Application of Location Quotient for Development of Sembalun Tourism Destinations Based on Local Comparative Advantage

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I. Introduction

The advantages of local comparative-based tourism development are important to research, because the results of the research will be a product with implications for policies in creating a competitiveness, especially in the field of tourism that relies on the potential of resources in an area or region, such as natural beauty, culture and resources. human (Yahya, 2019). Saraswati et al. (2019) argues that comparative advantage is a determining factor for the competitiveness of a region.

The previous comparative advantage research was carried out by Alaeddinoglu and Can (2011), his research was related to comparative advantage in the tourism sector which focused on the criteria for assessing the comparative advantage of natural beauty in terms of the level of attractiveness, infrastructure, level of environmental damage, and accessibility. Majidli (2020), conducted research related to the comparative advantage of

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tourism in post-Soviet countries. The indicator is measured by the travel and tourism competitiveness index.

Most of the previous research indicators were measured based on natural beauty, infrastructure, environment, and accessibility. In contrast to this study, comparative advantage indicators are measured based on potential resources, such as nature, culture and humans using the location quotient (LQ) analysis method which aims to determine positive implications for tourism development based on local comparative advantage in Sembalun District based on mapping the potential of tourism resources.

II. Review of Literature

2.1 Local Comparative Advantage

The basic concept of the advantages of local comparative-based tourism development comes from the concept created by the classical economist in the early 19th century David Ricardo. Comparability is a proposition that can explain the condition of a business that provides benefits in the form of profits, which can occur between two regions. Comparative advantage occurs due to different "endowments", on the basis of natural, capital, and human resources (Graha, 2010).

Each region certainly has potential resources in which there are advantages and disadvantages. If an area has local tourism resources that are unique, where it is not owned by other regions, the growth rate will be faster because it attracts attention, this is called a comparative advantage which has a dynamic nature. As described by Ramantha (2019) that the whole way of life, activities, beliefs and customs of Balinese Hindu people, groups, or communities has provided a comparative advantage, not only for Bali tourism, but also for national tourism.

2.2 Tourism Development

Development is a change towards improvement (Shah et al, 2020). According to Setiartiti (2018), tourism development is a series of efforts to realize integration in the use of various tourism resources and integrate all forms of aspects outside of tourism that are directly or indirectly related to the continuity of tourism development.

Tourism development has positive and negative impacts, so planning is needed to prevent negative impacts from positive impacts, which are taken from tourism development including: (a) Tourism is able to provide a feeling of pride and love for the Unitary State of the Republic of Indonesia through tourist travel activities carried out by its residents throughout the country, so as to create national unity and integrity. (b) Elimination of poverty, because tourism development is able to provide opportunities for all Indonesian people to try and work. (c) Sustainable development, the nature of tourism activities that offer natural beauty, cultural richness and hospitality services, very few resources are used up to support these activities. (d) Cultural preservation, tourism development should be able to make a real contribution to the efforts to preserve the culture of a country or region which includes the protection, development and utilization of the culture of the country or region. (e) To fulfill the needs of life and human rights, tourism has now become a basic need of modern society. (f) Economic improvement and a good and sustainable tourism management industry should be able to provide opportunities for economic growth in a tourism destination.
2.3 Tourism Potential and Attraction

According to Law Number 10 of 2009 concerning Tourism, tourist attraction is one of the businesses in tourism. The tourism business includes tourism areas, transportation services, travel services, food and beverage services, providing accommodation for organizing entertainment and recreational activities, organizing meetings, intensity trips, conferences and exhibitions, tourism information services, tourism consulting services, and tour guide services.

Broadly speaking, tourist attractions are classified into three classifications, namely: (a) Natural tourist attractions, sourced from existing natural conditions including proximity to the natural surroundings or the environment such as beach tourism, marine tourism, mountainous nature tourism, wild area tourism and remote areas, tourism parks and conservation areas. (b) Cultural attractiveness, having objects that are sourced from the socio-cultural conditions of the community or relics such as conditions of community customs, social conditions of the community, and traditional events. (c) Man-made attractions (including artificial/special), are attractions that develop something originating from man-made, or are included as special attractions such as people's amusement parks, music festivals, annual festivals or venues for competitions (boats, cross motors, etc.).

2.4 Location Quotient

Location quotient (LQ) is an analytical method that aims to identify superior commodities accommodated from Miller et al. (1991), and Hood (1998). According to Hood (1998), LQ is a simpler tool of economic development with all its advantages and limitations. LQ is used to calculate the comparison of the output share of sector i in the city or district and the share out of sector i in the province. The leading sector here means the business sector that will not run out if it is exploited by the regional government (Jumiyanti, 2018).

In practice, the use of the LQ method is very widespread, not only discussing the economic sector but also to identify the potential advantages of a region (Hendayana, 2003).

III. Research Method

The research method used in this study is a survey research method. Survey research method is research that takes a sample from a population and uses a questionnaire as the main data collection tool (Asyraini et al., 2022; Octiva et al., 2021; Pandia et al., 2018; Pandiangan et al., 2018). The existence of grouping and mapping of objects (mapping and clustering) based on the characteristics contained in the factors that will be verified through this research, the type of research used is exploratory or explanatory research (Pandiangan, 2015; Pandiangan, 2022).

The population in this study were all core tourism stakeholders in Sembalun District. The technique used to determine the sample in this study is a purposive sampling technique with non-random sampling. Non-random sampling where the researcher determines the sampling by determining the special characteristics that are in accordance with the research objectives (Octiva, 2018; Pandiangan, 2018; Pandiangan et al., 2021).

For the purposes of data processing, especially primary data in the form of responses or answers of respondents to the questions asked using a likert scale, namely with an interval of 1 to 4. The interval of respondents' answers will be adjusted to the questions asked.
The analytical model used in this study is the location quotient (LQ) analysis. LQ is used to determine the value of the comparative advantage of a situation (Octiva et al., 2018; Pandiangan et al., 2022; Tobing et al., 2018).

IV. Results and Discussion

The results of the study show the potential for diversity of tourism resources from the results of data collection in Sembalun District, which can be grouped as follows: (1) The potential for tourism in the natural environment consisting of (a) land, namely mountains, national parks, hills, rivers, forests, species flora, fauna, plantations, cultivation, rice fields, vast fields, caves, and waterfalls. (b) water, namely the expanse of the sea, pools of water, and the seabed. (2) The potential for cultural tourism which consists of (a) arts, (b) crafts, (c) livelihood systems, (d) local traditions, (e) culinary arts, (f) cultural festivals, (g) traditional markets, (h) traditional villages, (i) building cultural heritage, (j) cultural heritage objects, (k) cultural heritage sites, (l) traditional equipment and technology systems, (m) cultural heritage areas, (n) intangible culture, and (o) museums. (3) The potential for artificial tourism consists of (a) recreational and entertainment facilities, (b) rest facilities, and (c) recreational and sports facilities. (4) The potential for human resources consisting of (a) experts in the arts, and (b) experts in the field of culture.

Based on the calculation results of the location quotient (LQ) analysis carried out on the potential diversity of tourism resources in each village in Sembalun District based on the recapitulation of the grouping of data obtained in the field. And the results of the LQ calculation of the potential diversity of tourism resources in each village in Sembalun District can be seen in Table 1:

Table 1. Location Quotient Value of Potential Diversity of Tourism Resources for Each Village in Sembalun District

<table>
<thead>
<tr>
<th>No.</th>
<th>Village</th>
<th>Potential for Land Natural Tourism</th>
<th>Potential for Water Natural Tourism</th>
<th>Potential for Cultural Tourism</th>
<th>Potential for Artificial Tourism</th>
<th>Potential for Human Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LQ Value</td>
<td>LQ Value</td>
<td>LQ Value</td>
<td>LQ Value</td>
<td>LQ Value</td>
</tr>
<tr>
<td>1</td>
<td>Sembalun</td>
<td>1.158</td>
<td>0</td>
<td>0.924</td>
<td>2.329</td>
<td>0.225</td>
</tr>
<tr>
<td>2</td>
<td>Lawang</td>
<td>1.995</td>
<td>0</td>
<td>0.856</td>
<td>0.775</td>
<td>1.069</td>
</tr>
<tr>
<td>3</td>
<td>Bumbung</td>
<td>1.027</td>
<td>0</td>
<td>1.011</td>
<td>1.101</td>
<td>0.917</td>
</tr>
<tr>
<td>4</td>
<td>Timba Gading</td>
<td>1.572</td>
<td>0</td>
<td>0.774</td>
<td>2.075</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Sajang</td>
<td>1.036</td>
<td>0</td>
<td>1.021</td>
<td>0.472</td>
<td>1.215</td>
</tr>
<tr>
<td>6</td>
<td>Bilok Petung</td>
<td>0.649</td>
<td>4.511</td>
<td>1.966</td>
<td>0.722</td>
<td>1.349</td>
</tr>
</tbody>
</table>

Source: Research Data (2021)

Table 1 shows the results of the LQ calculation in each village in Sembalun District, East Lombok Regency, starting from Sembalun Village, the LQ value for tourism potential originating from the natural environment on land is 1.158 while the LQ value for tourism potential originating from the natural environment in the waters is 0. While the LQ value
for cultural potential is 0.924 species, then the LQ value for artificial tourism potential is 2.329 and for human resource potential is 0.225.

Lawang Village, shows the LQ value for the potential diversity of tourism resources from the natural environment, especially on land as much as 1.995 while the value for the potential diversity of tourism resources originating from the natural environment, especially waters is 0, while the LQ value for cultural potential is 0.856, then the LQ value for tourism potential artificial value of 0.775 and the potential of human resources as much as 1.069.

Bumbung Village, obtained the LQ value of the potential diversity of tourism resources from the natural environment on land of 1.027 while the LQ value of the potential diversity of tourism resources originating from the natural environment, especially waters was 0, while the LQ value of cultural potential was 1.011, then the value of tourism potential artificial is 1.101, and human resource potential is 0.917.

Timba Gading Village, has an LQ value of potential diversity of tourism resources from the natural environment on land of 1.572, while the LQ value of potential diversity of tourism resources from the natural environment, especially waters is 0, while the LQ value of cultural potential is 0.774, then the LQ value of tourism potential man-made area of 2.075 places, and the potential of human resources as many as 0 people.

Sajang Village, shows the LQ value of the potential diversity of tourism resources originating from the natural environment on land is 1.036 while the LQ value of the potential diversity of tourism resources originating from the natural environment, especially waters is 0 while the LQ value of cultural tourism potential is 1.021 then the LQ value of tourism potential artificial value is 0.472 and the LQ value of human resource potential is 1.215.

Bilok Petung Village, has an LQ value of potential diversity of tourism resources from the natural environment, especially on land of 0.649, while the LQ value of potential diversity of tourism resources originating from the natural environment, especially waters is 4.511 while the LQ value of cultural tourism potential is 1.966, then the LQ value for the artificial tourism potential is 0.722 and the LQ value for human resource potential is 1.349.

Determination of indicators in decision making, in order to ensure the comparative advantage of the potential diversity of tourism resources in each village in Sembalun District, it is necessary to determine the LQ standard, the provisions of which are as follows:

1. LQ > 1 is a strong potential for comparative advantage in a village compared to the whole village or sub-district. This means that a village has the potential for a strong diversity of tourism resources based on comparative advantages to serve as the basis for the feasibility of tourism development in the sub-district.

2. LQ = 1 is a less strong potential for comparative advantage in a village compared to the whole village or sub-district. However, it can still be used as the basis for the feasibility of tourism development in the sub-district, as long as there is collaboration with villages with strong comparative advantages.

3. LQ < 1. It is a weak potential for comparative advantage in a village compared to the whole village or sub-district. This means that the potential for the diversity of tourism resources in a village does not have a comparative advantage. The potential for the diversity of tourism resources in a village cannot be used as a basis for the feasibility of tourism development in the sub-district.
The potential for diversity of tourism resources in a village that produces an LQ value $> 1$ is a normative standard to be determined as a comparative superior potential. And if there is a lot of potential for the diversity of tourism resources that produces an LQ value $> 1$. This means that the degree of comparative advantage is determined based on the higher LQ value in a sub-district, because the higher the LQ value will indicate the higher the potential for comparative advantage in the diversity of tourism resources in a district the village.

Based on the indicators previously described in relation to the values that have been generated on the LQ, a decision can be drawn as follows:

a. Sembalun Village, based on the LQ value for the potential diversity of tourism resources originating from nature, especially on land, has an LQ value of 1.158. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun District. Likewise for the potential for artificial tourism, the LQ value is 2.329. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun sub-district. Meanwhile, other potentials, such as the potential for natural tourism originating from waters, culture, and human resources, the value of LQ $< 1$, it was decided that the potential for the diversity of tourism resources cannot be used as a priority scale for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District.

b. Lawang Village, based on the LQ value for the potential diversity of tourism resources originating from nature, especially on land, has an LQ value of 1.995. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Likewise, the potential for human resources has an LQ value of 1.069. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Meanwhile, other potentials, such as the potential for natural tourism originating from the waters, cultural tourism, and artificial tourism have an LQ value $< 1$, it was decided that the potential for the diversity of tourism resources cannot be used as a priority scale for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District.

c. Bumbung Village, based on the LQ value for the potential diversity of natural tourism resources, especially land, has an LQ value of 1.027. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Likewise, the potential for cultural tourism has an LQ value of 1.011. This means that LQ $> 1$. And for artificial tourism potential, it has an LQ value of 1.101. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Meanwhile, other potentials, such as the potential for natural tourism originating from the waters, and the potential for human resources have an LQ value $< 1$, it was decided that the potential for diversity of tourism resources cannot be used as a priority scale for the feasibility of tourism development based on local comparative advantages in Sembalun District.

d. Timba Gading Village, based on the LQ value for the potential diversity of tourism resources originating from cultural tourism, has an LQ value of 1.572. This means that LQ $> 1$, it can be decided that this potential can be used as a priority for the feasibility
of tourism development based on local comparative advantages in Sembalun Sub-District. Likewise for the potential for artificial tourism has an LQ value of 2.075. This means that LQ > 1, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Meanwhile, other potentials, such as the potential for natural tourism originating from waters, land, and human resources have an LQ value < 1, it was decided that the potential for the diversity of tourism resources cannot be a priority for the feasibility of developing tourism based on local comparative advantages in Sembalun Sub-District.

### e. Sajang Village

Based on the LQ value for the potential diversity of tourism resources originating from nature, especially on land, has an LQ value of 1.036. This means that LQ > 1, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Likewise, cultural tourism has an LQ value of 1.021. This means that LQ > 1, and for potential human resources, it has an LQ value of 1.215. This means that LQ > 1, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Meanwhile, other potentials, such as the potential for natural tourism originating from the waters, cultural tourism, and artificial tourism have an LQ value < 1, it was decided that the potential for the diversity of tourism resources cannot be used as a priority scale for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District.

### f. Bilok Petung Village

Based on the LQ value for the potential diversity of tourism resources originating from nature, especially in the waters, has an LQ value of 4.511. This means that LQ > 1, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Furthermore, the potential for cultural tourism has an LQ value of 1.966. This means that LQ > 1, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun District. Likewise, the potential for human resources has an LQ value of 1.349. This means that LQ > 1, it can be decided that this potential can be used as a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District. Meanwhile, other potentials, such as the potential for natural tourism originating from the mainland, and artificial tourism having an LQ value < 1, it was decided that the potential for the diversity of tourism resources could not be made a priority for the feasibility of tourism development based on local comparative advantages in Sembalun Sub-District.

Based on the results of LQ analysis research, it can be seen that the potential for natural tourism in the form of land is a comparative advantage for tourism development in Sembalun District.
V. Conclusion

The results of the study show the potential for diversity of tourism resources from the results of data collection in Sembalun District, which can be grouped as follows: (1) The potential for tourism in the natural environment consisting of (a) land, namely mountains, national parks, hills, lakes, rivers, forests, species flora, fauna, plantations, cultivation, rice fields, vast fields, caves, and waterfalls. (b) water, namely the expanse of the sea, pools of water, and the seabed. (2) The potential for cultural tourism which consists of (a) arts, (b) crafts, (c) livelihood systems, (d) local traditions, (e) culinary arts, (f) cultural festivals, (g) traditional markets, (h) traditional villages, (i) building cultural heritage, (j) cultural heritage objects, (k) cultural heritage sites, (l) traditional equipment and technology systems, (m) cultural heritage areas, (n) intangible culture, and (o) museums. (3) The potential for artificial tourism consists of (a) recreational and entertainment facilities, (b) rest facilities, and (c) recreational and sports facilities. (4) The potential for human resources consisting of (a) experts in the arts, and (b) experts in the field of culture. Based on the results of location quotient (LQ) analysis research, it can be seen that the potential for natural tourism in the form of land is a comparative advantage for tourism development in Sembalun District.

As a suggestion, so that the potential for the diversity of tourism resources in the Sembalun District area for mainland natural tourism can be optimized in the development of local comparative-based tourism based on comparative advantage, by developing human resource capacity by providing opportunities to participate in education, training seminars, and being cadred in the arts and culture. In addition, the potential for the diversity of tourism resources in the Sembalun District, especially for Bilok Petung Village, is to be more serious in developing the natural potential of the waters, in this case the coast, by means of comparative studies to destinations that have developed coastal potential, and also frequently attending seminars and training for the development of coastal destinations. And, for further research in the same focus, it is better to use a research design that is longitudinal in nature, where variables can change throughout the study.

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