi.org/10.1162/asep_a_00890.

Poku, K., Opoku, E., & Agyeiwaa Ennin, P. (2022). The Influence of Government Expenditure on Economic Growth in Ghana: An ARDL Approach. *Cogent Economics & Finance*, *10*(1), 2160036. https://doi.org/10.1080/23322039.2022.2160036.

Prameswari, A., Muljaningsih, S., & Asmara, K. (2021). Analisis Pengaruh Kemiskinan, Indeks Pembangunan Manusia (IPM) dan Tenaga Kerja terhadap Pertumbuhan Ekonomi di Jawa TimuR. *Jurnal Ekonomi Pembangunan STIE Muhammadiyah Palopo*, *7*(2), 75-90. https://doi.org/10.35906/jep.v7i2.909.

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226

Puspitasari, S. I. D., & Sudharma, I. W. P. A. (2025). Pengaruh Sektor Basis Non Pariwisata, Pendidikan dan UMK terhadap Penyerapan Tenaga Kerja di Provinsi Bali. *Ekonomi dan Bisnis Universitas Udayana*, *14*(10), 1475–1492.

Sardoni, C. (2024). Public Spending and Growth: A Simple Model. *Structural Change and Economic Dynamics*, *69*, 56–62. https://doi.org/10.1016/j.strueco.2023.12.002.

Scaccabarozzi, A., Mazziotta, M., & Bianchi, A. (2022). Measuring Competitiveness: A Composite Indicator for Italian Municipalities. *Social Indicators Research*, *173*(1), 53–82. https://doi.org/10.1007/s11205-022-02990-x.

Shaddady, A. (2022). Is Government Spending an Important Factor in Economic Growth ? Nonlinear Cubic Quantile Nexus from Eastern Europe and Central Asia (EECA). *Economies*, *10*(11), 286. https://doi.org/10.3390/economies10110286.

Shara, A. R. I. D. (2021). Analysis of Basic and Non-Basic Sectors in Denpasar City in the Middle of the Covid-19 Pandemic Era. *Sustainability (STPP) Theory, Practice and Policy*, *1*(2), 154–172. https://doi.org/10.30631/sdgs.v1i2.1012.

Supratiyoningsih, L., & Yuliarmi, N. N. (2022). Pengaruh Investasi, Pengeluaran Pemerintah, dan Tenaga Kerja Terhadap Pertumbuhan Ekonomi dan Tingkat Kemiskinan di Provinsi Bali. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, *11*(1), 1-10. https://doi.org/10.24843/eeb.2022.v11.i01.p01.

Wang, J., Cui, M., & Chang, L. (2023). Evaluating Economic Recovery by Measuring the COVID-19 Spillover Impact on Business Practices: Evidence from Asian Markets Intermediaries. *Economic Change and Restructuring*, *56*(3), 1629–1650. https://doi.org/10.1007/s10644-023-09482-z.

Wickramasinghe, K., & Naranpanawa, A. (2023). Tourism and COVID-19: An Economy-Wide Assessment. *Journal of Hospitality and Tourism Management*, *55*, 131–138. https://doi.org/10.1016/j.jhtm.2023.03.013.

Yasintha, P. N., Gelgel, N. M. R. A., Sukadi, B. D. N. R., Sari, N. P. M., & Pinatih, D. A. A. I. (2022). Resiliensi Pemerintah Kabupaten Gianyar dalam Mewujudkan Pariwisata Berkelanjutan di Tengah Pandemi Covid-19. *Jurnal Transformative*, *8*(1), 57–80. https://doi.org/10.21776/ub.transformative.2022.008.01.3.

Yulianita, A., Ramadhan, D. R., & Mukhlis, M. (2023). Factors Affecting Economic Growth in Indonesia. *Signifikan: Jurnal Ilmu Ekonomi*, *12*(2), 245–262. https://doi.org/https://doi.org/10.15408/sjie.v12i2.31186.

Zhu, Y., Bashir, S., & Marie, M. (2022). Assessing the Relationship between Poverty and Economic Growth: Does Sustainable Development Goal Can be Achieved? *Environmental Science and Pollution Research*, *29*(19), 27613–27623. https://doi.org/10.1007/s11356-021-18240-5.

Ziberi, B. F., Rexha, D., Ibraimi, X., & Avdiaj, B. (2022). Empirical Analysis of the Impact of Education on Economic Growth. *Economies*, *10*(4), 89. https://doi.org/10.3390/economies10040089.

Zubir, E., Hartono, D., Robiansyah, A., & Kharis, S. A. A. (2023). Pengaruh Realisasi Angaran Kesehatan, Anggaran Pendidikan dan Pariwisata Terhadap Penanggulan Kemiskinan di Provinsi Jawa Barat. *Jurnal Ilmiah Ekonomi Dan Bisnis*, *11*(2), 1397–1404.

http://journal.uinjkt.ac.id/index.php/signifikan
https://doi.org/10.15408/sjie.v15i1.50226