THE PRIORITIZATION OF SUSTAINABLE DOLPHIN WATCHING TOURISM DEVELOPMENT STRATEGY IN LOVINA BEACH BALI

A PRIORIZAÇÃO DA ESTRATÉGIA DE DESENVOLVIMENTO SUSTENTÁVEL DO TURISMO DE OBSERVAÇÃO DE GOLFINHOS EM LOVINA BEACH BALI

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Abstract: This research aimed at analysing the prioritization strategies used in developing sustainable dolphin-watching tourism at Lovina Beach. The study was conducted at Lovina Beach by involving five informants who were selected by using purposive sampling as the research subjects. They were a government, boat driver, villager, academician, and tourist. The data were obtained through FGD (focus group discussion), observation, interview, and document analysis. The instruments used were observation sheet, interview guide, and note list. The SWOT (strength, weakness, opportunity, and threat), and AHP (analytical hierarchy process). The data were also interpreted quantitatively. The results showed that; there were five criteria used in obtaining the prioritization strategies implemented in developing dolphin watching tourism sustainably. Those criteria were; human resource readiness, cost advantage, urgency, risk, and differentiation. It was found out that the prioritized strategies were; coaching and socializing, increasing local communities' awareness, empowering the management of rubbish and waste, diversifying and developing Another finding revealed that internal and external factors influenced the development itself.

Keywords: Dolphin. Prioritization. Sustainability. Tourism.

Resumo: Esta pesquisa teve como objetivo analisar as estratégias de priorização usadas no desenvolvimento do turismo sustentável de observação de golfinhos em Lovina Beach. O estudo foi realizado em Lovina Beach, envolvendo cinco informantes que foram selecionados por meio de amostragem intencional como sujeitos de pesquisa. Eles eram do governo, motoristas de barco, moradores de vilarejos, acadêmicos e turistas. Os dados foram obtidos por meio de FGD (discussão em grupo de foco), observação, entrevista e análise de documentos. Os instrumentos utilizados foram a folha de

observação, o guia de entrevista e a lista de anotações. O SWOT (força, fraqueza, oportunidade e ameaça) e o AHP (processo de hierarquia analítica). Os dados também foram interpretados quantitativamente. Os resultados mostraram que havia cinco critérios usados na obtenção das estratégias de priorização implementadas no desenvolvimento sustentável do turismo de observação de golfinhos. Esses critérios foram: prontidão dos recursos humanos, vantagem de custo, urgência, risco e diferenciação. Descobriu-se que as estratégias priorizadas foram: treinamento e socialização, aumento da conscientização das comunidades locais, fortalecimento do gerenciamento de lixo e resíduos, diversificação e desenvolvimento.

Palavras-chave: Golfinho. Priorização. Sustentabilidade. Turismo.

1. INTRODUCTION

Tourism has been viewed as an industry having the biggest contribution for employment and service as way for increasing values of   a certain country (Ozdemir & Demirel, 2018). It is recognized as a fundamental element determining the potential of a particular area to influence the society in conserving and preserving the space by attracting many tourists towards the area itself (Cvetković et al., 2023). Feili et al., (2017) argue that tourism having a vital role in improving the income of several countries which significantly affects their economies through the goods and services payment. It emerges a paradigm among the society which is developing a tourism of a certain region tends to brings several benefits including economic, social, and culture (Badarab et al., 2017). This paradigm leads people to perceive tourism as a socio-cultural and economic phenomenon (Ulkhaq et al., 2019).

As a socio-cultural and economic phenomenon, the vital role of tourism in increasing a nation's incomes occurring in Indonesia. Tourism has been established as the main sector which increases Indonesian's incomes providing a wide job opportunity and reducing poverty in an area. Suryani (2017) states that Indonesia has a lot of potencies to develop for its tourism sectors whether it is developed from its nature, social aspect, or culture. A high motivation in developing tourism sector in Indonesia is due to the increasing number of tourist visits since 2015 until today in which it has achieved the target expected by Indonesian Ministry of Tourism (Arismayanti, 2021). Therefore, emphasizing the tourism sector is still continuously conducted by advancing the potential parts of Indonesia.

Indonesia has been regarded as a country with a large coastal area abundant of natural resources in the sea. Those enormous potential resources are frequently utilized as marine tourism to attract the tourist visits (Nurhayati et al., 2019; Sudarmo, 2020). Marine tourism

is utilized as a new emerging economic icon in promoting Indonesian tourism sector with animal attractions (Guntoro, 2021). The current issue shows that the existing condition of marine tourism management in Indonesia is not optimal (Supriyanto, 2022). It still requires in-depth study and deliberative planning related to Indonesian marine tourism management to achieve an optimal preservation and utilization of Indonesia tourism sector to bring maximum contribution towards the society's welfare (Arismayanti, 2021).

The development of marine tourism has been started in Bali which has been famous of its cultural destination. Balinese culture-based tourism not only becomes the attraction for the tourists but the local government starting to introduce the marine tourism for all the visitors whether they are foreigners or domestic tourists. One of the areas that has a rapid development of marine tourism is the island of Bali which has a variety of marine tourism destinations, one of which is dolphin watching on Lovina Beach, Buleleng Regency. Lovina Beach is one of the famous tourist attractions in north Bali which has the beauty of calm sea water, blackish sand and sea with dolphins. It offers dolphin attractions in the morning that can be watched about 1 km from the beach (Mustika et al., 2013).

The Lovina Beach area experiences fluctuations in the level of tourist visits from 2018 to 2022. Based on data from the Buleleng Regency Tourism and Culture Office (2022), tourist visits in the last 5 years starting from 2018-2022. For 2018, it is 61,738, in 2019 it is 57,627, in 2020 it is 12,947, in 2021 it is 13,817 and in 2022 there is an increase in the number of visits which reached 65,010 tourists, from latest data in 2022 Lovina Beach is ranked 4th (four) based on the number of domestic and foreign tourist visits compared to 86 tourist attractions in Buleleng Regency. Dolphin-watching tourism has not experienced significant development. It needs to be further developed and managed for the better.

Several researches have been conducted to investigate the development of marine tourism in Lovina beach, Buleleng, Bali. Putra (2020) investigates the factors influencing the decrease of tourist visits to Lovina beach. It reveals that the factors are related to social factor (society), regional factor, and the promotion itself. Sumadi (2020) studies about the use of local wisdom to promote the socio-economic aspects gained from the tourism at Lovina beach. The finding shows that the implementation of local wisdom brings many socio-economic benefits. Kusumawati et al., (2023) analyze the supporting aspects and environmental adjustment in developing sustainable tourism at Lovina beach, Buleleng, Bali. It discovers that tourism suitability index is still in a good category in which the supporting facilities used to promote the tourism through social media and increase the infrastructure at

Lovina beach, Buleleng, Bali. Those studies indicate that tourism development has been conducted continuously to promote the marine tourism at Lovina beach, Buleleng, Bali. Further study still requires to be conducted to find out the sustainable development of marine tourism particularly the dolphin watching viewed from the prioritization strategy used to promote the attraction itself.

2. RESEARCH METHODS

The current study used mix-method as the research approach since the data were collected and analysed quantitatively and qualitatively. The study was conducted at Lovina beach, Buleleng, Bali since the research objects were the management and development of dolphin-watching tourism viewed from the prioritization strategy used including the factor influencing its development. There were five informants involved in this study in which they were a government, boat driver, villager, academician, and tourist. The data were obtained through FGD (focus group discussion), observation, interview, and document analysis. The instruments used were observation sheet, interview guide, and note list. The SWOT (strength, weakness, opportunity, and threat), and AHP (analytical hierarchy process). The data were also interpreted quantitatively.

3. FINDINGS AND DISCUSSION

3.1. Findings

The Factors Influenced the Sustainable Development of Dolphin Watching Tourism at Lovina Beach

SWOT analysis was conducted to find out the factors influencing the sustainable development of dolphin watching tourism at Lovina beach. The analysis was conducted into two classifications; internal factors analysis summary (IFAS) and external factors analysis summary (EFAS). Those two analysis results were presented in table 1 and table 2.

Table 1. The Result of Internal Factors Analysis Summary (IFAS)

Internal Factors	Items	Responses	Quality	Rate	Total
Strengths	Lovina beach has a beautiful and long black sand.	252	0,12	4,00	0,47
	Lovina beach has dolphins.	251	0,12	3,98	0,46
	Lovina beach is a place for immigrated dolphins.	249	0,12	3,95	0,46
	The management of Lovina beach involves the society.	204	0,09	3,24	0,31
	The dolphin watching tourism increases the villagers' economy.	204	0,09	3,24	0,31
	Lovina beach is included in Buleleng Regency marine conservation area regulations.	244	0,11	3,87	0,44
	Lovina beach has synergistic management.	177	0,08	2,81	0,23
	There is human resources supporting dolphin watching activities.	178	0,08	2,83	0,23
Total		1.759	0,81	27,92	2,90
Weaknesses	The chasing actions to find the dolphin attractions.	69	0,03	1,10	0,04
	There are many boats approach the dolphins.	68	0,03	1,08	0,03
	There are many guides not following the standard operational procedure (SOP).	68	0,03	1,08	0,03
	The emergence of water pollution due to the use of gasoline-powered boat engines.	124	0,06	1,97	0,11
	The rules for managing dolphin viewing have not been implemented optimally.	69	0,03	1,10	0,04
Total		398	0,19	6,33	0,25
Total		2.157	1,0	34,25	3,15

Based on table 1, it was found out that the nature of Lovina beach becoming the strength which achieved the highest rate score; 4.00. It indicated that the nature could be prioritized in developing the dolphin watching tourism at Lovina beach. It was found that

the most potential weakness was the emergence of water pollution due to the use of gasoline-powered boat engines with the rate score; 1.97. Those findings showed that the weakness could be a threat bringing negative impact to the nature of Lovina beach which needed to be anticipated in developing the dolphin watching tourism. In addition, the external indicators influenced the development of dolphin watching tourism at Lovina beach were presented in table 2.

Table 2. The Result of External Factor Analysis Summary (EFAS)

External Factors	Items	Responses	Quality	Rate	Total
Opportunities	Having better Jukung facilities and complements.	174	0,08	2,76	0,22
	The maintenance of dolphins' habitual environments.	185	0,09	2,94	0,25
	Having a trip with a different schedule.	197	0,09	3,13	0,29
	A high participation contributed by the villagers in preserving dolphins' habitual environments.	190	0,09	3,02	0,27
	Requiring a socialization for the Jukung guides related to the using code.	249	0,12	3,95	0,46
	Requiring supporting facilities for dolphin watching tourism.	241	0,11	3,83	0,43
	Requiring waste management.	232	0,11	3,68	0,40
Total		1.468	0,69	23,30	2,33
Threats	There is an activity disturbing the dolphins.	81	0,04	1,29	0,05
	There is a threat towards dolphins' extinction due to dolphin watching tourism.	112	0,05	1,78	0,09
	A lot of Jukungs (boats) causes dolphins' avoidance and scare.	116	0,05	1,84	0,10
	Tourists' disappointment due to dolphins not appearing for the attractions.	128	0,06	2,03	0,12
	Marine pollution caused by the rubbish and waste.	113	0,05	1,79	0,09

	A rainy season perceived as a weather threat.	118	0,06	1,87	0,10
Total			668	0,31	10,60	0,56
Total			2.136	1,0	33,90	2,89

The analysis result presented in table 2 indicated that the highest opportunity was a requirement for conducting a socialization for the Jukung guides related to the using code with the rate score; 3.95. Meanwhile the highest threat was tourists' disappointment due to dolphins not appearing for the attractions. with the rate score 2.03. The SWOT analysis result was framed into IE (internal and external) matrix presented in figure 9.
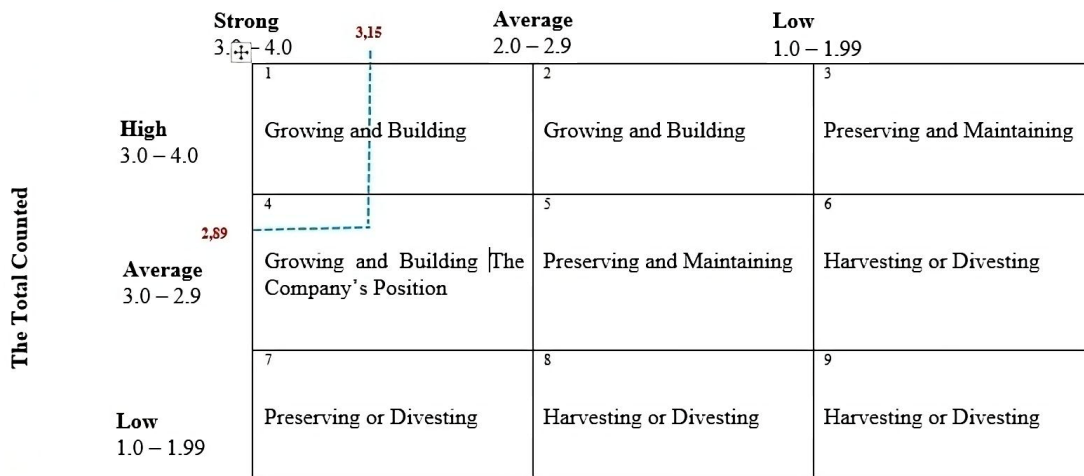

Figure 1. The IE Matrix

The matrix indicated that dolphin watching tourism at Lovina beach categorized into quadrant IV which was growing and building strategy. It was indicated by the mean score of 3.15 horizontally and vertically at 2.89. It was categorized as a strong category which meant that intensive strategies required to be implemented to grow and build the dolphin watching tourism. Those intensive strategies could be in the form of marketing penetration, marketing development, and product development.

The Prioritization of Sustainable Dolphin Watching Tourism Development Strategy at Lovina Beach Bali

In determining the priority of sustainable dolphin watching tourism development strategies at Lovina beach, AHP or analytical hierarchy process was used to analyse the condition. It consisted of five criteria; 1) cost advantage, 2) differentiation, 3) risk, 4) human resource readiness, and 5) urgency. Decision makers were assessed through alternative

strategies systematically by making pairwise comparisons of each selected criterion, using concrete data based on the results of thinking and including important information. The results were gained from the consideration of SWOT analysis, IFE, EFE, and experts through the focus group discussion (FGD) stage for the priority of dolphin sustainably watching tourism development strategies at Lovina Beach. The hierarchical structure was presented in figure 2.
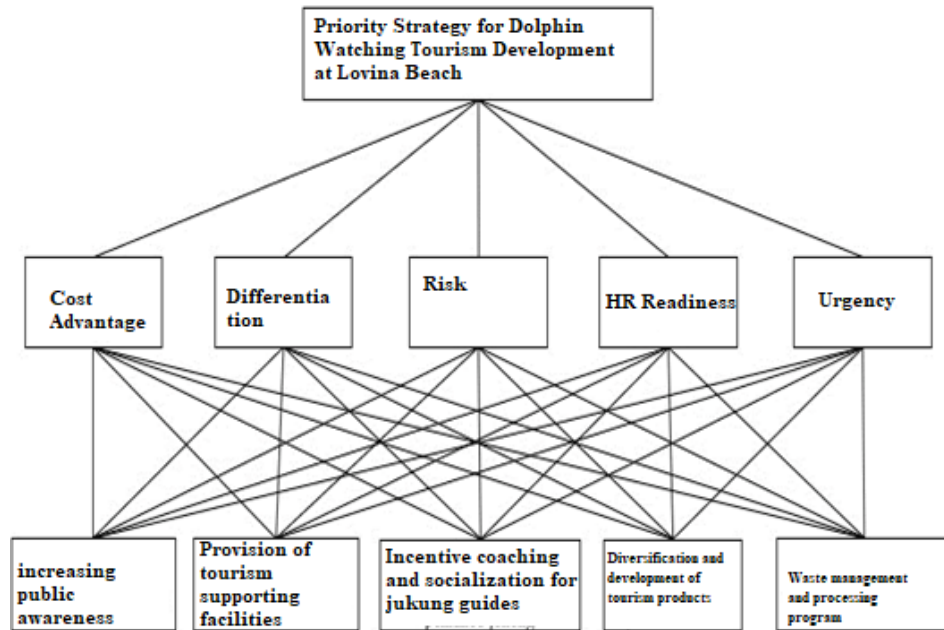

Figure 2. Hierarchical Structure of Priority Strategies for the Development of Sustainable Dolphin Watching Tourism at Lovina Beach

Table 3. Research Hierarchy Criteria

No	Criteria	Explanation	Source
1	Cost Advantage	A strategy that concentrated attention on the lowest cost but comprehensive activities.	Porter (1980)
2	Differentiation	A strategy that formed a unique product with other competitors selling almost the same product, through product uniqueness, differentiation costs, creating uniqueness.	
3	Risk	A strategy that overcame the risks in threats affecting the continuity of the company.	Vargas (2010)
4	Urgency	A strategy that had urgency in decision-making, for an action to be taken based on the priority of urgency	
5	Human Resources	A strategy used for implementing human resources that had competencies in competitive advantage	Rummelt (2000)

The strategies presented in table 3 were taken to determine the decision choice for solving the problem. In addition, the alternatives strategies were also selected based on the SWOT matrix regarding the internal and external factors affecting the development of dolphin watching at Lovina beach. The following alternative strategies were;

a. Strategy 1: Increasing awareness of local communities, especially jukung (ship) guides to maintain and preserve dolphin habitat at Lovina Beach

b. Strategy 2: Provision of supporting facilities such as; GPS devices, docks, ticketing, safety posts, toilets, wash basins, information offices and location guides.

c. Strategy 3: Intensive coaching and socialisation for jukung (ship) guides regarding code of conduct, safety actions and first aid

d. Strategy 4: Diversification and development of dolphin watching and marine tourism products at Lovina Beach.

e. Strategy 5: Empowerment of the management and local villages on waste management and processing.

In the priority criteria for cost advantage was to determine costs based on activities carried out in total. It was necessary to make efforts efficiently both in designing, producing, distributing and marketing products to obtain the cost advantage. The price competition faced by dolphin-watching tours on Lovina Beach was the price wars guides and buffer villages. Bu leleng Regency Tourism Department was still conducting an assessment and trial

stage to deal with the price wars. The government also collaborated with the jukung guide managers resulted an agreement and price equality for dolphin watching tour at Lovina beach.

Cost differentiation control was a strategy used for improving product differentiation. This strategy was implemented through several activities; increasing the source of uniqueness, structuring differentiation costs, changing regulations to create uniqueness. In determining the criteria for attracting tourists to dolphin watching tourism activities lied in the existence of dolphins living in their natural habitat, which was becoming a unique attraction for every tourist. The current jukung guide strategy was perceived as a way to attract interest and create a different experience from other dolphin attractions, including some jukung guides who provided additional services to increase the uniqueness of the product in the form of providing breakfast on the jukung, swimming with dolphins with rope facilities on the jukung, providing larger jukung facilities and more capacity, implementing dolphin watching tours at different hours, and dolphin watching tour package products combined with snorkelling.

Risk was a strategy to determine threat-based assessment criteria to control the risks that might be received by the company. Some obstacles as well as threats to dolphin watching tourism were found related to the number of jukung (ships) overloaded at one dolphin spot caused an anthropogenic disruption of dolphin activity. It was a phenomenon needed to be emphasized and disciplined for the guide particularly on their management to reduce threats to dolphins. It was required as a way of preserving dolphins.

Urgency was the strategy used to make an urgent decision considered as immediate action. It showed that prioritization was taken based on this urgent decision. In order to support dolphin-watching tourism activities at Lovina Beach in a sustainable manner, Buleleng Regency Tourism department formed a special organization through a dolphin-watching jukung guide association at five entry points. Those were processed on the next stage in which the organisation had a legal association. An immediate action could be taken by following applicable regulations.

Strategy for human resources (HR) readiness was a criterion that played an important role in running a company, both internal and external factors. It alerted the face of changes occurred to provide a competitive advantage including ability, competence, skill, and talent. The main human resource for dolphin watching tourism at Lovina Beach was the jukung guide who had a role as a guide as well as a jukung captain. Through the priority strategy for

the development of dolphin watching tourism was the emphasis on intensive coaching and socialisation for jukung guides as a service activity oriented towards education, skill, and talented based on the profession.

The results of AHP analysis showed that the criterion of human resource readiness was a priority consideration of stakeholders in determining priority strategies wit a consistency ratio (CR) value = 0.00794 (CR < 0.1). The CR value of this analysis had met the requirements in which it was concluded that the priority choices given by the experts were consistent and feasible to be used as the refrences. It was also found that the human resource readiness was the main factor to determine the strategy. It was related to the condition of current human resources at Lovina beach covering the ethic, knowledge, disciplines, and language, The prioritisation of criteria for sustainable dolphin watching tourism development strategies at Lovina beach was presented in figure 3.
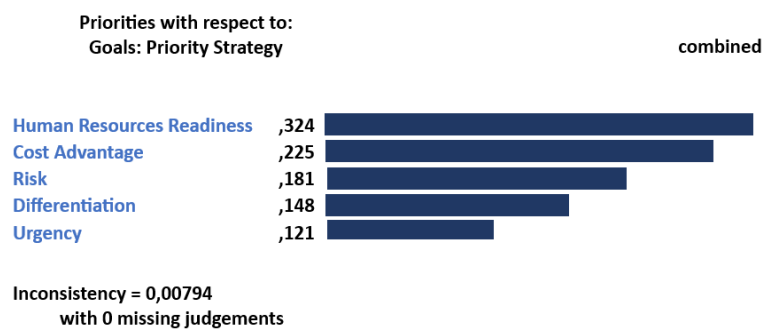

Figure 3. Prioritisation of Criteria for Dolphin Tourism Development Strategy at Lovina Beach

Prioritisation of dolphin watching tourism development strategies at Lovina Beach based on the criteria of "cost advantage" showed that strategy one (1) as a priority strategy, namely "increasing awareness of local communities, especially jukung guides to help maintain and preserve dolphin habitat on Lovina Beach" was a priority strategy for dolphin watching tourism development at Lovina Beach with Consistency Ratio (CR) = 0.04 (CR <0.1). Viewing the criteria of cost advantage affected the concern towards the involvement and equality of services provided by jukung guides from the provisions of five (5) entry points that were conducted by determining the cost in the form of an entrance ticket. Those affected the service standards againsted the disciplines in using the code for in the code of indirectly increasing awareness, sustainability of dolphin habitat at Lovina Beach. Prioritisation of

dolphin watching tourism development strategies at Lovina Beach based on the criterion of 'cost advantage' had been consistent and   in figure 4.

Priorities with respect to:
Goals: Priority Strategy >   combined
Cost Advantage

Strategy 1	,390
Strategy 3	,262
Strategy 5	,184
Strategy 4	,100
Strategy 2	,063

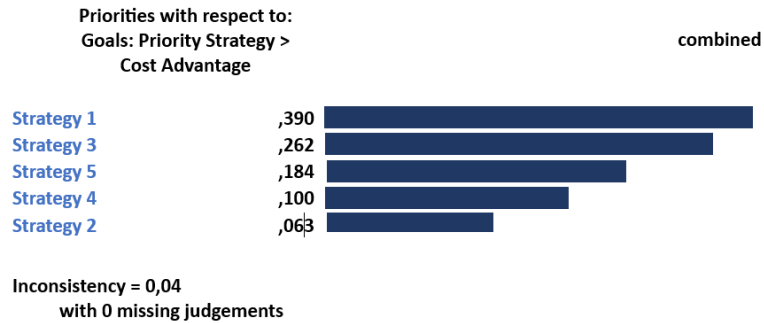**Inconsistency = 0,04**
with 0 missing judgements

Figure 4. Prioritisation of Dolphin Watching Tourism Development Strategy at Lovina Beach Based on Cost Advantage Criteria

Priority development strategies based on differentiation criteria showed that strategy five (5) as a priority strategy, namely "empowering the management and local villages for waste management and processing" with Consistency Ratio (CR) = 0.04 (CR < 0.1). The strategies that utilized products in the form of the unique attraction of dolphins living in their natural habits. It not only affected the preservation of dolphins but also the environment where they lived and developed including the involvement of related parties to the problem of waste. Prioritisation of dolphin watching tourism development strategies at Lovina Beach based on the differentiation criteria had been consistent as presented in figure 5.

Priorities with respect to:
Goals: Priority Strategy >   combined
Differentiation Criteria

Strategy 5	,385
Strategy 4	,242
Strategy 2	,169
Strategy 1	,121
Strategy 3	,083

Inconsistency = 0,04
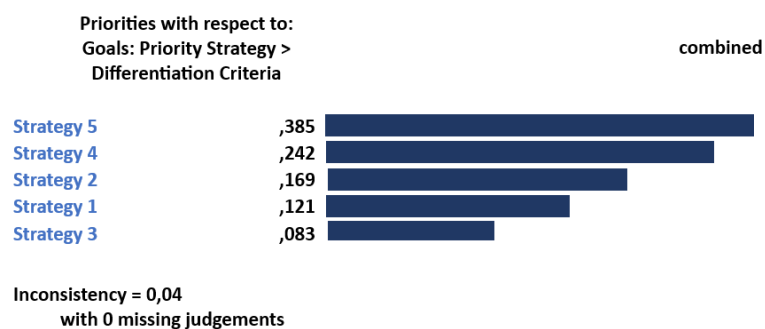**with 0 missing judgements**

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Figure 5. Prioritisation of Dolphin Watching Tourism Development Strategy at Lovina Beach Based on Differentiation Criteria

Priority strategy for the development of dolphin watching tourism at Lovina Beach based on risk criteria showed that strategy three (3) as a priority strategy, namely "coaching

and socialisation of incentives for jukung guides regarding the using code, safety actions and first aid" with Consistency Ratio (CR) = 0.01 (CR < 0.1). The priority criteria were based on the readiness of human resources (HR) owned by the jukung guide. The emphasis was on service based on the using code in delivering the tourists for dolphin watching tours. Therefore, the jukung guides were given more training, socialisation, intensive coaching on the using code. It was conducted as an action to overcome the negative impact or threats to the preservation and sustainability of dolphins at Lovina beach. Prioritisation of dolphin watching tourism development strategies at Lovina beach based on the criteria of 'risk' had been consistent presented in figure 6.

Priorities with respect to:
Goals: Priority Strategy > Risk   **combined**

Strategy 3	,422
Strategy 1	,197
Strategy 4	,155
Strategy 5	,131
Strategy 2	,096

Inconsistency = 0,01
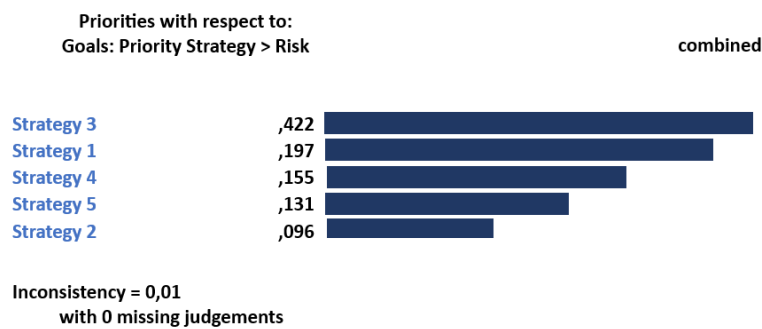**with 0 missing judgements**

Figure 6. Prioritisation of Dolphin Watching Tourism Development Strategy at Lovina Beach Based on Risk Criteria

Priority strategy for the development of dolphin watching tourism at Lovina Beach based on the criteria of "human resource readiness" showing that strategy three (3) as a priority strategy, namely "coaching and socialisation of incentives for jukung guides" it was regarded as a using code of safety actions and first aid with Consistency Ratio (CR) = 0.0044 (CR <0.1). The result of SWOT analysis particularly on the domain of weaknesses, the human resources covered two main points; jukung guides, and supports of dolphin watching tourism activities. The strategies were implemented by conducting socialisation, coaching, and training on an ongoing basis to improve the quality of human resources in providing a better service and having the competitiveness. Prioritisation of dolphin watching tourism development strategies at Lovina Beach based on the criteria of human resource readiness was consistent as presented in figure 7.

Priorities with respect to:
Goals: Priority Strategy > Human Resources Readiness

combined

Strategy 3	,243
Strategy 4	,227
Strategy 5	,201
Strategy 1	,195
Strategy 2	,135

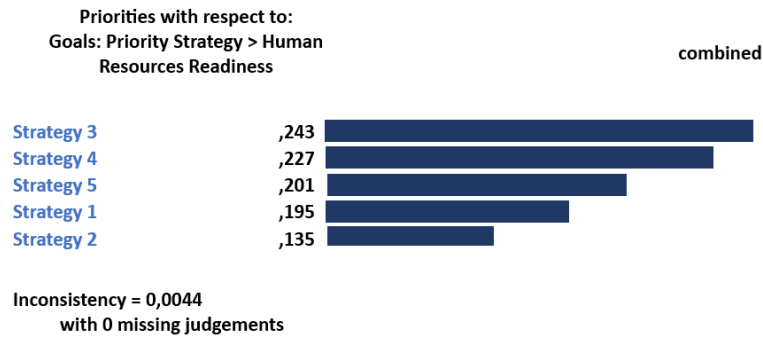Inconsistency = 0,0044
with 0 missing judgements

Figure 7. Prioritisation of Dolphin Watching Tourism Development Strategy at Lovina Beach Based on HR Readiness Criteria

Prioritisation of development strategies based on urgency criteria showed that strategy five (5) was a priority strategy, namely "empowering the management and local villages towards waste management and processing" with Consistency Ratio (CR) = 0.02 (CR < 0.1). The jukung guides as the management and actors required a cooperation and involvement in tackling marine debris. These problems indicated that a programm and action immediately needed to find the solutions related to marine cleanliness through proper and sustainable waste management and processing. Prioritisation of dolphin watching tourism development strategy at Lovina beach based on urgency criteria was consistent as presented in figure 8.

Priorities with respect to:
Goals: Priority Strategy > Human Resources Readiness

combined

Strategy 3	,243
Strategy 4	,227
Strategy 5	,201
Strategy 1	,195
Strategy 2	,135

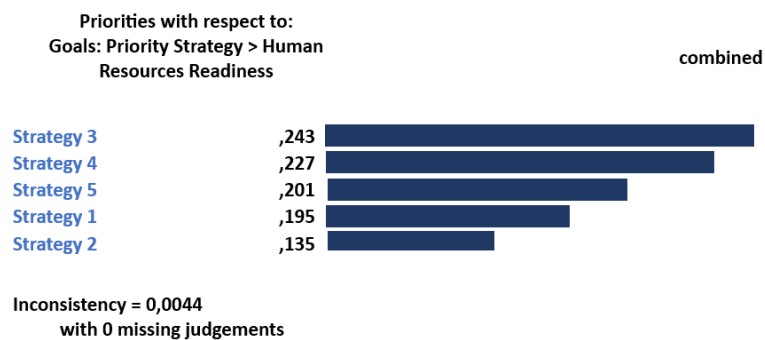Inconsistency = 0,0044
with 0 missing judgements

Figure 8. Prioritisation of Dolphin Watching Tourism Development Strategy at Lovina Beach

Priority strategies for the development of sustainable dolphin watching tourism at Lovina beach based on all the criteri showed that strategy three (3); intensive coaching and

socialization for jukung guides regarding to the using code, safety actions, and first aids achieved the highest percentage. It was followed by the strategy for increasing the local community's awareness particularly in maintaining and preserving the dolphin's territory and empowering the local managers related to waste management and processing. It was also strengthened by the strategy to diversify and develop dolphin watching tourism products, and provide supporting facilities; GPS devices, ticketing, safety posts, toilets, rinse stations, information offices and location guides. Intensive coaching and socialisation were a priority strategy with Consistency Ratio (CR) = 0.01 (CR < 0.1). Based on all criteria, the strategies were consistent as presented in figure 9.
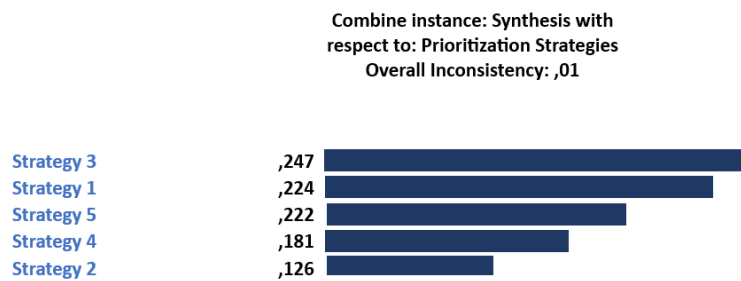
Combine instance: Synthesis with respect to: Prioritization Strategies
Overall Inconsistency: ,01

Strategy	Value
Strategy 3	,247
Strategy 1	,224
Strategy 5	,222
Strategy 4	,181
Strategy 2	,126

Figure 9. Prioritisation of Sustainable Dolphin Watching Tourism Development Strategy at Lovina Beach Based on All Criteria

In addition, to obtain the priority strategies for dolphin watching tourism in a sustainable manner, focus group discussion or FGD was conducted by involving the stakeholdrs, academicians, and community. The results of FGD were specifically elaborated, as follows.

Lack of Human Resources' Readiness

The result of focus group discussion was the lack of human resources' readiness due to the jukung guides knowledge and skill which still needed to be improved and adjusted regarding to the using code or known as code of conduct. The strategy used was the strategy three which was "coaching and socialization". It covered the incentives for jukung guides regarding the code of conduct, safety actions, and first aid. The program was conducted by emphasizing the education, ethic, uniformity in service delivery, and discipline towards the code of conduct.

The principle of the code of conduct for dolphin watching at Lovina Beach was prepared as a guide for tourists and jukung guides who want to do dolphin watching. The

code of conduct for tourists aimed to ensure that every visitor had an understanding, basic knowledge of the existence of Lovina Beach, and the characteristics of dolphin animals, ensuring the safety and satisfaction of tourists, while the code of conduct for jukung guides was given to understand the rules related to dolphin watching tours, starting before departure until returning to their original place. These efforts were required for synergizing all parties for avoiding profit oriented. Safety and first aid actions were required to anticipate unwanted events occurring on the sea. It was relevant to prevention efforts for jukung guides and tourists.

The Cost Advantage of Dolphin Watching Tourism

The aspect of governance regarding prices required more attention related to price wars among jukung guides and buffer village. The strategy related cost advantage was implemented through a consensus or mutual agreement between the jukung guides who joint business group and the guides who not joint the group itself. The jukung guides who were not the members required to join the group for receiving subsidized fuel. They were required to use the standard price that had been agreed within the group. The jukung guides were also given tourist identification card and Indonesian Tourist Association Member Card (KTA HPI) issued by the Central Leadership Council as a proof of joining the program and group.

The Preservation of Marine Area

In order to preserve the marine area, the risk criteria were implemented as a strategy in which there were five entry points regulated as the stage for watching the dolphins. Those entry points were; 1) Happy beach, 2) Celuk Agung beach, 3) Binaria beach, 4) Banyualit beach, 5) Kaliasem beach. The agreed entry points were formed into a legal management a governor's regulation. Community-based fisheries supervision was conducted to preserve the nature of dolphins. There were three supervision methods conducted; independent supervision, integrated supervision, and passive monitoring.

The concept of ecotourism development was a determination in the policy to preserve the nature or environment at Lovina beach in which it was in line with the conservation mission. General cleaning activities were conducted regularly by the government of Kalibukbuk village by involving the local community. The general cleaning had been programmed an in mutual cooperation with the tourists and visitors who came to Lovina beach during the scheduled program. The maintainance of coral reef was also

conducted as a preservation of living sources for the marine biota. In addition, the vastness of the ocean not ruled out the possibility of garbage flowing with the swift water. It was found that seen many garbages appeared on the surface of the water when tourists took part in dolphin watching tours. Measures taken to reduce rubbish going directly to the sea were installing iron nets in several rivers. Considering the cleanliness and sustainability of sea water were required to be anticipated in order to reduce pollution in the water. The government, especially the Buleleng Regency Tourism Department had created several breakthroughs related to this problem through cooperation with the BKSDA. It was included to the experimental stage with the use of alternative engines both electric and solar power for more friendly energy sources.

4. Discussion

The current study found out that there were five criteria used as priority strategies for developing dolphins; human resource readiness, cost advantage, urgency, risk, and differentiation. The findings were relevant to the previous study conducted by Purwita and Suryawan (2018). The previous study concerned the development of Lovina beach as ecotourism in which it discovered the strategy of human resources readiness. It was focused on developing the destination by improving the knowledge and skills of human resources particularly the tour guides at Lovina beach. It also strengthened the recent study conducted by Rismayani et al., (2023). The study discovered that conducting a socialization and trainee for the guides was effective for improving their skills to increase the quality of tourism destination in the new normal era. The priority strategy related to human resources' readiness found in this study was also relevant to the principle of developing tourism destination stated by Putra and Lagatama (2020). It was stated that the ability and competency of human resources had a significant role in developing a certain tourism destination in which they were demanded to participate optimally in building the growth of the destination.

The AHP analysis conducted in this study showed that the prioritized strategies were; coaching and socializing, increasing local community's awareness, empowering the management of rubbish and waste, diversificating and developing dolphin watching products, and providing suppoting facilities. Those strategies were relevant to the strategies discovered by Bahiyah and Hidayat (2018) in developing beach areas in Probolinggo. The

study revealed that there were also five strategies used; improving local community's awareness, coordinating with private parties, developing tourism attraction, repairing accessibility and facilities. It was also similar to the strategy found by Sumadi (2020) in which increasing the local community's awareness was categorized as relationship approach. The strategy of providing supporting facilities could be a further action towards a study conducted by Putra (2020) indicating that the decreasement of tourist visits at Lovina beach was due to the lack of supporting facilities. Meanwhile the current study implemented the prioritization strategy of providing supporting facilities.

Another finding showed that internal and external factors influenced the suitable development of dolphin watching tourism at Lovina beach. It was relevant to the previous study revealing that internal and external factors used as the references for determining the strategies in which it also resulted controlling environment as the strategy (Wijayanto et al., 2019). The earliest studies also discovered the internal and external factors in exploring marine tourism in which it was also found that community's awareness in preserving environment as an external factor (Parmawati et al., 2017;Wu et al., 2020). It was also found that the current finding related to the awareness of participants in preserving marine environement as an external factor (Manna et al., 2020). It indicated that the internal and external factors were significant aspects in determining the prioritization strategies for developing dolphin watching tourism in sustainable manner.

5. CONCLUSION

The current study highlights that there are five criteria used in obtaining the prioritization strategies implemented in developing dolphin watching tourism sustainably. Those criteria are; human resource readiness, cost advantage, urgency, risk, and differentiation. It is found out that the prioritized strategies are; coaching and socializing, increasing local communities' awareness, empowering the management of rubbish and waste, diversificating and developing Another finding reveales that internal and external factors influencing the development itself. This study theoretically implicates an insight about the prioritization strategies and strengthened the existence of those strategies. Meanwhile practically, these findings can be used as the strategies in developing marine tourism in a sustainable manner. Further study is still suggested for providing a deeper insight to many parties in tourism particularly viewed from many different aspects.

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