

## Research Article

# ANALYSIS OF BLUE ECONOMY POTENTIAL: STRATEGIES FOR SUSTAINABLE FISHERIES AND MARINE TOURISM DEVELOPMENT IN BANGKA BELITUNG PROVINCE USING THE LQ AND SHIFT-SHARE APPROACHES.

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**Abstract:** Blue economy potential plays an important role in sustainable development, especially in the fisheries and maritime tourism sectors. This study aims to analyze blue economy potential in Bangka Belitung Province using the Location Quotient (LQ) and Shift-Share methods to identify leading sectors and economic growth in coastal areas. The LQ method is used to determine sector specialization, while the Shift-Share method analyzes the growth dynamics of the fisheries and maritime tourism sectors. The research findings are expected to provide recommendations for sustainable development strategies, strengthen local economic resilience, and support marine ecosystem conservation. This study utilizes secondary data from government agencies and regional statistical reports to comprehensively evaluate the contribution of these sectors to the regional economy.

**Keywords:** Blue Economy, Fisheries, Maritime Tourism, Location Quotient (LQ), Shift-Share, Bangka Belitung

## INTRODUCTION

The province of Bangka Belitung, as one of Indonesia's archipelagic regions, has abundant marine resources, both in the fisheries and marine tourism sectors. These two sectors are not only the backbone of the local economy but also play a strategic role in promoting sustainable development through a blue economy approach. The blue economy is a concept that emphasizes the sustainable use of marine resources by combining economic growth, social welfare, and environmental conservation. In the context of Bangka Belitung, the development of the blue economy is highly relevant given the high dependence of coastal communities on the maritime sector and the significant untapped potential.

Fisheries and maritime tourism are two key sectors that can drive economic growth in Bangka Belitung. The fisheries sector, both fishing and aquaculture, has long been a source of livelihood for coastal communities, while maritime tourism offers unique natural attractions such as white sandy beaches, coral reefs, and maritime cultural heritage. However, challenges such as overexploitation of fish resources, damage to coastal ecosystems, and regional development imbalances hinder the optimization of this

potential. Therefore, data-driven development strategies are needed to identify key sectors and measure their economic contributions and growth more accurately.

This study aims to analyze the blue economy potential in Bangka Belitung Province, focusing on the fisheries and maritime tourism sectors. To achieve this objective, the Location Quotient (LQ) approach is used to identify the economic sector specializations in the region, while the Shift-Share analysis is applied to compare the growth of these sectors with national or regional economic growth. Both methods will provide a comprehensive overview of the sectors with comparative advantages and how their growth dynamics have evolved over a specific period..

Additionally, this study is expected to provide policy recommendations that support sustainable development in Bangka Belitung. By strengthening local economic resilience through sustainable fisheries and maritime tourism, the province can not only increase community income but also preserve marine ecosystems. The data used in this study was obtained from government agencies and regional statistics, ensuring that the analysis results can serve as a basis for more targeted and evidence-based development planning.

Through the blue economy approach, Bangka Belitung Province has a great opportunity to become a model for environmentally friendly and economically competitive coastal development. Therefore, this study not only contributes to the development of knowledge related to the maritime economy but also provides practical implications for stakeholders in formulating inclusive and sustainable development strategies.

## LITERATURE REVIEW

### Location Quotient (LQ)

Location Quotient (LQ) is a commonly used analytical tool in regional economics to identify the base (leading) sectors of a region. According to Isard (1960), LQ compares the proportion of a sector in the local economy to its proportion in the national economy. If the LQ value is  $> 1$ , the sector is considered a base sector because it has a higher concentration than the national average. Research by Kuncoro (2004) shows that LQ analysis is effective in determining priority sectors for regional economic development..

### Shift-Share

Shift-Share analysis was introduced by Dunn (1960) and further developed by Esteban-Marquillas (1972) to break down regional economic growth into three components:

- National Growth Effect (NGE): Growth driven by national trends.
- Industrial Mix Effect (IME): The influence of regional industrial structure on growth.

- Competitive Effect (CE): Relative competitiveness of local sectors compared to national sectors.

Research by Tarigan (2005) applied Shift-Share to analyze economic shifts in natural resource-based regions, finding that sectors with positive competitive value tend to be more resilient to external shocks. A similar study by Sjafrizal (2014) emphasized the importance of this analysis in regional development planning, particularly in anticipating growth disparities between sectors.

## METHOD

This study uses a quantitative approach to analyze the structure and dynamics of the economy of Bangka Belitung Province during the period 2020-2023. The methodological framework of this study integrates three main analytical approaches: Location Quotient (LQ) for identifying leading sectors, Shift-Share analysis for breaking down the components of economic growth, and calculation of the annual economic growth rate..

### Location Quotient (LQ)

LQ analysis is used to measure the level of specialization of the base or leading sectors in Pinrang Regency. LQ classifies economic activities in a region into leading (base) sector activities and backward (non-base) economic sector activities. LQ analysis has two categories: Static Location Quotient (SLQ) and Dynamic Location Quotient (DLQ) (Mujiraharjo, 2017). The LQ analysis used (Hamida, 2022) is as follows:

$$LQ = \frac{PDRBs,i / \sum PDRBs}{PDRBss,i / \sum PDRBss}$$

Description :

$PDRBs,i$  = PDRB sector i in the district in a given year

$\sum PDRBs,I$  = Total PDRB sector i in the district in a given year

$PDRBss,I$  = PDRB sector i in a given province in a given year

$\sum PDRBss,i$  = Total PDRB sector i in the province in a given year

Criteria:

- Core or leading sector if  $LQ > 1$
- Non-core sector if  $LQ < 1$

### Analisis Shift Share

Shift Share Analysis is used to identify changes and shifts in sectors within the economy of Pinrang Regency. The results of the shift share analysis will provide an overview of how the sectors in the Regional Domestic Product (RDP) of Pinrang Regency perform when compared to South Sulawesi Province (Mujiraharjo, 2017). The

equation used in the shift share analysis (Soepono, 1993; Randy, et al., 2019) is as follows::

$$Dij = Nij + Mij + Cij$$

Description:

I = Economic sectors studied

J = Regional variables studied (Pangkal Pinang City)

n = Regional variables of Bangka Belitung Province

Dij = Change in sector i in region j (Pangkal Pinang City)

Nij = National growth of sector i in region j (Pangkal Pinang City)

Mij = Industrial mix of sector i in region j (Pangkal Pinang City)

Cij = Competitive advantage of sector i in region j (Pangkal Pinang City)

## RESULTS

### Analysis Location Quotient (LQ)

**Figure 1.** Analysis Location Quotient (LQ) using Microsoft Excel

| NO    | LAPANGAN USAHA                                             | PDRB HARGA BERLAKU TAHUN 2023    |                                               | LQ          | KET.SEKTOR |
|-------|------------------------------------------------------------|----------------------------------|-----------------------------------------------|-------------|------------|
|       |                                                            | KOTA PANGKALPINANG (JUTA RUPIAH) | PROV. KEPULAUAN BANGKA BELITUNG (JUTA RUPIAH) |             |            |
| 1     | Pertanian, Kehutanan, dan Perikanan                        | 453164.13                        | 19996712.17                                   | 0.216117052 | Non Basis  |
| 2     | Pertambangan dan Penggalian                                | -                                | 7769129                                       | 7769129     | Non Basis  |
| 3     | Industri Pengolahan                                        | 1978362.72                       | 21679373.5                                    | 0.870264557 | Non Basis  |
| 4     | Pengadaan Listrik dan Gas                                  | 8322.99                          | 112297.91                                     | 0.70680531  | Non Basis  |
| 5     | Pengadaan Air, Pengelolaan Sampah, Limbah dan Daur Ulang   | 2751.89                          | 19250.59                                      | 1.363261374 | Basis      |
| 6     | Konstruksi                                                 | 1122115.68                       | 9746187.36                                    | 1.097981391 | Basis      |
| 7     | Perdagangan Besar dan Eceran; Reparasi Mobil dan Sepeda Mo | 2626630.32                       | 16106526.15                                   | 1.555210485 | Basis      |
| 8     | Transportasi dan Pergudangan                               | 675331.42                        | 4964618.72                                    | 1.297248448 | Basis      |
| 9     | Penyediaan Akomodasi dan Makan Minum                       | 424418.06                        | 3281893.64                                    | 1.233279345 | Basis      |
| 10    | Informasi dan Komunikasi                                   | 699612.92                        | 2290126.64                                    | 2.913335003 | Basis      |
| 11    | Jasa Keuangan dan Asuransi                                 | 498211.48                        | 2074534.47                                    | 2.290262064 | Basis      |
| 12    | Real Estate                                                | 577642                           | 3479544.25                                    | 1.58317347  | Basis      |
| 13    | Jasa Perusahaan                                            | 44507.03                         | 305644.64                                     | 1.388685608 | Basis      |
| 14    | Administrasi Pemerintahan, Pertahanan dan Jaminan Sosial W | 655336.14                        | 5408437.39                                    | 1.155538491 | Basis      |
| 15    | Jasa Pendidikan                                            | 522619.18                        | 2984589.01                                    | 1.669909414 | Basis      |
| 16    | Jasa Kesehatan dan Kegiatan Sosial                         | 245518.2                         | 1416433.89                                    | 1.653025246 | Basis      |
| 17    | Jasa lainnya                                               | 216364.59                        | 891471.65                                     | 2.314572313 | Basis      |
| TOTAL |                                                            | 10750908.74                      | 102526771                                     |             |            |

The LQ calculation results show that the Information and Communication sector has an LQ value of 2.91, making it the base sector in Pangkalpinang City. These results indicate that this sector has a significant relative advantage compared to the average sector at the provincial level. This means that this sector not only meets local needs but also plays a role in interregional service exports..

Meanwhile, the Mining and Quarrying sector showed the lowest LQ value, at 0.077, indicating the minimal contribution of this sector to the local economy and its high dependence on supplies from outside the Pangkalpinang City area.

## Testing Sector Growth and Competitiveness Through Shift-Share Components

### 1) Analysis Shift-Share

**Figure 2.** Analysis Shift-Share using Microsoft Excel

| Analisis Shift Share Kota Pangkalpinang Atas Dasar Konstan 2020<br>Menurut Lapangan Usaha ( Miliar Rupiah ) 2020-2023 |                                        |                  |                  |                                           |                 |                    |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------|------------------|-------------------------------------------|-----------------|--------------------|
| Lapangan Usaha                                                                                                        | PDRB Bangka Belitung ( Miliar Rupiah ) |                  | $\Delta E_{i,t}$ | PDRB kota Pangkalpinang ( Miliar Rupiah ) |                 | $\Delta E_{r,i,t}$ |
|                                                                                                                       | 2020                                   | 2023             |                  | 2020                                      | 2023            |                    |
|                                                                                                                       | $E_{N,i,t-n}$                          | $E_{N,i,t}$      |                  | $E_{r,i,t-n}$                             | $E_{r,i,t}$     |                    |
| Pertanian, Kehutanan, dan Perikanan                                                                                   | 15443.74                               | 19996.71         | 4552.97          | 436.04                                    | 453.16          | 17.12              |
| Pertambangan dan Penggalian                                                                                           | 6469.39                                | 7769.13          | 1299.74          | -                                         | -               | -                  |
| Industri Pengolahan                                                                                                   | 14166.07                               | 21679.37         | 7513.3           | 1383.63                                   | 1978.07         | 594.44             |
| Pengadaan Listrik dan Gas                                                                                             | 101.06                                 | 112.3            | 11.24            | 8.16                                      | 8.32            | 0.16               |
| Pengadaan Air, Pengelolaan Sampah, Limbah dan Daur Ulang                                                              | 16.6                                   | 19.25            | 2.65             | 2.59                                      | 2.75            | 0.16               |
| Konstruksi                                                                                                            | 7709.8                                 | 9746.19          | 2036.39          | 1006.46                                   | 1122.12         | 115.66             |
| Perdagangan Besar dan Eceran; Reparasi Mobil dan Sepeda Motor                                                         | 11607.67                               | 16106.53         | 4498.86          | 2259.93                                   | 2626.6          | 366.67             |
| Transportasi dan Pergudangan                                                                                          | 2730.71                                | 4964.62          | 2233.91          | 522.41                                    | 675.5           | 153.09             |
| Penyediaan Akomodasi dan Makan Minum                                                                                  | 2295.29                                | 3281.89          | 986.6            | 312.26                                    | 424.42          | 112.16             |
| Informasi dan Komunikasi                                                                                              | 1630.65                                | 2290.13          | 659.48           | 503.17                                    | 699.61          | 196.44             |
| Jasa Keuangan dan Asuransi                                                                                            | 1407.83                                | 2074.53          | 666.7            | 408.38                                    | 498.27          | 89.89              |
| Real Estate                                                                                                           | 2792.92                                | 3479.54          | 686.62           | 490.37                                    | 577.64          | 87.27              |
| Jasa Perusahaan                                                                                                       | 212.41                                 | 305.64           | 93.23            | 34.83                                     | 44.51           | 9.68               |
| Administrasi Pemerintahan, Pertahanan dan Jaminan Sosial Wajib                                                        | 4837.64                                | 5408.44          | 570.8            | 609.86                                    | 655.34          | 45.48              |
| Jasa Pendidikan                                                                                                       | 2386.14                                | 2984.59          | 598.45           | 451.96                                    | 522.62          | 70.66              |
| Jasa Kesehatan dan Kegiatan Sosial                                                                                    | 1049.07                                | 1416.43          | 367.36           | 193.02                                    | 245.52          | 52.5               |
| Jasa lainnya                                                                                                          | 662.79                                 | 891.47           | 228.68           | 174.04                                    | 216.36          | 42.32              |
| <b>TOTAL</b>                                                                                                          | <b>75519.78</b>                        | <b>102526.76</b> | <b>27006.98</b>  | <b>8797.11</b>                            | <b>10750.81</b> | <b>1953.7</b>      |

Shift-Share analysis shows that Manufacturing, Wholesale and Retail Trade, and Information and Communication are sectors with significant contributions to local economic growth, as seen from the  $\Delta E_i$  value (change in sectoral GRDP) of :

- o Manufacturing: IDR 594.44 billion
- o Wholesale and Retail Trade: IDR 366.67 billion
- o Transportation and Warehousing: IDR 196.44 billion

### 2) National Share (Ns)

**Figure 3.** Calculation of National Share (Ns) using Microsoft Excel

| Perhitungan Nasional Share ( NS ) Kota Pangkalpinang<br>Tahun 2020-2023 |               |                       |                    |                    |
|-------------------------------------------------------------------------|---------------|-----------------------|--------------------|--------------------|
| Lapangan Usaha                                                          | $E_{r,i,t-n}$ | $E_{N,t} / E_{N,t-n}$ | ( c )              | National Share     |
|                                                                         | ( a )         | ( b )                 | ( a ) x ( b )      | ( c ) - ( a )      |
| Pertanian, Kehutanan, dan Perikanan                                     | 4552.97       | 1.294810065           | 5895.231384        | 1342.261384        |
| Pertambangan dan Penggalian                                             | 1299.74       | 1.200906113           | 1560.865712        | 261.1257116        |
| Industri Pengolahan                                                     | 7513.3        | 1.530372926           | 11498.15091        | 3984.850907        |
| Pengadaan Listrik dan Gas                                               | 11.24         | 1.111221057           | 12.49012468        | 1.250124678        |
| Pengadaan Air, Pengelolaan Sampah, Limbah dan Daur Ulang                | 2.65          | 1.159638554           | 3.073042169        | 0.423042169        |
| Konstruksi                                                              | 2036.39       | 1.264130068           | 2574.26183         | 537.8718296        |
| Perdagangan Besar dan Eceran; Reparasi Mobil dan Sepeda Motor           | 4498.86       | 1.38757649            | 6242.512369        | 1743.652369        |
| Transportasi dan Pergudangan                                            | 2233.91       | 1.818069293           | 4061.403175        | 1827.493175        |
| Penyediaan Akomodasi dan Makan Minum                                    | 986.6         | 1.429836753           | 1410.67694         | 424.0769402        |
| Informasi dan Komunikasi                                                | 659.48        | 1.404427682           | 926.1919679        | 266.7119679        |
| Jasa Keuangan dan Asuransi                                              | 666.7         | 1.4735657             | 982.4262525        | 315.7262525        |
| Real Estate                                                             | 686.62        | 1.24584306            | 855.4207621        | 168.8007621        |
| Jasa Perusahaan                                                         | 93.23         | 1.438915305           | 134.1500739        | 40.92007391        |
| Administrasi Pemerintahan, Pertahanan dan Jaminan Sosial Wajib          | 570.8         | 1.117991417           | 638.149501         | 67.349501          |
| Jasa Pendidikan                                                         | 598.45        | 1.250802551           | 748.5427869        | 150.0927869        |
| Jasa Kesehatan dan Kegiatan Sosial                                      | 367.36        | 1.350176823           | 496.0009578        | 128.6409578        |
| Jasa lainnya                                                            | 228.68        | 1.345026328           | 307.5806207        | 78.90062071        |
| <b>TOTAL</b>                                                            | <b>27007</b>  | <b>1.357614654</b>    | <b>36665.09896</b> | <b>9658.098962</b> |

Based on the results of the National Share (Ns) component calculation, the business field with the highest Ns value is the wholesale and retail trade

sector; car and motorcycle repair, followed by the transportation and warehousing sector and the manufacturing industry. These three sectors show the largest contribution to the economic growth of Pangkalpinang City compared to other sectors nationally. This value shows that these sectors have grown consistently in line with economic growth trends in the Bangka Belitung Province.

Meanwhile, the sectors with the lowest National Share (Ns) values are water supply, waste management, sewage, and recycling, followed by real estate and electricity and gas supply, which reflect the smallest relative contributions to national economic growth.

### 3) Proportional Shift (P)

**Figure 4.** Calculation Proportional Shift using Microsoft Excel

| Perhitungan Propotional Shift ( P )                            |                      |                                 |                           |                        |                                    |
|----------------------------------------------------------------|----------------------|---------------------------------|---------------------------|------------------------|------------------------------------|
| Lapangan Usaha                                                 | E r, I, t-n<br>( a ) | E N, I, t/ E N, I, t-n<br>( b ) | E N, t/ E N, t-n<br>( c ) | ( d )<br>( b ) - ( c ) | Propotional Share<br>( a ) x ( d ) |
| Pertanian, Kehutanan, dan Perikanan                            | 4552.97              | 1.294810065                     | 1.357614654               | -0.062804589           | -285.9474079                       |
| Pertambangan dan Penggalian                                    | 1299.74              | 1.200906113                     | 1.357614966               | -0.156708853           | -203.6807646                       |
| Industri Pengolahan                                            | 7513.3               | 1.530372926                     | 1.357614966               | 0.17275796             | 1297.982381                        |
| Pengadaan Listrik dan Gas                                      | 11.24                | 1.111221057                     | 1.357614966               | -0.246393909           | -2.769467542                       |
| Pengadaan Air, Pengelolaan Sampah, Limbah dan Daur Ulang       | 2.65                 | 1.159638554                     | 1.357614966               | -0.197976412           | -0.524637492                       |
| Konstruksi                                                     | 2036.39              | 1.264130068                     | 1.357614966               | -0.093484898           | -190.3717115                       |
| Perdagangan Besar dan Eceran; Reparasi Mobil dan Sepeda Motor  | 4498.86              | 1.38757649                      | 1.357614966               | 0.029961524            | 134.7927024                        |
| Transportasi dan Pergudangan                                   | 2233.91              | 1.818069293                     | 1.357614966               | 0.460454327            | 1028.613526                        |
| Penyediaan Akomodasi dan Makan Minum                           | 986.6                | 1.429836753                     | 1.357614966               | 0.072221786            | 71.25401446                        |
| Informasi dan Komunikasi                                       | 659.48               | 1.404427682                     | 1.357614966               | 0.046812716            | 30.87204992                        |
| Jasa Keuangan dan Asuransi                                     | 666.7                | 1.404427682                     | 1.357614966               | 0.046812716            | 31.21003773                        |
| Real Estate                                                    | 686.62               | 1.4735657                       | 1.357614966               | 0.115950734            | 79.61409308                        |
| Jasa Perusahaan                                                | 93.23                | 1.24584306                      | 1.357614966               | -0.111771906           | -10.42049479                       |
| Administrasi Pemerintahan, Pertahanan dan Jaminan Sosial Wajib | 570.8                | 1.438915305                     | 1.357614966               | 0.081300339            | 46.40623353                        |
| Jasa Pendidikan                                                | 598.45               | 1.117991417                     | 1.357614966               | -0.239623549           | -143.4027129                       |
| Jasa Kesehatan dan Kegiatan Sosial                             | 367.36               | 1.350176823                     | 1.357614966               | -0.007438143           | -2.732476202                       |
| Jasa lainnya                                                   | 228.68               | 1.345026328                     | 1.357614966               | -0.012588638           | -2.878769773                       |
| <b>TOTAL</b>                                                   | <b>27007</b>         | <b>1.357614654</b>              | <b>1.357614966</b>        | <b>-3.12185E-07</b>    | <b>-0.008431183</b>                |

The results of the Proportional Shift (P) component calculation show that the manufacturing sector is the sector with the highest P value, indicating that this sector is growing proportionally faster than similar sectors at the Bangka Belitung Province level. This sector is the main driver of economic growth in Pangkalpinang City in terms of relative advantage.

Conversely, the water supply, waste management, and recycling sector has the lowest P value, indicating that its growth is far below the provincial average for similar sectors.

## 4) Differential Shift (D)

**Figure 5.** Calculation Differential Shift using Microsoft Excel

Perhitungan Differential Shift Kota Pangkalpinang ( D )

| Lapangan Usaha                                                 | $E_{r,l,t}$<br>( a ) | $E_{N,l,t} / E_{N,l,t-n}$<br>( b ) | $E_{r,l,t-n}$<br>( c ) | ( d )<br>( b ) x ( c ) | Differential Shift<br>( a ) - ( d ) |
|----------------------------------------------------------------|----------------------|------------------------------------|------------------------|------------------------|-------------------------------------|
| Pertanian, Kehutanan, dan Perikanan                            | 453.16               | 1.294810065                        | 436.04                 | 564.5889809            | -111.4289809                        |
| Pertambangan dan Penggalian                                    | -                    | 1.200906113                        | -                      | 1.200906113            | 1.200906113                         |
| Industri Pengolahan                                            | 1978.07              | 1.530372926                        | 1383.63                | 2117.469892            | -139.399892                         |
| Pengadaan Listrik dan Gas                                      | 8.32                 | 1.111221057                        | 8.16                   | 9.067563823            | -0.747563823                        |
| Pengadaan Air, Pengelolaan Sampah, Limbah dan Daur Ulang       | 2.75                 | 1.159638554                        | 2.59                   | 3.003463855            | -0.253463855                        |
| Konstruksi                                                     | 1122.12              | 1.264130068                        | 1006.46                | 1272.296348            | -150.1763485                        |
| Perdagangan Besar dan Eceran; Reparasi Mobil dan Sepeda Motor  | 2626.6               | 1.38757649                         | 2259.93                | 3135.825738            | -509.2257379                        |
| Transportasi dan Pergudangan                                   | 675.5                | 1.818069293                        | 522.41                 | 949.7775795            | -274.2775795                        |
| Penyediaan Akomodasi dan Makan Minum                           | 424.42               | 1.429836753                        | 312.26                 | 446.4808244            | -22.06082438                        |
| Informasi dan Komunikasi                                       | 699.61               | 1.404427682                        | 503.17                 | 706.6658769            | -7.055876859                        |
| Jasa Keuangan dan Asuransi                                     | 498.27               | 1.4735657                          | 408.38                 | 601.7747607            | -103.5047607                        |
| Real Estate                                                    | 577.64               | 1.24584306                         | 490.37                 | 610.9240615            | -33.28406148                        |
| Jasa Perusahaan                                                | 44.51                | 1.438915305                        | 34.83                  | 50.11742008            | -5.607420084                        |
| Administrasi Pemerintahan, Pertahanan dan Jaminan Sosial Wajib | 655.34               | 1.117991417                        | 609.86                 | 681.8182458            | -26.47824576                        |
| Jasa Pendidikan                                                | 522.62               | 1.250802551                        | 451.96                 | 565.3127211            | -42.69272113                        |
| Jasa Kesehatan dan Kegiatan Sosial                             | 245.52               | 1.350176823                        | 193.02                 | 260.6111304            | -15.09113043                        |
| Jasa lainnya                                                   | 216.36               | 1.345026328                        | 174.04                 | 234.0883821            | -17.72838214                        |
| <b>TOTAL</b>                                                   | <b>10750.81</b>      | <b>1.357614654</b>                 | <b>8797.13</b>         | <b>11943.1126</b>      | <b>-1192.302602</b>                 |

Based on the results of the Differential Shift (D) component calculation, the water supply, waste management, sewage, and recycling sectors showed the lowest D values. This indicates that these sectors are growing more slowly than similar sectors at the provincial level in Bangka Belitung. On the other hand, the manufacturing sector shows a negative Differential Shift (D) value, indicating that the growth of this sector in Pangkalpinang City is slower than the growth of similar sectors at the Bangka Belitung Province level.

## DISCUSSION

The province of Bangka Belitung is an archipelago with significant blue economy potential, particularly in the fisheries and maritime tourism sectors. These two sectors play a crucial role in supporting local economic growth and sustainable development. Using a quantitative approach, this study aims to identify the strengths of key economic sectors and sectoral growth using Location Quotient (LQ) Analysis and Shift-Share Analysis..

Based on Location Quotient (LQ) analysis, the Information and Communication sector has an LQ value of 2.91, making it a basic sector in Pangkalpinang City. This indicates that this sector not only meets local needs but also has a competitive advantage in providing communication services to other regions, even acting as a driver of interregional service exports. Conversely, the Mining and Quarrying sector shows a very low LQ value of 0.077, indicating the sector's low contribution to the local economy and high dependence on other regions..

In addition, through Shift-Share Analysis, the dynamics of local economic growth can be understood based on three main components: National Share, Proportional Shift, and Differential Shift. The Manufacturing Sector, Wholesale and Retail Trade, and Transportation and Warehousing are the main contributors to local GDP growth, with

sectoral growth contributions of Rp 594.44 billion, Rp 116.65 billion, and Rp 355.07 billion, respectively. This indicates that these sectors are growing strongly in the local context and are highly relevant to community needs and regional economic activities..

From the National Share (Ns) perspective, these three sectors also show consistent growth in line with the economic growth trend of Bangka Belitung Province. This means that these sectors are not only growing due to internal regional factors but are also driven by broader economic growth trends. From the perspective of Proportional Shift, the Trade, Transportation, and Information-Communication sectors stand out as sectors with progressive growth structures. However, there are also sectors experiencing structural decline, such as the Water Supply and Waste Management sector, which lag behind the dynamics of similar sectors at the provincial level..

Meanwhile, from a Differential Shift perspective, the Transportation and Warehousing and Information and Communication sectors are highly competitive, with very high positive values. This indicates strong local competitiveness and the potential for these sectors to continue to grow independently without relying on national trends. Conversely, the Financial Services and Insurance sector and the Water Supply and Waste Management sector have negative values, indicating weak competitiveness and the need for special attention from policymakers.

Overall, the results of both analysis methods show that although the fisheries and tourism sectors are not explicitly identified as priority sectors based on LQ values or Shift-Share components, the blue economy approach remains highly relevant when applied through strategies to strengthen supporting sectors such as Transportation, Information-Communication, and Trade. These sectors serve as critical infrastructure for the development of the maritime and fisheries sectors.

These findings highlight the importance of holistic, data-driven development strategies. Local governments are encouraged to prioritize sectors with high competitiveness and progressive growth structures while strengthening economic ecosystems that support the maritime sector. Thus, blue economy development in Bangka Belitung not only improves the welfare of coastal communities but also ensures sustainable conservation of the marine environment.

## CONCLUSION

This study proves that the blue economy approach plays a strategic role in promoting sustainable development in the Province of Bangka Belitung, particularly through the fisheries and maritime tourism sectors. By using two analytical methods, Location Quotient (LQ) and Shift-Share, a more measurable picture of comparative advantages and sectoral economic growth dynamics in this region was obtained. The research



findings indicate that while sectors directly linked to fisheries and tourism have not yet dominated in terms of LQ scores and sectoral competitiveness, other sectors such as information and communication, transportation, trade, and manufacturing play a crucial role in supporting the blue economy infrastructure..

These sectors not only demonstrate regional specialization strengths but also show growth that aligns with or even exceeds provincial trends, indicating an increase in local competitive advantages. These findings suggest that blue economy development is not solely determined by the direct strength of the maritime sector but also by the presence of supporting sectors that facilitate the sustainable development of marine and coastal ecosystems. .

Therefore, the ideal development direction for Bangka Belitung is to integrate the strengths of its flagship sectors with its maritime potential, ensuring that all strategies are designed based on solid spatial data and in-depth analysis. Through this approach, Bangka Belitung has a great opportunity to become a model for island regions that are not only economically advanced but also maintain ecological balance in the sea and the welfare of their coastal communities.

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