CENTRALITY OF ENVIRONMENTAL COMMUNICATION BETWEEN TOURISM STAKEHOLDERS (CASE STUDY OF LEMBEH STRAIT, BITUNG CITY, NORTH SULAWESI)

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Abstract

This study was motivated by the impact of Covid 19 on tourism recovery in the Lembeh Strait, Bitung City. Various government efforts were carried out to encourage the recovery, but the inequality of vision in the delivery of environmental communication from a number of 17 stakeholders involved in the restoration of Lembeh Strait tourism, caused the message to be conveyed in rebuilding tourism in the Lembeh Strait for prospective tourists to be not conveyed effectively. Thus, this study is intended to understand the pattern of communication between stakeholders who are interested in rebuilding marine tourism in the Lembeh Strait, by compiling a pattern of coordination between stakeholders who are interested in rebuilding marine tourism in the Lembeh Strait. This research uses quantitative approaches and mixed methods. This study resulted in the finding that the Tourism Office is the most recognized (1 3 relationships), closest (ndegree 0.867), and most influential (ndegree 0.882) in the network. This study also produced a coordination structure to improve the integration of relationships between stakeholders.

Keywords: Lembeh Strait, environmental communications, stakeholders, UCINet.

1. BACKGROUND

Communication is the art of conveying a message (Lasswell, 1998), a process of transferring a message from the communicator to the receiver/communicant. However, in the process, there are elements, concepts, processes, and goals that must be understood in communicating. Newcomb said that every act of communication is seen as a transmission of information from the source to the recipient. Communication is used to convey a message that is set to achieve a goal, such as promoting a tourism attraction to potential tourists.

Tourism is a form of economic generation from an area that is attractive, providing benefits to society, government, and development. The Indonesian government has determined tourism to be one of the priority sectors for development and efforts to recover from the impact of the Covid 19 pandemic. Through tourism, the government encourages various tourist attracting activities, branding wonderful Indonesia, to strengthen the Tourism Awareness Movement in order to maintain order, security, cleanliness, coolness, and beauty that will support the re-development of tourism in Indonesia.

Various efforts of the Government in the Central and Regional Governments, conveyed through different and diverse forms of tourism communication. However, as Miller points out, communication does not always convey a message to the recipient with the desired result.

Sometimes communication is not the same from various parties, giving birth to different interpretations so that the desired tourism development goals are not achieved. Moreover, the field of tourism, involves so many different stakeholders, each of whom has its own interests, so there is no common vision for the form of communication to be conveyed.

Lembeh Strait is part of the Lembeh Island area, Bitung City, in North Sulawesi Province. Lembeh Strait does have a myriad of tourism potentials that are not inferior to other destinations (Ksmtour, 2022). Lembeh Strait is 16 km long with a width of about 1-2 km with a number of 88 diving spots rich in underwater beauty offerings that brought in 338,247 tourists in 2018. However, with the influence of the Covid-19 pandemic, the number of tourists visiting has become very low, and it affects the economic acceptance of the community and the region.

The Government's plan to revive tourism in the Lembeh Strait through various programs, it is hoped that it will restart tourism development, but the strategy of rebuilding Lembeh Strait tourism seems to be less successful, because there is no common vision of communication between stakeholders. In the Lembeh Strait area itself, there are a number of 16 different stakeholders, each of whom has their own interests in tourism in the Lembeh Strait, and this difference in interest's results in different communication patterns for its tourists. Thus, to be able to form a good environmental communication platform, a coordination must be built led by the most influential stakeholders in the Lembeh Strait tourism network.

2. RESEARCH METHODS

This study is intended to understand the pattern of communication between stakeholders interested in rebuilding marine tourism in the Lembeh Strait, by compiling a pattern of coordination between stakeholders who are interested in rebuilding marine tourism in the Lembeh Strait. These efforts are carried out by analyzing the role, interests and influence of each stakeholder, with qualitative and quantitative approaches, because this study is based on in-depth interviews with stakeholders, observations in the field, and analysis of primary and secondary data, so that researchers are not biased to test theories to compile the recommendations needed (Creswell, 2003). The study area of this study was conducted in the Lembeh Strait, Bitung City, and North Sulawesi Province.
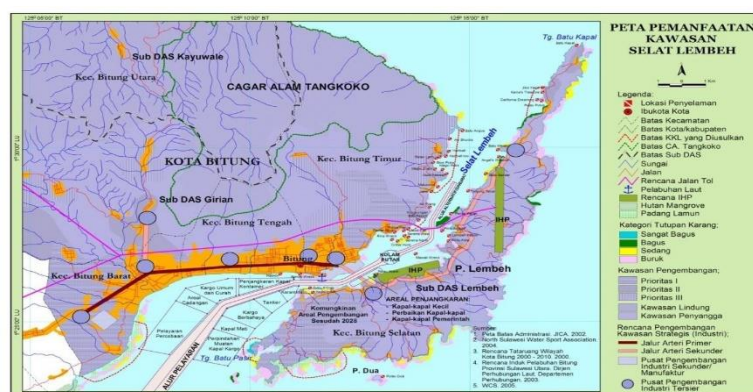

Figure 1. Map of Lembeh Strait

The analysis process in this study was carried out by conducting interviews with 16 stakeholders, then the interview results were processed using NetDraw software to obtain an overview of the relationship between existing stakeholders, and by using UCInet 64 Software, the interview results were also processed to obtain the value of closeness between stakeholders.

The 16 stakeholders who were the speakers of the in-depth interview were as follows.

Table 1. 16 Stakeholders involved in tourism development in the Lembeh Strait
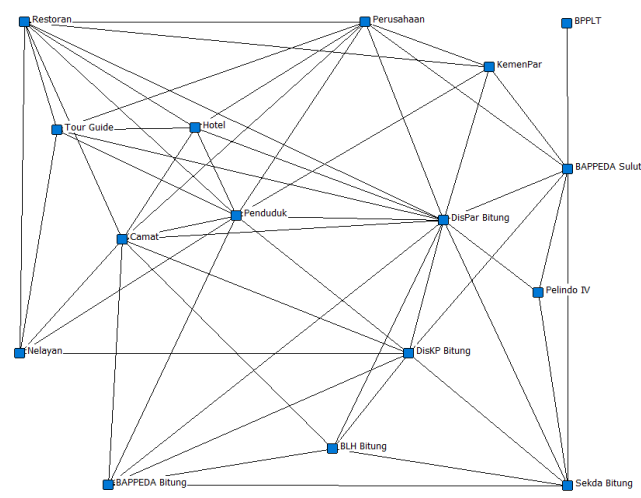
No	Stakeholders
1	Regional Secretary of Bitung City
2	BAPPEDA Bitung City
3	Bitung City Environment Agency
4	Head of Bitung City Tourism Office
5	Head of the Bitung City Fisheries Service
6	PT Pelabuhan Indonesia (Pelindo) IV Bitung Branch
7	Tourism Industry Company
8	Hotel Manager
9	Restaurant Manager
10	Tour Guide Manager
11	Fisherman
12	Residents of Manado City
13	Sub-district head of North Lembeh and South Lembeh sub-district
14	Ministry of Parekraf
15	BAPPEDA of North Sulawesi Province
16	BPPLT (Integrated Coastal and Marine Management Agency) North Sulawesi

Source: Analysis results, 2022.

3. RESULTS AND DISCUSSION

3.1. Environmental Communication

Tourism as part of economic business, hinted Hasan (2015) prioritizes human resources who have the right hospitality and skills. Yoeti (1992) has long reminded that tourism is intertwined and interacts between tourists, businesses, as well as the government and the host community in providing the best service. In the context of the region, tourism affects so many different stakeholders, with their own interests. Dby using NetDraw software to see how exactly the pattern of interconnected relationships between stakeholders in the Lembeh Strait tourism development network. The NetDraw visualization results of the relationship pattern are as follows.

Figure 2. Visualization of Network Metrics relationships between 16 Lembeh Strait Tourism Stakeholders

The results of data visualization of environmental communication network interactions in the Lembeh Strait using NetDraw software, resulted in a sociogram visualization with points in Figure 2 representing stakeholders (nodes) connected by a line (vertex) that connects with other stakeholders. The more lines that connect a stakeholder, the more the number of interactions that occur. In Figure 2, the relationship between stakeholders is still fragmented, and has not yet focused, which indicates that the interaction patterns between environmental communication stakeholders in the Lembeh Strait have not been fully connected and caused the flow of communication to be uneventful and important information not conveyed to tourists. The results of Network Metrics Visualization using Netdraw Software, show that the relationship between stakeholders has not been centralized, which means that there is no central actor in the communication pattern of Lembeh Strait tourism, this can cause no clear information, and confuse tourists. The parties that are seen to have the most central position (in the middle) are the Tourism Office, and also the Population. The Tourism Office should be encouraged to be the leader of communication patterns and the community as an agent in the field.

3.2. Inter-stakeholder Centrality

16 stakeholders in the environmental communication network in the Lembeh Strait, basically many are interconnected, but are not aware of it, nor know the relationship of its influence. Therefore, using UCINet software tools, a centrality analysis is delivered that measures relationships between stakeholders based on degree centrality, closeness centrality, betweeness centrality, and eigenvector centrality. The data used to populate UCINet and NetDraw is the result of in-depth interviews with all stakeholders, which are filled into Table 2 which shows the existence of relationships between stakeholders as follows.

Table 2: Inter-stakeholder Relations

id	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0
2	1	0	1	1	1	0	0	0	0	0	0	1	1	0	0	0
3	1	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0
4	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0
5	1	1	1	1	0	0	0	0	0	0	1	1	1	0	1	0
6	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7	0	0	0	1	0	0	0	1	1	1	0	1	1	1	1	0
8	0	0	0	1	0	0	1	0	1	1	0	1	1	0	0	0
9	0	0	0	1	0	0	1	1	0	1	1	1	1	1	0	0
10	0	0	0	1	0	0	1	1	1	0	1	1	0	0	0	0
11	0	0	0	0	1	0	0	0	1	1	0	1	1	0	0	0
12	0	1	0	1	1	0	1	1	1	1	1	0	1	1	0	0
13	0	1	1	1	1	0	1	1	1	0	1	1	0	0	0	0
14	0	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0
15	1	0	0	1	1	1	1	0	0	0	0	0	0	1	0	1
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

The results of the Actor Network Theory analysis based on the UCINet Software process are processed as follows.

Table 3. Inter-stakeholder Relations

No	Actor	Relationship	Number of Relationships	Closeness	Intercession	Influence
1	Sekda Bitung	6.000	0.400	0.625	5.619	0.180
2	BAPPEDA Bitung	6.000	0.400	0.600	1.667	0.224
3	BLH Bitung	5.000	0.333	0.577	0.500	0.184
4	DisPar Bitung	13.000	0.867	0.882	51.929	0.406
5	DisKP Bitung	8.000	0.533	0.682	11.590	0.269
6	Pelindo IV	3.000	0.200	0.536	0	0.102
7	Company	8.000	0.533	0.682	9.500	0.295
8	Hotel	6.000	0.400	0.600	0.333	0.249
9	Restaurant	8.000	0.533	0.652	4.519	0.295
10	Tour Guide	6.000	0.400	0.600	1.686	0.234
11	Fisherman	5.000	0.333	0.556	1.500	0.193
12	Inhabitant	10.000	0.667	0.714	12.186	0.352
13	Sub-districts	9.000	0.600	0.682	10.519	0.323
14	Ministry of Tourism	5.000	0.333	0.600	2.333	0.202
15	BAPPEDA Sulut	7.000	0.467	0.652	34.119	0.194
16	BPPLT	1.000	0.067	0.405	0	0.025

The results of data processing with UCINet software, produce the following results:

1) Centrality of Levels

Level centrality is an analysis that shows the popularity of stakeholders in communication networks. In the environmental communication network in the Lembeh Strait, the stakeholder

with the highest centrality is the Tourism Office with 13 relationships, and a degree value of 0.867.

2) Proximity Centrality

Proximity centrality is an analysis that describes how close stakeholders are to other stakeholders within the network. Proximity is measured by how many steps a stakeholder can contact or be contacted by other stakeholders in the network. The lower the proximity value, the better it will be because it shows a close distance for each stakeholder to relate to that stakeholder. The stakeholders with the best level of proximity are the Tourism Department, most of which only require 1 step to contact and be contacted by most other stakeholders, a value of 0.882.

3) Centrality of intercession

Centrality is centrality that shows the position of stakeholders as intermediaries of one stakeholder relationship with another in the network. The results of the analysis in Table 4 show that the largest centrality value of linkage for communication networks is the Tourism Office with a value of 51,929, while the Community (12,186) is the second largest position.

4) Eigenvector centrality

Eigenvector centrality is a centrality analysis that can see how important a stakeholder's position is in a network. The value of how important this is is described as how much of a network that stakeholder has with other stakeholders. The stakeholder that has the highest eigenvector centrality value is the Tourism Office with a value of 0.406. The highest eigenvector value indicates that the Tourism Office is the most influential stakeholder in the environmental communication network in the Lembeh Strait.

3.3. Ideal Environmental Communication Structure

Lembeh Strait tourism is currently trying to recover, one of which is as a result of the incompatibility of relations between stakeholder stakeholders in the environmental communication network in the Lembeh Strait. The solution proposed through this study is to restructure the relationship between stakeholders in the environmental communication network in the Lembeh Strait which has proven to be less integrated. The restructuring is proposed in the form of a coordination structure between stakeholders as illustrated in the following figure.
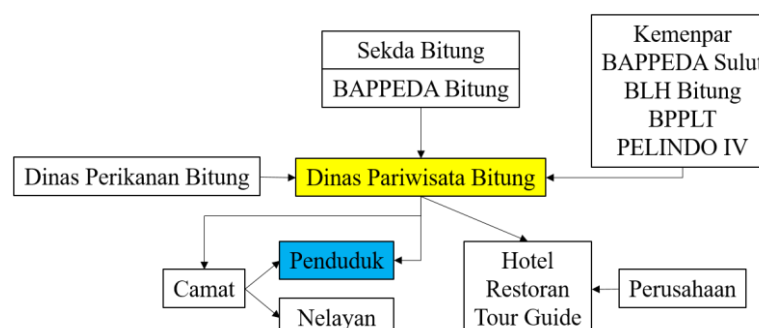
Figure 3: Proposed Inter-stakeholder Coordination Structure

4. CONCLUSION

This study resulted in the conclusion that poor communication can be corrected by observing the visualization of relationships between stakeholders, with the Tourism and Population Office must be arranged to have a central position in the relationship. And the Department of Tourism and Population is the best-known, closest, and most influential stakeholder, according to the UCINet Software results.

This study has limitations so that it can be refined through more detailed studies in terms of influence between two stakeholders who have the same role but different amounts of influence, such as hotel, restaurant, and tour guide managers, have almost the same role, but basically, the influence is different.

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