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Study of Economic Potential and Economic Development Strategies in Bone Bolango Regency

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Abstract: This research seeks to ascertain the economic potential of Bone Bolango Regency and provide an appropriate development plan for economic advancement. This research utilizes the Gross Regional Domestic Product (GRDP) of Bone Bolango Regency and Gorontalo Province from 2019 to 2023, using the analyses of Location Quotient (LQ), Dynamic Location Quotient (DLQ), and Shift Share. This study's findings suggest that Bone Bolango Regency has a viable economic sector for development, characterized as a base sector with promising potential and a superior competitive advantage, namely in the Mining and Quarrying sector, as well as the Construction sector. The method used to enhance economic growth in Bone Bolango Regency involves industrial development that emphasizes key industries with promise.

Keyword: Economic Potential, Regional Economic Growth, Regional Development

INTRODUCTION

Economic development is a process that seeks to enhance economic production while also facilitating structural reform within society to promote equitable welfare expansion. According to (Todaro & Smith, 2009) Economic development encompasses three primary objectives: (1) enhancing the availability and distribution of essential resources, (2) elevating the standard of living via increased incomes, improved education, and broader access to public services, and (3) augmenting economic and social options for individuals and societal groups. In this framework, development prioritizes enhancing the quality of life above simply quantitative economic growth.

Inclusive and fair economic growth is a crucial requirement for attaining sustainable development. At the regional level, economic development has a strategic component as it signifies the efficacy of regional autonomy in harnessing local potential to enhance community welfare (Todaro & Smith, 2009). Nonetheless, development patterns lacking equity might generate differences across areas. Vaulina and Liana (Vaulina & Liana, 2015) stressed that the efficacy of economic development is not just measured by elevated growth rates, but also by its capacity to diminish income inequalities among people, regions, and sectors.

The developmental discrepancy of areas is frequently based on intrinsic variations in natural resources, population compositions, and the institutional and budgetary capabilities of each region. Sjafrizal (Tarigan, 2024). Noted that this variety fosters the establishment of places undergoing rapid growth (development regions) while simultaneously creating others that are underperforming (underdevelopment regions). This disparity poses a significant problem for emerging autonomous areas, which often encounter constraints regarding human resources, infrastructure, and financial capability. (Kuncoro, 1997) (World Bank, 2020).

Research conducted by Firman (Firman, 2009) and Hudalah (Mulya et al., 2024) Indicates that the fiscal decentralization strategy has not effectively promoted developmental convergence across regions, particularly in locations outside Java. A development plan centered on local superior potential (endogenous development) is seen as vital for reconciling growth with equity. (Rodríguez-Pose, 2013). Moreover, the Ministry of National Development Planning (Kementerian PPN/Bappenas, 2020) The significance of an adaptable regional development strategy in addressing global issues, including climate change and digital transformation. This policy must be complemented by enhancing regional governance and fostering cooperation among stakeholders, as indicated by ADB. (World Bank, 2020) And OECD (Decentralization to Promote Regional Development in Indonesia, 2017).

Bone Bolango Regency in Gorontalo Province, which attained autonomous status on May 16, 2003, exemplifies a territory with such developmental challenges. As a region emerging from expansion, the need to reformulate development methods is crucial to guarantee that economic progress prioritizes not just quantitative metrics but also establishes a platform for budgetary autonomy and sustainable distribution of communal welfare. (Tarigan, 2004).

This study exhibits notable distinctions from prior research that similarly investigated the economic potential and development plans in Bone Bolango Regency. A prior research by Wirdawati (Yusuf et al., 2024), only examined the growth of the Puncak Bulotalangi tourist attraction using a SWOT analysis. The emphasis is confined to sector-specific elements and individual locations, neglecting the broader implications for regional economic development, particularly for economic growth, equality, and poverty reduction.

Similarly, a study by Muhammad Yusuf Zulfikar Paudi (Paudi et al., 2022) Investigate the approach of enhancing coastal tourism to augment the revenue of coastal people. This research, although beneficial in a microeconomic setting, does not address structural challenges of regional development, including regional inequities, growth inequality, or methods for post-regional expansion development. The study is mostly technical and pragmatic, focusing only on augmenting the income of certain groups while neglecting a complete approach to regional development planning.

Conversely, the study conducted by Idris Yanto Niode and Endi Rahman ((Niode & Rahman, 2022). Has broadened the framework by formulating the Pogambango-Hepta Helix model for the advancement of MSMEs rooted in the creative economy and marine tourism. Despite being more integrative, the strategy remains confined to the MSME and tourist sectors, emphasizing institutional synergy and destination branding. The research has not explicitly addressed the difficulties of the post-expansion regional economy, including static poverty rates and regional budgetary reliance.

This study adopts a more comprehensive and profound approach. Identifying sectoral and local economic potential while directly correlating it with the dynamics of macroeconomic growth in Bone Bolango Regency, including the difficulties of poverty and developmental disparity across areas. This study primarily aims to build a comprehensive and sustainable economic growth plan, based on the assessment of sectoral and geographical potential, and aimed at achieving regional fiscal autonomy as a consequence of expansion.

This research is distinctive in three respects: (1) its macro and cross-sectoral perspective, (2) its emphasis on post-expansion regional economic development, and (3) its

focus on devising development strategies grounded in empirical socio-economic data, which has not been a central focus in prior studies. This study aims to provide a significant contribution to regional economic development planning, particularly with Bone Bolango as a nascent district, establishing the basis for its economic autonomy.

This study's originality is in its integrated methodology for geographically and sectorally identifying and mapping regional economic potential, thereby connecting it to the creation of measures aimed at regional autonomy. This research adopts a strategic approach centered on local potential, which has been largely overlooked in the context of post-expansion regional development, particularly in Bone Bolango Regency, in contrast to other studies that are either descriptive or macro in scope.

This research seeks to provide scientific contributions toward the formulation of contextual and sustainable economic growth methods. By selecting prospective economic sectors and establishing development objectives based on regional potential and ability, Bone Bolango Regency aims to cultivate robust, inclusive economic independence and address the difficulties of developmental disparity that have persisted to date.

METHOD

This research employs descriptive and quantitative data analysis approaches. The descriptive technique is used to assess the status of the Bone Bolango Regency region and the extent of developmental outcomes. Simultaneously, the quantitative approach employs the Location Quotient (LQ) method to assess the economic potential within the sub-districts of Bone Bolango Regency, the Dynamic Location Quotient (DLQ) method to evaluate the prospective leading sectors, and the shift-share analysis method to compare the economic growth rate of Bone Bolango Regency with broader regions, specifically Gorontalo Province.

This research seeks to ascertain the regional economic potential and devise economic development measures to attain developmental autonomy in Bone Bolango Regency. The identification procedure employs a geographical and sectoral methodology, including the examination of economic development hubs and the mapping of regional resource potential. The primary emphasis is on pinpointing the foundational sectors that substantially influence the regional economic framework and possess potential for advancement as leading sectors in the medium to long term. Additionally, based on the findings of this identification, alternative strategies and objectives for regional economic growth are methodically established with a focus on sustainability.

This research employs a methodology that integrates descriptive and quantitative-comparative techniques. The descriptive technique evaluates socio-economic circumstances and development levels in Bone Bolango Regency using macro and sectoral variables. This technique aligns with the perspective of Sugiyono. (Sugiyono & Lestari, 2021). The descriptive approach seeks to methodically, factually, and properly depict current situations.

A quantitative methodology is used to assess and evaluate the contributions of economic sectors and their competitiveness across regions. The quantitative analysis approaches used encompass:

1. Location Quotient (LQ) Analysis

Location Quotient (LQ) analysis is a quantitative technique used to identify fundamental or dominant sectors within a region's economy. LQ quantifies the degree of a sector's contribution to a specific area relative to the average contribution of that sector in a reference region, such as the provincial level.

If the LQ value exceeds 1, the sector is deemed a fundamental sector due to its contribution above the average of the reference area. If LQ < 1, the sector is not considered fundamental due to its comparatively lesser contribution. This strategy is crucial for identifying priority sectors in regional economic development programs since it effectively demonstrates

the comparative advantage of a sector within a region. As to (Isserman, 1977) The formula used in the LQ technique may be articulated as follows:

$$LQ = \frac{(Xia)/(RVa)}{(Xi)/(Rv)}$$

LQ = Location Quotient

coefficient

sector i in area a

Xia = GRDP sector i in region a Xi = GRDP sector i at the level

province/regional

reference a

RVa = total regional GDP a RV = total GDP at the level

province/regional

reference a

2. Dynamic Location Quotient (DLQ) Analysis

The Dynamic Location Quotient (DLQ) study is an advancement of the Location Quotient (LQ) approach that takes into account the growth rate of economic sectors over time. DLQ is used to discover the economic sectors with the potential for future superiority. This technique juxtaposes the development of a specific sector in a region (such as a district) with the growth of the same sector in a reference area (such as a province), while considering the overall economic growth in each region. Should the DLQ value exceed 1, the sector is regarded as promising and merits prioritization in a long-term economic development plan. The DLQ approach may be articulated by the following formula:

3. Shift Share Analysis

Shift-share analysis is a technique for assessing a region's productivity and economic development by juxtaposing it with a broader area. In this sense, Bone Bolango Regency is juxtaposed with Gorontalo Province as a reference region.

The shift-share approach categorizes regional economic growth into three main components. The National Share (N) indicates the extent to which regional growth is affected by overarching national or provincial patterns. The Proportional Shift (P) quantifies the comparison of a sector in Bone Bolango to that of the reference province, illustrating the effects of industrial mix. Simultaneously, the Differential Shift (D) reflects local competitive

Y*ii - Yii

Gij

advantage, demonstrating the performance of a sector in comparison to its regional counterparts.

This technique utilizes Gross Regional Domestic Product (GRDP) data from 2021 and 2022 to provide an extensive analysis of the elements that promote or hinder sectoral development at the district level. In this study, if GRDP is denoted as (y), the formula may be elucidated as follows:

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Here + There + There
Nij
           Yii . rn
Pii
      =
           Yij (rin - rn)
           Yij (rij - rin)
Dij
Information:
                  Nine economic sectors were studied.
                  The area studied is (Bone Bolango Regency.
j
Yij
                  GRDP from sector i in region j at the beginning of the analysis
                  year (Bone Bolango Regency)
                  GRDP from sector i in region j at the end of the analysis year
Y*ii
                  (Bone Bolango Regency)
                  Growth rate of GRDP sector i in region j (Bone Bolango
r ij
                  Regency)
r in
                  Growth rate of the GRDP sector i in region n (Gorontalo
                  Province)
                  Average GDP growth rate in region n (Gorontalo Province)
rn
Gii
                  Total GDP Growth of Bone Bolango Regency
                  National Share component or GRDP growth value of sector I in
Nij
                  region j (Bone Bolango Regency)
Pij
                  Proportional Shift Component or industrial mix of sector i in
                  region j (Bone Bolango Regency)
                  Differential Shift Component or Competitive Advantage of
Dij
                  Sector i in Region j (Bone Bolango Regency)
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RESULT AND DISCUSSION

Regional economic development is a complex process that requires not just production growth but also the enhancement of sectoral structures, local competitiveness, and the mitigation of regional imbalances. Consequently, a growth strategy grounded on exceptional potential is essential. This approach underscores that each area has distinct sectoral features and cannot be generalized into a uniform national plan. (Salsabila et al., 2024).

This research employs the Economic Base Theory, which posits that regional development is contingent upon the base sector that generates commodities and services for external markets. The LQ and DLQ methodologies identify mining and construction as the primary industries driving the local economy. (Böventer, 1975). This conclusion is corroborated by regional studies, including those in Polewali Mandar Regency, where the building and commerce industries significantly contribute to the post-expansion GRDP (Marsella et al., 2023).

The Shift-share methodology is used to assess local competitive advantage in the parent area, Gorontalo Province. This strategy is pertinent in assessing whether sector development is really attributable to local competitiveness or just a reflection of national trends. (Kuncoro, 2018) (Armstrong et al., 2000). Within Bone Bolango Regency, the construction and mining

industries have elevated LQ and DLQ values, accompanied by favorable differential shifts, signifying competitive advantages that need optimization via strategic development.

Nevertheless, the growth hypothesis articulated by Myrdal (Myrdal, 1967) And Chenery, 1959) indicates that growth does not always occur uniformly. Inequality will persist unless supported by structural intervention and the equalization of infrastructure across areas. The Bone Bolango poverty rate is constant above 15%, indicating that the expansion of the primary sector has not been equitably disseminated across all societal strata. (Ministry of National Development Planning/Bappenas, 2020).

This research employs SWOT and QSPM as strategic management tools for regional economic growth. (Pearce & Robinson, 2015). The assertive methods developed in this research, like promoting the mining industry via infrastructure investment and bolstering the agriculture sector via incentive programs, stem from a combination of internal strengths and external possibilities. This method is particularly crucial in a nascent autonomous area like Bone Bolango, which is in the process of developing its institutional capacity.

LQ and DLQ analysis of Bone Bolango Regency

One strategy to enhance economic equality and eliminate disparities between districts or cities is to examine the economic potential of an area or investigate possible sectors for development using Location Quotient (LQ) and Dynamic Location Quotient (DLQ) analysis. Table 1 presents the findings of the LQ and DLQ study for Bone Bolango Regency as follows:

Table 1. Results of LQ and DLQ Analysis of Bone Bolango Regency

No	Sector	LQ DLQ	LQ Description	DLQ Description	Final Remarks	Type
1	Agriculture, Forestry, and Fisheries	1.03 1.54	BASE	PROSPECTIVE	BASIS, PROSPECTIVE	TYPE I
2	Mining and Quarrying	1.39 3.44	BASE	PROSPECTIVE	BASIS, PROSPECTIVE	TYPE I
3	Processing industry	1.69 0.18	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III
4	Electricity and Gas Procurement	0.35 0.20	NOT A BASE	NOT PROSPECTIVE	NOT BASE, NOT PROSPECTIVE	TYPE IV
5	Water Supply, Waste Management, Waste and Recycling	0.57 0.03	NOT A BASE	NOT PROSPECTIVE	NOT BASE, NOT PROSPECTIVE	TYPE IV
6	Construction	1.12 6.13	BASE	PROSPECTIVE	BASIS, PROSPECTIVE	TYPE I
7	Wholesale and Retail Trade; Automobile and Motorcycle Repair	1.33 0.76	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III
8	Transportation and Warehousing	0.20 2.10	NOT A BASE	PROSPECTIVE	NOT BASE, PROSPECTIVE	TYPE II
9	Provision of Accommodation and Food, and Beverages	0.50 0.25	NOT A BASE	NOT PROSPECTIVE	NOT BASE, NOT PROSPECTIVE	TYPE IV
10	Information and Communication	0.58 0.06	NOT A BASE	NOT PROSPECTIVE	NOT BASE, NOT PROSPECTIVE	TYPE IV
11	Financial Services and Insurance	0.56 0.44	NOT A BASE	NOT PROSPECTIVE	NOT BASE, NOT PROSPECTIVE	TYPE IV
12	Real Estate	1.39 0.85	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III

No	Sector	LQ	DLQ	LQ Description	DLQ Description	Final Remarks	Type
13	Corporate Services	1.42	0.77	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III
14	Government Administration, Defense, and Compulsory Social Security	1.27	0.24	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III
15	Educational Services	1.15	0.33	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III
16	Health Services and Social Activities	1.47	0.70	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III
17	Other services	1.18	0.83	BASE	NOT PROSPECTIVE	BASIS, NOT PROSPECTIVE	TYPE III

Source: BPS 2023, Processed

The 2017–2022 Location Quotient (LQ) and Dynamic Location Quotient (DLQ) research for Bone Bolango Regency provides crucial economic information. The sectors were divided into four categories by contribution and growth potential. Type I sectors are fundamental and promising. These include agriculture, forestry, and fisheries, mining and quarrying, and construction. These industries are major drivers of future development due to their solid economic underpinnings and good growth patterns. Transportation and Warehousing is a Type II sector, which is not fundamental but promising. It's good DLQ score shows it might grow into a key economic foundation.

Type III sectors are fundamental but not prospective. These include manufacturing, wholesale and retail trade, auto and motorcycle repair, real estate, corporate services, government administration, defense, compulsory social security, education, health services, social activities, and other services. These industries have traditionally supported the local economy but are showing slow development, indicating a need for revival or strategic reorientation.

Finally, Type IV sectors are neither fundamental nor future. Electricity and Gas Procurement, Water Supply, Waste Management, Sanitation, Recycling, Accommodation and Food and Beverage Services, Information and Communication, and Financial Services and Insurance are included. Their weak economic basis and poor growth potential make these industries unattractive short-term regional development goals. This rating helps Bone Bolango's administration manage resources and prioritize growth in high-impact areas.

Shift-Share Analysis

Shift Share analysis is used to assess variations in economic structure and performance within Bone Bolango Regency. Table 2 presents the findings of the Shift Share study as follows:

Table 2. Results Shift-Share

				ubic 21 ite	sans sinit s	iiui e			
Sector	Grow th Rate(rij)	Provi nce Rate(r in)	Nij	Mij	Cij	Dij	Shift Differe ntial	Competitiv eness	Struct ural Shift
Agriculture , Forestry, and Fisheries	0.052	0.023	75435.7 8	31086. 309	51782.8 69	96132	Progres sive	Superior	Slower
Mining and Quarrying	0.062	0.043	3306.68	204,88 5	1447.89 2	4959	Progres sive	Superior	Faster

Sector S										
Processing industry	Sector	Rate(Rate(r	Nij	Mij	Cij	Dij	Differe	=	ural
Record R	_		0.078				33605	. ~	Superior	Faster
Supply, Waste, Sewage, 20,009 and Recycling Construction 0.141 0.057 24968.8 8976.3 45317.9 7 23 79263 Progres sive Superior Faster	and Gas Procureme	0.087	0.061	61,464	29,052	35,686	126	_	Superior	Faster
Not Slower Superior Faster	Supply, Waste, Sewage, and	0.009	0.021	62,841	30,039	-47,326	-15	Progres		Slower
& Retail Trade 0.151 O.093 33628.6 of 625 37/33. 42088.6 of 625 113451 of 625 Progres sive Superior Faster Transportat ion and Warehousi ng 0.114 O.073 2231.74 of 4 degree in a contract of a contr		0.141	0.057				79263		Superior	Faster
Information and O.089 O.064 O.073 O.089 O.064 O.089 O.08	& Retail	0.151	0.093				113451	_	Superior	Faster
Amount A	ion and Warehousi	0.114	0.073				5894	_	Superior	Faster
and Communic ation 0.089 0.064 3967.69 6 2155.5 99 2192.18 8 8315 Progres sive Superior Faster Financial Services and Insurance 0.018 -0.056 4886.76 5 206 11488. 206 1 2235 Progres sive Not Superior Slower Real Estate Services 0.097 0.042 5172.85 2 88. 206 211,47 8 6341.0 11725 Progres sive Superior Faster Corporate Services 0.14 0.099 256,742 328,12 9 227,566 812 Progres sive Superior Faster Governmen tom Services 0.055 0.043 17299.2 892,80 4925.38 4 23117 23117 Progres sive Superior Faster Educational Services 0.053 0.04 10487.4 4 - 365.175 3 3047.82 31347 13470 Progres sive Superior Slower Health and Social Services 0.076 0.013 89 7196.6 71 7196.6 71 25 225 21073 Progres sive Superior Slower Other Services 0.027 0.003 3375.49 6 29 71 29 22 2267 Progres sive Not Superior Slower AMOUNT 4	ation and Food, and	0.058	0.05			424,088	3217	_	Superior	Faster
Services and Insurance 0.018 -0.056 4886.76 5 206 11488 206 8836.11 1 2235 2235 sive Progres sive Not Superior Slower Real Estate 0.097 0.042 5172.85 2 8 8 6341.0 11725 8 8 8 8 6341.0 11725 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	and Communic	0.089	0.064				8315	_	Superior	Faster
Corporate Services 0.14 0.099 256,742 328,12 9 227,566 812 Progres sive Superior Faster Governmen tom Indicated Services 0.055 0.043 17299.2 892,80 4925.38 5 2 4 23117 Progres sive Superior Faster Educational Services 0.053 0.04 43 65.175 3 13470 Progres sive Superior Superior Slower Health and Social Services 0.076 0.013 11596.7 7196.6 71 16673.3 25 21073 21073 Progres sive Superior Slower Other Services 0.027 0.003 3375.49 6 29 1964.58 29 2267 Progres sive Not Superior Slower AMOUNT 1.309 0.748 213347. 11889. 194413. 419649. 419649. AMOUNT 4 2 139 134 283 556 556 56	Services and	0.018	-0.056				2235	_		Slower
Services 0.14 0.099 256,742 9 227,366 812 sive Superior Faster Governmen t Administrat ion 0.055 0.043 17299.2 892,80 4925.38 / 2 4 23117 Progres sive Superior Faster Educational Services 0.053 0.04 10487.4 / 43 - 3047.82 / 3 13470 Progres sive Superior Slower Health and Social Services 0.076 0.013 11596.7 / 7196.6 / 71 16673.3 / 25 21073 Progres sive Superior Slower Other Services 0.027 0.003 3375.49 / 6 / 29 1964.58 / 2 2267 / 2 Progres sive Not Superior Slower AMOUNT 1.309 / 44 / 2 0.748 / 2 213347. 11889. 194413. 419649. AMOUNT 4 2 139 / 134 283 / 556 556	Real Estate	0.097	0.042			6341.0	11725	Progres sive	Superior	Faster
t Administrat ion 0.055 0.043 17299.2 5 2 4 4 205.38 2 3117 23117 Progres sive Superior Superior Faster Educational Services 0.053 0.04 43 65.175 3 13470 13470 sive Progres sive Superior Slower Health and Social Services 0.076 0.013 89 7196.6 71 16673.3 25 21073 25 25 21073 21073 25 25 Progres Superior Slower Superior Slower Other Services 0.027 0.003 6 213347. 3072.7 29 2267 29 1964.58 2 2267 29 2267 2267 2267 29 Not Superior Slower AMOUNT 1.309 0.748 213347. 11889. 194413. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649. 419649.		0.14	0.099	256,742		227,566	812	_	Superior	Faster
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AMOUNT 4 2 139 134 283 556		0.027	0.003				2267			Slower
	AMOUNT			139	11889. 134	283	556			

Source: BPS 2023, Processed data

A Shift-share study shows that Bone Bolango Regency has 13 sectors with competitive advantages over the province. Manufacturing, Electricity and Gas Supply, Construction,

Wholesale and Retail Trade, Car and Motorcycle Repair, Transportation and Warehousing, Accommodation and Food and Beverage Provision, Information and Communication, Real Estate, Corporate Services, Government Administration, Defence and Compulsory Social Security, and Education Services are these sectors. In addition, 11 sectors outperform the overall economic growth rate: Agriculture, Forestry, and Fisheries; Manufacturing; Mining and Quarrying; Processing Industry; Electricity and Gas Procurement; Construction; Wholesale and Retail Trade, Car and Motorcycle Repair; Transportation and Warehousing; and Accommodation and Food. Three factors explain Bone Bolango Regency's relative economic performance: national share (Nij), which measures the impact of national economic growth on the regional economy; proportional shift (Mij), which compares a sector's performance within a region to that of a similar sector in a more prosperous region; and differential shift (Cij), which measures the regional sector's competitiveness. National growth benefits all sectors in Bone Bolango Regency via the national share (Nij) component. The proportional shift/industry mix (Mij) component is positive in 11 sectors, suggesting that the seven sectors expanded faster than comparable sectors in Bone Bolango Regency. The remaining six sectors have negative Mij values, suggesting slower growth than the Bone Bolango Regency sectors. When the differential shift/competitive advantage (Cij) component is positive, a sector has a competitive advantage. Bone Bolango Regency has a positive Cij value for most sectors except Water Supply, Waste Management, and Waste and Recycling. Growing competitive sectors may boost the area economy. LQ analysis identifies sectors with comparative advantages using sector bases, whereas shift-share analysis identifies competitive sectors in Bone Bolango Regency. Mining, quarrying, and construction are potential economic growth sectors in Bone Bolango Regency.

Alternative Strategy Formulator

1. Internal Factor Evaluation (IFE)

An internal environmental study of Bone Bolango Regency has shown many strengths and weaknesses affecting its regional economic growth. High-growth industries, particularly mining and quarrying, are notable strengths. This sector has substantial potential, shown by a Location Quotient (LQ) of 1.39 and a Dynamic Location Quotient (DLQ) of 3.44, signifying both relative strength and future growth opportunities. Furthermore, economic diversity is seen in the contributions of several industries, including agriculture, forestry, fisheries, construction, and commerce, all of which enhance the region's economic stability. Economic statistics show a steady improvement year, indicating persistent economic expansion. Critical industries like mining and construction have competitive advantages, with growth rates above the regional average.

Nonetheless, several deficiencies must be rectified in the formulation of successful development programs. Despite the rising economic development, the poverty rate remains high, measured at 15.51% in 2023. Secondly, the local economy remains significantly reliant on a limited number of major industries, notably agriculture and mining, rendering it susceptible to sectoral declines. Thirdly, industrial growth is constrained, particularly in the manufacturing sector, which has a low DLQ of 0.18, signifying unfavorable prospects. Ultimately, inadequate infrastructure in critical sectors like energy and waste management persists in obstructing comprehensive regional growth and advancement.

Table 3. Internal Factor Evaluation (IFE)

	- 000-0 0 0 - 000-0	—	()	
NO.	INTERNAL FACTORS	WEIGHT	RATING	WEIGHTED SCORE
1.	High-Growth Sectors	0.15	4	0.60
2.	Economic Diversification	0.10	3	0.30
3.	Increasing Economic Growth	0.15	3	0.45

4.	Competitive Advantage in Key	0.10	4	0.40	
	Sectors				
Total s	strength score (1-4)	0.50		1.75	
5.	High Poverty Rate	0.15	2	0.30	
6.	Dependence on Several Sectors	0.10	2	0.20	
7.	Low Industrial Development	0.15	2	0.30	
8.	Lack of Infrastructure	0.10	2	0.20	
Total v	weakness score (5-8)	0.50		1.00	
TOTA	L (strength + weakness)	1.00		2.75	
Interna	al Score (strength–weakness)			0.75	

Table 3 illustrates the internal factor evaluation (IFE) used to assess internal strengths and weaknesses in the context of economic growth. From the table, the total strength score is 1.75, which is obtained from factors such as high-growth sectors (0.60), economic diversification (0.30), increasing economic growth (0.45), and competitive advantage in key sectors (0.40). In contrast, the total weakness score is 1.00, which includes factors such as a high poverty rate (0.30), dependence on a few sectors (0.20), low industrial development (0.30), and lack of infrastructure (0.20). By adding the strength scores and subtracting the weakness scores, an internal score of 0.75 is obtained. This score indicates that despite significant strengths, internal weaknesses still need to be addressed to strengthen and improve overall economic performance.

2. External Strategic Factor Analysis

The external environmental analysis of Bone Bolango Regency reveals several opportunities and threats that influence the region's economic development strategy. On the side of **opportunities**, there is considerable potential for sectoral growth, particularly in the **transportation and warehousing** sectors, which exhibit a strong **Dynamic Location Quotient (DLQ) of 2.10**, indicating that these sectors are growing faster than the regional average and could become new economic drivers. Furthermore, the **supportive stance of government policies** targeting regional development—such as incentives for economic investment and decentralization support—provides a conducive framework for local economic expansion. **Investment in infrastructure** from both the public and private sectors also presents a vital opportunity to address existing development gaps and improve connectivity and public services. Additionally, **growing regional markets**, driven by increasing demand for goods and services within Bone Bolango and the surrounding areas, offer potential for local businesses to expand and diversify.

However, the region also faces a number of **threats** that must be carefully addressed. One significant challenge is **economic inequality**, as income and development disparities remain considerable between Bone Bolango and other, more advanced regions. The regency is also **vulnerable to external economic shocks**, including fluctuations in national or global markets that may negatively impact local sectors. **Environmental concerns** further complicate development, as the need for sustainable management of natural resources becomes increasingly urgent amidst threats of degradation and climate change. Lastly, **competition from neighboring regions**—especially those with more developed infrastructure and institutional capacity—poses a threat to Bone Bolango's ability to attract investment and retain human capital.

Table 4.External Factor Evaluation (EFE)

NO.	EXTERNAL FACTORS	WEIGHT	RATING	WEIGHTED SCORE
1.	Sectoral Growth Potential	0.20	4	0.80
2.	Supportive Government Policies	0.15	3	0.45
3.	Investment in Infrastructure	0.15	3	0.45

4.	Growing Regional Market	0.10	3	0.30	
Total op	portunity score (1-4)	0.60		2.00	
5.	Economic Inequality	0.15	2	0.30	
6.	External Economic Shocks	0.10	2	0.20	
7.	Environmental Challenges	0.10	2	0.20	
8.	Competition from Neighboring	0.05	2	0.10	
	Regions				
Total thi	reat score (5-8)	0.40		0.80	
TOTAL	(opportunity + threat)	1.00		2.80	
External	Score (opportunity–threat)			1.20	

Table 4 shows the external factor evaluation (EFE) used to assess external opportunities and threats in the context of economic growth. From the table, the total opportunity score is 2.00, which is obtained from factors such as sectoral growth potential (0.80), supportive government policies (0.45), investment in infrastructure (0.45), and growing regional markets (0.30). On the other hand, the total threat score is 0.80, which includes factors such as economic inequality (0.30), external economic shocks (0.20), environmental challenges (0.20), and competition from neighboring regions (0.10). By adding the opportunity scores and subtracting the threat scores, an external score of 1.20 is obtained. This score indicates that there are stronger external opportunities compared to the existing threats, indicating that if these opportunities are utilized well, the potential for economic growth can increase despite the external threats that must be faced.

3. Determining the Type of Strategy

Figure 1 shows the type of strategy that should be adopted based on the results of the analysis of internal and external factors. This diagram uses the X-axis to show the internal score (Strength-Weakness) and the Y-axis to show the external score (Opportunity-Threat). The coordinate points obtained from the internal score of 0.75 and the external score of 1.20 indicate the company's position in the Q1 quadrant, which indicates that an aggressive strategy is the most appropriate.

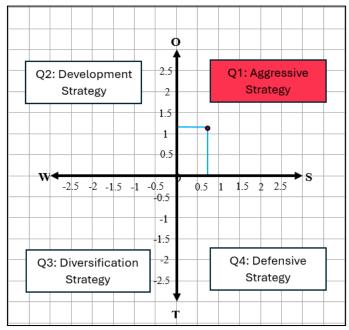


Figure 1. Determine the Strategy Type

This aggressive strategy means that Bone Bolango Regency has significant strengths and great opportunities that can be utilized for growth and expansion. In this context, the local government must focus on strengthening the growing sector, exploring the growing regional market, and attracting investment that can drive sectoral growth. This strategy is suitable for conditions where the external environment provides many opportunities that can be utilized, while the internal conditions of the organization are strong enough to support these efforts. Thus, the local government can take proactive and aggressive steps to increase its competitive advantage.

4. SWOT Matrix Design

Table 5. SWOT Matrix

Internal and External Factors	Strength	Weakness		
External ractors	S1: High-Growth Sectors	W1: High Poverty Rate		
	S2: Economic Diversification	W2: Dependence on Several Sectors		
	S3: Increasing Economic Growth	W3: Low Industrial Development		
	S4: Competitive Advantage in Key Sectors	W4: Lack of Infrastructure		
Opportunity				
O1: Sectoral Growth Potential	SO1: Develop high-growth sectors with government support and infrastructure investment to maximize sectoral growth potential.	WO1: Invest in infrastructure to support sectoral growth potential.		
O2: Supportive Government Policies	SO2: Leverage economic diversification to attract investment that will drive high sectoral growth.	WO2: Diversify the economy to reduce dependence on a few sectors.		
O3: Investment in Infrastructure	SO3: Increase access to growing regional markets for competitive sectors to enhance economic growth and equity.	WO3: Using supportive government policies to promote low-growth industrial development.		
O4: Growing Regional Markets	SO4: Use supportive government policies to strengthen high-growth sectors, particularly agriculture, forestry, and fisheries.	WO4: Increase access to growing regional markets to reduce poverty levels.		
Threat				
T1: Economic Inequality	ST1: Using competitive advantages in key sectors to reduce economic inequality.	WT1: Address high levels of poverty through targeted economic development programs.		
T2: External Economic Shocks	ST2: Implement policies to protect against external economic shocks.	WT2: Strengthen environmental management to ensure sustainable growth.		
T3: Environmental Challenges	ST3: Develop infrastructure in high- growth sectors to reduce dependence on a few sectors.	WT3: Develop mitigation strategies to protect against external economic shocks.		
T4: Competition from Neighboring Regions	ST4: Optimizing the use of local resources to address environmental challenges.	WT4: Improving local economic competitiveness to face competition from neighboring regions.		

Table 5 displays a SWOT matrix that combines internal elements (strengths and weaknesses) with external ones (opportunities and threats) to build suitable growth plans for Bone Bolango Regency. The strategic quadrant analysis indicates that the area is situated in Quadrant I (Aggressive Strategy), signifying robust internal strengths and advantageous

external possibilities. In response, many Strength-Opportunity (SO) tactics are recommended to optimize these situations.

The first strategy (SO1) involves fostering high-growth industries by synchronizing them with governmental assistance and infrastructural investment, so as to maximize their development potential. This strategy capitalizes on the region's inherent strengths in rapidly expanding industries, such as mining and construction, while aligning them with possibilities generated by enhanced infrastructure development and conducive legislative frameworks.

The second strategy (SO2) aims to leverage current economic diversity to attract wider investment, hence enhancing development across all industries. This approach combines the advantages of a broad economic foundation with external assistance from governmental efforts aimed at enhancing regional investment environments.

The third strategy (SO3) seeks to improve access to growing regional markets for competitive industries, which may substantially contribute to economic growth and equitable development. By doing so, Bone Bolango may enhance economic performance while simultaneously diminishing interregional differences via increased market integration.

The fourth strategy (SO4) underscores the need to leverage supporting government policies to strengthen high-growth industries, particularly in agriculture, forestry, and fisheries. This approach enhances the regency's competitive advantage in primary sectors while aligning with national and regional development strategies centered on sustainability and food security.

5. QSPM Matrix Design

QSPM stands for Quantitative Strategic Programming Matrix, where at this stage, the best strategy will be determined from several alternative strategies obtained in the previous stage (4 alternative S/O strategies).

Table 6. QSPM Matrix

STRATEGIC	Weigh		SO1	6. QSPN	SO2		SO3		SO4
FACTORS	ť	US	BAG	US	BAG	US	BAG	US	BAG
S1	0.15	4	0.60	3	0.45	3	0.45	4	0.60
S2	0.10	3	0.30	4	0.40	3	0.30	3	0.30
S3	0.15	4	0.60	3	0.45	3	0.45	4	0.60
S4	0.10	4	0.40	3	0.30	3	0.30	4	0.40
W1	0.15	3	0.45	4	0.60	3	0.45	3	0.45
W2	0.10	3	0.30	4	0.40	3	0.30	3	0.30
W3	0.15	2	0.60	3	0.45	4	0.60	3	0.45
W4	0.10	3	0.40	3	0.30	4	0.40	3	0.30
01	0.20	4	0.80	3	0.60	4	0.80	4	0.80
O2	0.15	4	0.60	3	0.45	4	0.60	4	0.60
03	0.15	4	0.60	3	0.45	4	0.60	4	0.60
04	0.10	3	0.40	3	0.30	4	0.40	3	0.30
T1	0.15	3	0.45	4	0.60	3	0.45	3	0.45
T2	0.10	3	0.30	4	0.40	3	0.30	3	0.30
Т3	0.10	2	0.30	4	0.40	3	0.30	3	0.30
T4	0.05	3	0.15	4	0.20	3	0.15	3	0.15
STAS		•	7.55	•	6.90	•	7.15		7.10

The Bone Bolango Regency government may select many forceful development strategy goals based on QSPM estimates in Table 6. SO1, which promotes high-growth sectors with government support and infrastructure, is the main strategy. This approach had the highest Weighted Total Score of 7.55, indicating strong alignment with internal strengths and external prospects, particularly in dynamic industries like mining and construction.

Second, the SO3 strategy aims to provide competitive industries access to developing regional markets to boost economic growth and equality. This strategy, with a Weighted Total

Score of 7.15, emphasizes market integration and regional consumer trends that benefit local businesses.

The SO4 method emphasizes supporting government programs to improve essential sectors, including agriculture, forestry, and fisheries. This plan's Weighted Total Score of 7.10 highlights the region's competitive advantages in major sectors and a favourable policy environment for their growth.

SO2, which promotes economic diversity to attract new investments and spur sector growth, has a remarkable Weighted Total Score of 6.90. Although less important than others, this technique helps Bone Bolango's economy remain resilient and adaptable by limiting overreliance on a few key sectors.

Bone Bolango Regency should focus on "Developing high-growth sectors with government support and infrastructure investment to maximize sectoral growth potential". The QSPM's highest Total Weighted Score indicates that this method is best for Bone Bolango Regency's economic development objectives.

CONCLUSION

The extensive data analysis yields numerous critical insights about the economic development plan of Bone Bolango Regency. The area has significant economic potential that may be further cultivated to act as a catalyst for regional prosperity. Three primary industries are particularly notable for their exceptional contributions compared to other regions: Agriculture, Forestry, and Fisheries; Mining and Quarrying; and Construction. These industries have persistent regional advantages and merit concentrated development efforts.

The quantitative research using Location Quotient (LQ), Dynamic Location Quotient (DLQ), and Shift-Share methodologies indicates that two sectors Mining and Quarrying, together with Construction fulfill all criteria as fundamental and promising industries. They demonstrate superior competitive advantages relative to the provincial sectors, and their industrial composition expands more rapidly than the general economic growth rate. These sectors are designated as priority areas to be developed as showcase commodities to expedite economic progress in Bone Bolango. Consequently, these industries need focused policy assistance and resource distribution from the local government for optimum development.

The SWOT analysis reveals that Bone Bolango Regency is positioned to implement proactive and assertive growth plans, using its internal strengths while also seizing external opportunities. The advised strategic orientation is categorized under the SO (Strength-Opportunity) quadrant, appropriate for areas possessing robust internal capabilities and a conducive external environment.

The QSPM (Quantitative Strategic Planning Matrix) analysis facilitates the prioritizing of various essential strategies for execution. The following factors are identified: (1) fostering high-growth sectors like Mining and Quarrying through government policy and infrastructure investment, achieving the highest weighted score of 7.55; (2) enhancing access to emerging regional markets for competitive sectors to encourage equitable growth (score: 7.15); (3) employing supportive government policies to bolster primary sectors such as agriculture, forestry, and fisheries (score: 7.10); and (4) utilizing economic diversification to attract investment that will invigorate sectoral growth (score: 6.90). These plans jointly provide a thorough and focused framework for attaining sustained economic development in Bone Bolango Regency.

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