Utilization of Senjoyo Springs in the Development of Tegalwanto Village in Tenggaran District, Semarang Regency

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Abstract: The development strategy derived from the SWOT analysis of Senjoyo Springs highlights the utilization of its internal strengths, especially the potential of natural conditions, to improve the quality and attractiveness of tourist attractions. Exploiting open markets and product diversification is an effective strategy for optimizing external opportunities. To overcome internal weaknesses, such as limited capital, as well as anticipate external threats, such as weather changes, actions are needed to strengthen the position of Senjoyo Springs in the natural tourism market. The contribution of Senjoyo Springs Nature Tourism to local community income is around 30.97%, showing a positive impact on the local economy, in line with previous findings regarding the economic benefits of nature tourism. Development recommendations include more intensive environmental management efforts, aggressive promotion, and close collaboration between the government, tourism managers and the community. Focusing on human resource management and increasing community knowledge regarding sustainable practices through training and education is critical. In the long term, regular monitoring of strategy implementation and its impact is essential to maintain the sustainability of Senjoyo Springs as a tourist attraction that provides sustainable economic, social and environmental benefits.

Keywords: Tourism management; Village development; natural tourism; Semarang tourism.

INTRODUCTION

According to the Semarang Regency Tourism Development Master Plan, which includes Tenggaran District along with Suruh District, Susukan District, and Kaliwungu District as part of Tourism Development Area (KPP) 1 with a service centre in Tenggaran District, the Semarang Regency Regional Government plans to use the Senjoyo Area as a natural and cultural tourist attraction, starting with the presence of people who came either for camping, recreation or to perform the kungkum ritual. The Senjoyo Spring is a tourist destination. On the other hand, the Senjoyo area's physical environment needs to be improved in terms of development. This is evident from the significant amount of trash left behind by tourists, the drop in water flow, and the significant sedimentation in the river and Senjoyo Embung. There may be an impact or influence from the Semarang Regency Government's plans to develop and use the Senjoyo area as a tourism destination. The anticipated benefits include a rise in tourist and economic activity, which will raise incomes and improve the standard of living for those residing in the Senjoyo area by creating job and business opportunities. The location's transformation into a growth pole, which will influence the development of the surrounding area, is another anticipated outcome. In the meanwhile, if tourism development ignores the
environmental sustainability of the Senjoyo Area and the sustainability of its water sources, the adverse effects that are most likely to occur are harm to the physical environment of the Senjoyo Area and a reduction in the function of the Senjoyo Area as a water catchment area and area around springs due to physical development and activities. Consequently, research on the proper usage of the Senjoyo region and its water sources in Tengaran District, Semarang Regency, is required for regional development (Palupiningtyas & Pahrijal, 2023).

The Senjoyo Area is one of Semarang Regency's properties. The Senjoyo area is a location or territory that serves as a barrier between Bener village and Tegalwaton village in Tengaran District, Semarang Regency. The Senjoyo region is protected in the Semarang Regency's RTRW direction. Specifically, it serves as a protection area surrounding springs and water catchment. It works this way because the Senjoyo area is home to several springs with sufficient discharge to meet the local community's water needs (Maria et al., 2022).

There is a wide variety of activities in the Senjoyo area. The Senjoyo area's springs have a large water discharge, so PDAM Semarang Regency, PDAM Salatiga City, PT Damatex for industrial purposes, Infantry Battalion 411 Salatiga, and the surrounding community use them as a source of clean water (Palupiningtyas et al., 2020). They are also used for irrigation and the Senjoyo River for agriculture surrounding the Senjoyo area. The element that makes this place special is that, besides being utilized for amusement, people camp here, observe springs and conduct the kumkum rite at the Senjoyo Spring on specific days. The foundation of this kumkum ritual action is the belief in blessed springs; specifically, the belief is that the springs here result from Joko Tingkir's meditations in this location. This sets the Senjoyo location apart from the other Semarang Regency spring areas.

This study aims to examine how the Senjoyo Springs Area should be used in the development of Tegalwanto Village in Tengaran District, Semarang Regency, to raise local incomes.

LITERATURE REVIEW

Experts define nature tourism as a type of leisure activity that entails trips to natural settings or locations to take in, respect, and comprehend the diversity and beauty of nature. Tourism experts frequently draw attention to specific elements of natural tourism.

Agricultural potentials such as natural scenery, diversity, production and technological differences, and community culture are all used by nature tourism. Because it directly incorporates local people as tourist actors, nature tourism is considered a more profitable alternative to other forms of travel. In addition to improving society, the growth of natural
tourism will create new work opportunities. Resource conservation can also be achieved through nature tourism (Palupiningtyas & Mistriani, 2020).

Indonesia can prosper economically through tourism. Consequently, it is appropriate if the government names tourism as one of the critical pillars of Indonesia's creative economy. There is much room for agricultural tourism, often natural tourism, to grow into one of Indonesia's leading economic sectors. These two industries have tremendous economic potential if integrated into one sector, natural tourism, as the tourism industry continues to grow (Gurindawangsa et al., 2017). Increased education, leisure, and added value in the agricultural sector which includes land fisheries, plantations, animal husbandry, and food crop cultivation are the goals of nature tourism. Forested areas and other possible agricultural uses are included in nature tourism. (Andrew S. Poluan, 2017).

Expert in ecotourism Dr. David Weaver thoroughly analyses the concepts and methods of ecotourism in his book "Ecotourism Principles and Practices." Dr. Weaver addresses important topics like destination management, sustainability, and conservation in detail in his work, particularly regarding nature tourism (Mead et al., 1967). This book not only offers a thorough explanation of the fundamentals of ecotourism but also emphasizes how crucial it is to preserve ecological equilibrium and involve local populations in initiatives to protect the environment. Dr Weaver has significantly aided in directing practitioners, researchers, and policymakers in developing and promoting sustainable nature tourism through the integration of thorough evaluations and workable solutions (Palupiningtyas & Aryaningtyas, 2022).

Dr Anna Spenceley is an expert in responsible tourism. Her book, "Responsible Tourism: Critical Issues for Conservation and Development," focuses on important concerns concerning development and conservation in natural tourist regions (Kaseje et al., 1987). This book offers insightful advice on incorporating environmental and social responsibility into natural destination management. In addition to outlining the main obstacles that the tourism sector must overcome to become sustainable, Dr Spenceley offers detailed advice on doable tactics that can be used to encourage more conscientious traveller behaviour. As such, our work plays a significant role in helping practitioners and policymakers manage and develop natural tourism destinations by responsible development principles (Aryaningtyas & Palupiningtyas, 2017).

Due to its advantageous location between two government administrative areas Salatiga City and Semarang Regency the Senjoyo area physically borders the Salatiga Municipality. Regarding water resources, Semarang Regency is fortunate to have the Senjoyo spring. The Senjoyo tourism region is administratively situated in these two areas, offering strategic
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possibilities for using its diverse resources. This region, part of the Senjoyo River Basin, is crucial for PDAM Salatiga City's water use (Palupiningtyas & Yulianto, 2021). Most of the Senjoyo High School access road is composed of concrete and asphalt, and it is generally in good shape. The kungkum ceremony in Sendang Senjoyo, which is thought to have benefits as a spring resulting from Joko Tingkir's hermitage, is one of the area's cultural and recreational highlights. The Senjoyo tourist area is a physical location of strategic, financial, and cultural significance for the surrounding community.

RESEARCH METHOD(S)

The purpose of selecting Tegalwanto Village in Tenggaran District, Semarang Regency, as the Senjoyo Springs source is a popular tourist destination. Everyone the researcher happens to meet who shares the same traits can be regarded as a respondent and used as a sample. The management of Senjoyo Springs natural tourism (Community) (20 people), the Community (10 people), visitors to natural tourism (32 people), the Tegalwanto Village government (1 person), the Department of Semarang Regency Tourism (1 person), and Semarang Regency (1 person) are among the 65 samples that this research collected from internal and external sources (S. Pranata, 2023).

Analysis of Senjoyo Springs Utilization

SWOT analysis was used to examine the growth of natural tourism at Senjoyo Springs in the Semarang Regency. Three steps of data analysis were done to determine the strategy. Using the External Factor Evaluation (EFE) and Internal Factor Evaluation (IFE) matrices, the external and internal environments are analyzed to begin the data input process. SWOT and internal-external (IE) analyses are part of the second step, matching. The External Factor Evaluation (EFE) and Internal Factor Evaluation (IFE) matrices are the IE and SWOT data analysis sources. Long-term planning based on management that considers opportunities and threats in addition to strengths and weaknesses is done through applying SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats)(Novirsari & Ponten Pranata, 2021). By examining internal strengths and weaknesses, opportunities and external threats, this analysis is utilized to determine the existing condition and design a business model.

Contribution of Senjoyo Springs to the Development of Tegalwanto Village

The revenue generated by the Senjoyo Springs’ use as a trading and renting resource for the neighbourhood(S. P. Pranata, 2022). The difference between farming revenues and farming costs cash and non-cash determines the overall profitability of a farming business and, consequently, the success or failure of the enterprise for the local community.
The income formula is as follows:

\[ I = TR - TC \]

**Information:**

\[ I = \text{Income (Rp)} \quad TR = \text{Total Receipts (Rp)} \]
\[ TC = \text{Total cost (Rp)} \]

This study's analysis of local community income is derived from sales revenue and revenue received directly from service providers via visitors.

\[ I = I_a + I_{na} \]

**Keterangan :**

\[ I = \text{Total Receipts (Rp)} \quad I_a = \text{Total Revenue from services} \]
\[ I_{na} = \text{Total Buying and Selling Income} \]

**Income contribution from agricultural nature tourism:**

\[ Kpa = \left( \frac{Ppa}{P} \right) \times 100\% \]

**Information :**

\[ Kpa = \text{Contribution to Natural Tourism Income} \]
\[ Ppa = \text{Community Income from Nature Tourism} \]
\[ P = \text{Total Revenue} \]

Information regarding revenue and how tourism affects the local community's revenue can be found in natural tourism. The analysis's findings can be utilized to determine what has to be done to further the Tegalwanto Village Development idea.

**FINDINGS AND DISCUSSION**

**Analysis of Senjoyo Springs Utilization**

The tourism development strategy for Senjoyo Springs is analyzed using SWOT analysis. A SWOT analysis was conducted based on the opportunities, threats, weaknesses, and strengths listed in Tables 1 and 2. The results of internal and external forces include opportunities, threats, weaknesses, and strengths. Senjoyo Springs's natural tourist strengths and weaknesses are the basis of the IFE matrix, whilst opportunities and threats to Senjoyo Springs' utilization are the basis of the EFE matrix. The IFE and EFE matrices for each statement item are then given weights using the pair comparison model weighting.

**Table 1. Analysis of Internal Factors in the Use of Senjoyo Springs (IFAS)**

<table>
<thead>
<tr>
<th>No</th>
<th>Internal factors</th>
<th>Weight</th>
<th>Ratings</th>
<th>Weight x Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The location is strategic and not far from Semarang City</td>
<td>0.15</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>2.</td>
<td>Climatic and environmental conditions suitable for tourism</td>
<td>0.20</td>
<td>3.5</td>
<td>0.7</td>
</tr>
</tbody>
</table>
3. Excellent water quality produced 0.15 4 0.6
4. The community responded well to the use of Senjoyo Springs 0.20 4 0.8
5. Friendliness of the local community 0.15 3.5 0.525

<table>
<thead>
<tr>
<th>Strength Indicator</th>
<th>Weight</th>
<th>Ratings</th>
<th>Weight x Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.85</td>
<td></td>
<td></td>
<td>3.225</td>
</tr>
</tbody>
</table>

Weakness Indicator

| 1. Capital is still lacking | 0.15 | 2 | 0.2 |
| 2. Lack of public knowledge in developing natural tourism businesses | 0.10 | 1.5 | 0.15 |
| 3. Limited facilities and means of playing in water games | 0.10 | 1.5 | 0.15 |
| 4. Lack of variety of services | 0.10 | 1 | 0.1 |
| 5. Prices for services and goods are quite expensive | 0.10 | 1 | 0.1 |

<table>
<thead>
<tr>
<th>Weakness Indicator</th>
<th>Weight</th>
<th>Ratings</th>
<th>Weight x Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td></td>
<td></td>
<td>0.7</td>
</tr>
</tbody>
</table>

Difference between Strength and Weakness Indicators 2.525

IFAS 1.35 3.925

Source: Results of Primary Data Analysis (2023)

It is evident from the IFAS matrix in the preceding table that Senjoyo Springs achieved a difference score of 0.50 on external factors. With a score of 0.60 and a still open market, the strength component that matters most is the high interest of Senjoyo Springs visitors to return another time. The business needs to make use of these favourable vital aspects (Nasib et al., n.d.). It is also evident from the IFAS matrix above that community actors' greatest vulnerability, with a score of 0.30, is their inability to satisfy tourists who come for natural tourism. In order to grow the business, Senjoyo Springs Strawberry Natural Tourism must quickly overcome any weaknesses that hurt its business operations by leveraging its opportunities and strengths.
The difference scores attained in the Senjoyo Springs natural tourism industry in Semarang Regency for external variables of 1 are displayed in the EFAS matrix in the above table. The strong desire of visitors to the Senjoyo Springs natural tourism destination to return is the opportunity element with the most significant impact. With a score of 0.6 once more. Managers of nature tourism must make use of these favourable opportunity characteristics (Nasib et al., n.d.). With a score of 0.375, the EFAS matrix above shows that extreme or unpredictable weather changes are the most significant concern. To grow the Senjoyo Springs natural tourism business in Semarang Regency, threat factors that negatively impact the company's business activities must promptly be addressed, and the company's strengths and opportunities must be dealt with promptly. As managers, we are responsible for maintaining a tidy and comfortable environment for guests, as this will draw in tourists.

The IFE and EFE matrices' data provide the basis for the SWOT analysis. The findings indicate that Senjoyo Springs natural tourism in Semarang Regency can be developed by four SO, three WO, three ST, and three WT techniques. The final SO strategies are as follows: (1) enhancing Senjoyo Springs' quality, which is generated with potential natural circumstances; (2) utilizing natural tourist conditions strategically; and (3) the community adapts well to the way of life of those who wish to get back to nature. (4) Senjoyo Springs natural tourism in Semarang Regency will have access to additional markets thanks to the cordial nature of natural tourism operators.

The ensuing WO strategies are as follows: (1) lowering the capital shortfall by utilizing the free market; (2) lowering the cost of Sumber Springs Senjoyo by tasting and selecting your produce; and (3) broadening the range of goods available due to demand. Visitors delight in Senjoyo Springs's processed goods.

The following are the resulting ST strategies: (1) Senjoyo Springs's environmental and climatic circumstances are conducive to growing the natural tourist industry, and they may be modified to account for erratic weather fluctuations. (2) Making natural tourism managers more approachable to help alleviate tourist dissatisfaction with Senjoyo Springs's natural tourism garden amenities and services. (3) Increasing the facilities and infrastructure to get to natural
tourist destinations in order to combat the danger of competing Senjoyo Springs natural tourist attractions and other natural tourist attractions.

The resulting WT strategy is as follows: (1) Senjoyo Springs natural tourism area’s human resource and community knowledge quality will be improved to deal with climate change, which creates obstacles for tourism; (2) Senjoyo Springs natural tourism area’s equipment will be improved to face the threat of similar natural tourism in Semarang Regency; and (3) the variety of products offered will be increased to face competition from other natural tourism in Semarang Regency and threats of similar natural tourism.

**Contribution of Natural Tourism at Senjoyo Springs to Community Income.**

This study uses the revenue generated over the holidays by those who engage in nature tourism and those who sell and offer related services. This classification shows how much Senjoyo Springs's natural tourism contributes to the local economy. Typically, holidays fall on a weekend. The findings of the revenue study of the towns surrounding natural tourism are displayed in Table 3 below.

### Table 3. Analysis of business income regarding natural tourism

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Reception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Rental/Services (Rp)</td>
<td>45,756,000</td>
<td></td>
</tr>
<tr>
<td>2. Selling (Rp)</td>
<td>120,345,500</td>
<td></td>
</tr>
<tr>
<td>B. Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Capital (Rp)</td>
<td>32,876,500</td>
<td>38.70</td>
</tr>
<tr>
<td>2. Maintenance (Rp)</td>
<td>23,356,500</td>
<td>27.49</td>
</tr>
<tr>
<td>3. Labor (Rp)</td>
<td>20,678,000</td>
<td>24.34</td>
</tr>
<tr>
<td>4. Depreciation (Rp)</td>
<td>3,789,500</td>
<td>4.46</td>
</tr>
<tr>
<td>5. Other Fees (Rp)</td>
<td>4,256,500</td>
<td>5.01</td>
</tr>
<tr>
<td>Total cost (Rp)</td>
<td>84,957,000</td>
<td></td>
</tr>
<tr>
<td>C. Reception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Rental/Services (Rp)</td>
<td>15,879,500</td>
<td></td>
</tr>
<tr>
<td>2. Selling (Rp)</td>
<td>35,388,500</td>
<td></td>
</tr>
<tr>
<td>Total Income (Rp)</td>
<td>51,268,000</td>
<td></td>
</tr>
<tr>
<td>D. Contribution of nature tourism to total community income (%)</td>
<td></td>
<td>30.97</td>
</tr>
</tbody>
</table>

Source: Results of Primary Data Analysis (2023)

Table 3 displays income, expenses, and receipts. The most significant expenses are 38.70% for construction costs and 27.49% for maintenance charges. Repairs are typically done once every one to two weeks.

There are two categories of labour: Extra-Family Labor (TKLK) and In-Family Labor (TKDK). The labour cost is 24.34% of the total cost that the community bears; other expenses include taxes on land, water, and electricity (Lestariningsih et al., 2018).

Based on the proportion of sales, natural tourism accounts for only 11% of all services sold to tourists. The idea of natural tourism has the benefit of allowing for a considerably higher
selling price for consumers. Traders can sell their products for IDR 20,000–25,000 on average. Naturally, the price differential encourages people to trade using the idea of natural tourism. Individuals might supplement their income by offering their goods for sale under natural tourism. Additionally, the same thing was said by (Kummitha et al., 2018) Who mentioned that the merchant family receives additional earnings from natural tourism activities?

According to the revenue analysis, natural tourism brings in IDR 15,789,500 for the community. This demonstrates that 30.97 per cent of the community's overall revenue comes from natural tourism. This is consistent with studies (Sadowski & Wojcieszak, 2019) Regarding the financial advantages of nature tourism, it was discovered that the community's revenue from this industry was roughly equal to the income generated by their households. His research indicates that the tourism industry's contribution to total income is approximately 28.4%. The results support the notion that nature tourism offers a substitute means of subsistence for individuals and their families.

The study's findings demonstrate that ecological tourism raises people's standard of living. This is consistent with the findings of the study carried out by (Schilling et al., 2012) It claims that the earnings of tourist-related enterprises are positively and significantly impacted by natural tourism. This particularly affects community members who operate on a small basis. Furthermore, research (Prayudhi & Sativa, 2021) demonstrates how, in a single holiday, star fruit natural tourism boosts the local economy and level of acceptability (Lestariningssih et al., 2018) demonstrates how the income of residents in Semarang Regency's Bandungan subdistrict has increased due to natural tourism.

CONCLUSION AND RECOMMENDATION

The SWOT analysis completed on Senjoyo Springs' utilization provides a thorough picture of the internal and external elements influencing the growth of natural tourism there. While the EFE (External Factor Evaluation) Matrix addresses external opportunities and dangers, the IFE (Internal Factor Evaluation) Matrix focuses on internal strengths and weaknesses. Senjoyo Springs has considerable development potential, as shown by the IFAS (Internal Factor Analysis Summary) score of 3,925, derived from the difference between strength and weakness indicators. A difference score of 3.55 in the EFAS Matrix (External Factor Analysis Summary) suggests that external factors support Senjoyo Springs' natural tourist industry. Potential opportunities that can be taken advantage of include markets that are still open and significant visitor interest. However, some hazards, like changing weather patterns and commercial competition, need to be mitigated. Applying SWOT analysis results
in a development strategy that is targeted. The Senjoyo Springs quality improvement and strategic utilization are the focal points of the SO (Strengths-Opportunities) plan. Two WO (Weaknesses-Opportunities) strategy components include expanding product variety and lowering capital shortages. The ST (Strengths-Threats) plan addresses facility improvements and weather adaptation. In order to compete, the WT (Weaknesses-Threats) strategy focuses on raising the caliber of products and human resources.

Examining Senjoyo Springs Nature Tourism's revenue contribution from an economic analysis perspective offers further insightful information. In addition to being a tourist attraction, natural tourism creates economic opportunities for the local community by providing 30.97% of the total cash generated in the area. These findings align with earlier studies that demonstrated the beneficial effects of nature tourism on household income and the local economy.

The general conclusion in this regard is that Senjoyo Springs has much promise for the growth of environmentally conscious tourism. Utilizing unique natural resources and community support can improve contributions to community revenue, foster local economic growth, and produce sustainable economic benefits when the right policies are implemented.

REFERENCES


