Netnography and Social Network Analysis: Centrality Actors Reopening Indonesia's Tourism Industry in a Transitional Era

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ABSTRACT

The Covid-19 disease that the World Health Organization (WHO) stated as a pandemic on March 11, 2020 impacts negatively on the tourism industry. It causes the foreign exchange earnings from the tourism sector to decline, and it is the duty of the Ministry of Tourism and Creative Economy to resolve this problem . The implementation of physical distancing as a solution to minimize the spread of the Covid-19 disease has changed society to do more activities online which speeds up the development of digital culture. The researchers examine the structure of relationships between social entities on Twitter regarding the planning of reopening Indonesian tourism. The data collection is conducted from 19 to 23 June 2020, in the transition era. The subject is the official Twitter account of The Ministry of Tourism and Creative Economy, @kamenparekraf. The netnography method was applied to understand social relations in social networks and analyze the structure and patterns of the relations between community members called actors (nodes) and the relations between members called ties. The results showed that the network formed 5 large clusters that were the clusters of @kamenparekraf, @jokowi, @susipudjiastuti, @wishnutama, and @zenicman. The high level of communication intensity on the planning of reopening tourism during the Covid-19 pandemic indicated that the communication network used Twitter as the favorite social media and formed a digital culture in content using #SobatParekraf so that every actor involved indirectly made social relations and became a member of the Twitter social media community.

Keywords: *Communication networks, Covid-19 disaster, digital culture, netnography, tourism industry.*

INTRODUCTION

The World Health Organization (WHO) stated that the Covid-19 disease was a pandemic on March 11, 2020, because the number of Covid-19 cases is increasing and spreading more widely (WHO, 2020). In Indonesia, this situation impacts negatively on the tourism sector which incurs huge losses of about USD 1.5 billion or Rp. 21 trillion. This information was conveyed by the general chairperson of the Indonesian Hotel and Restaurant Association and the general chairperson of the Indonesian Employers Association (Intan, 2020).

The Ministry of Tourism and Creative Economy, which has the duty of organizing governmental affairs in the tourism sector, has a tough job during this Covid-19 pandemic. The Ministry of Tourism and Creative Economy has to take action and mitigate the negative impact of the Covid-19 pandemic in the tourism sector. The number of foreign tourist visits decreased because of this pandemic, and the data are presented in the graph below.

Graph 1: Decreasing number of foreign tourist visits in Indonesia
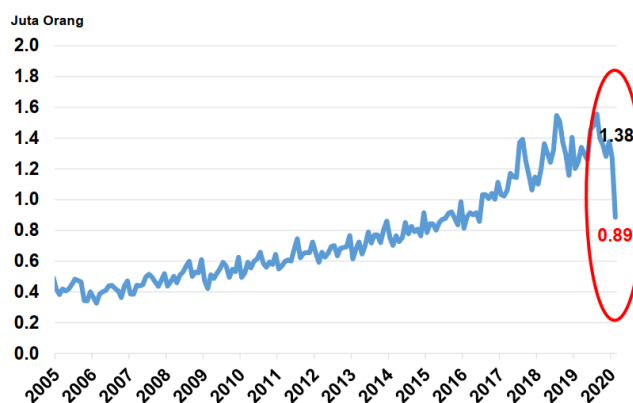
Source: CEIC, stated in Revindo, Sabrina & Sowwam (2020, April).

Based on the Graph 1, the number of foreign tourist visits usually decreases in February by around 200.000 people from the number of foreign tourist visits in December of the previous year. However, in February 2020 the foreign tourist visits decreased to 500.000 people from December 2019. This number of foreign tourist visits was 29% smaller compared to the number of foreign tourist visits in February 2019.

Economic sectors related to the tourism industry that may be affected by the Covid-19 pandemic are processing business (as a result of the disruption of the global supply chain), transportation business (as a result of travel restrictions), accommodation and food drink business (as a result of travel restrictions), wholesale and retail business (as a result of physical distancing regulation) (Revindo & Alta, 2020).

The physical distancing regulation that aims to prevent the spread of the Covid-19 disease forces people to do more activities online, especially spending time on social media. Based on the latest report from We Are Social, in 2020 there were 175.4 million internet users in Indonesia and it was 17% or 25 million more than the number of internet users in the previous year. Compared to the total population of Indonesia that is 272.1 million people, this means that 64% of Indonesian people have access to the Internet. Indonesia is ranked third for the country with the most internet users in Asia. There are 19.5 million Twitter users in Indonesia.

Twitter was used by the Ministry of Tourism and Creative Economy during the Covid-19 pandemic to communicate with the stakeholders and society. The Twitter account of the Ministry of Tourism and Creative Economy, @kemenparekraf, is an effective and very accessible way to provide information to the society during the Covid-19 pandemic, which has now entered the new normal transition era. The National Agency for Disaster Management which has a role in formulating policies pertaining to Covid-19 disaster management, also makes use of Twitter as communication media to post content as a reference for society in facing the pandemic (Fitriyah & Fatoni, 2020).

The Twitter account is used as media to communicate the latest news about tourism during the Covid-19 pandemic. Figure 1 below shows the official Twitter account of the Ministry of Tourism and Creative Economy, @kemenparekraf. This account was established in June 2015. Now, it follows 382 accounts, is followed by 138,000 followers, and has posted

40.6K tweets. This account is quite active in communicating the development of Indonesian tourism.

Figure 1: The official Twitter account of the Ministry of Tourism and Creative Economy

The Ministry of Tourism and Creative Economy shares information on Twitter in the form of text, images, and videos and uses the hashtag, #SobatParekraf which refers to the followers of the account. Other hashtags are also used by the account. The use of hashtags is very useful to group some tweets so that the followers can search for all tweets with the same topic (Twitter Help Center, n.d.), especially tweets about the plan of reopening tourist attractions in the Covid-19 pandemic period. Sari (2018) revealed that social media is a media specifically designed to facilitate the ease of interactive or two-way social interactions. In addition, the advantages of interactive social media are to obtain information, as well as to disseminate information (Banjaransari, 2018). Therefore, social media can be seen as a medium or online facilitator that strengthens relationships between users and creates social bonds. There are 3 main social media platforms according to Kotler and Keller (2016), namely online communities and forums, blogs, and social networks (Asih, Teofilus, Sutrisno & Yoana, 2020). Social media is an interactive digital medium that allows users to produce, manipulate, or influence others who use the same media. From a public relations' perspective, social media is widely utilised as a digital tool and application that facilitates interactive communication and content exchange between the public and organizations (Fitriyah, Fatoni & Nasher, 2021).

According to Benckendorff, Xiang and Sheldon (2019), information technology (IT) plays a significant, global and dramatic role in a highly information-intensive industry, like the tourism industry. The main emphasis in this regard is on the Internet, particularly social media (Gretzel, 2018). Ljiljana and Jurica's (2019) identification of three domains of social media influence that merit consideration regarding tourism are: 1) ICT tools that rely on information technology and the digital marketing strategies of individual firms; 2) channels that allow peer-to-peer communication, based on content creation, collaboration and exchanges of

content between companies; and 3) the construction of virtual communities, which affects people's behavior (Kwak, Ma, Polites, Srite, Hightower & Haseman, 2019).

Cornelissen (2020) stated that the Internet is an option for organizations to communicate quickly with their stakeholders in crises. He also said that the development of the Internet has a significant influence on corporate communication. The speed and simplicity of information exchange not only makes it easier for organizations to communicate with their stakeholders but also changes the expectations of stakeholders. Time is an important element in crisis communication and stakeholders now have greater expectations of rapid distribution of information about crisis events (Fitriyah, Fatoni & Nasher, 2020).

This study describes the communication of the tourism crisis in the transition era on Twitter through netnographic research. Netnographic research is a technology-based online observational research to investigate communication behavior in social media. By conducting netnography research, researchers investigate the communication culture of virtual communities so that the researchers find the communication styles, the communication patterns, and the communication models (Heinonen & Medberg, 2018). Social network analysis can support netnographic research because it can map communication networks at the system level and the actor level (Nurrokhman, Purnomo & Hartomo, 2020). Robert V. Kozinets (2015) in his book entitled *Netnography: Doing Ethnographic Research Online* explains that the locus of netnographic research is collective, not individual, analyzing groups of people whose level of analysis is "meso", not micro or macro. Netnography research investigates individual interactions that occur via the Internet or computer.

Hicksa, Cavanaghb and VanScoy (2020) states that Social Network Analysis (SNA) is a research method for a systems approach that visualizes invisible flow in the network by identifying the types of interactions, correlations, and roles among users in the network. There is so much news about Indonesia tourism on Twitter during the new normal transition era especially about the crisis in the tourism sector. Therefore, the researchers in this study attempt to answer this question about how the Ministry of Tourism and Creative Economy and the Tourism and Creative Economy Agency communicates the plan of reopening tourist attractions to restore the tourists' trust and the public responses on Twitter regarding the matter.

LITERATURE REVIEW

Indonesia Tourism Industry

Tourism as a new industry is known in Indonesia after the Presidential Instruction No. 9 of 1969, in chapter 2 article 3 which states that "Tourism businesses in Indonesia are a development of the tourism industry and are part of the development and establishment businesses as well as the welfare of society and the State" (https://ngada.org/ip9-1969.htm). With the Presidential Instruction, the term tourism industry becomes increasingly popular in society. It is in line with the regulation of the Minister of Tourism and Creative Economy of the Republic of Indonesia number 12 of 2020 concerning the strategic plan of the Ministry of Tourism and Creative Economy for 2020-2024 which is the article states that "To increase the tourism and creative economy contributions towards the national economic resilience and to optimize the implementation of the government duties in the field of tourism and creative

economy, it is necessary to formulate a strategic plan in the Ministry of Tourism and Creative Economy and the Tourism and Creative Economy Agency" (jdih.kemenparekraf.go.id).

The Role of the Tourism Industry in National Development
The Law of the Republic of Indonesia Number 10 of 2009 concerning tourism states that tourism is any tourism activity and is supported by various facilities and services provided by society, businessmen, government, and local governments. The role of the tourism industry in national development conveyed in the learning management system (LMS) of SPADA by the Ministry of Education and Culture is divided based on the perspectives of economic, social, and cultural.

First, from the economic perspective, tourism industry contributes to the national development by 1) increasing the income of the society in the tourist destinations through the expenses spent by tourists; 2) increasing the foreign exchange earnings and improving the balance of payments; 3) Increasing regional and national income through taxes from companies related to tourism, customs, and fees; 4) increasing the activities of domestic investment and foreign investment directly to build tourism facilities; and 5) stimulating the growth of other economic sectors such as livestock industry, plantations industry, handicraft industry, etc.

Second, from the social perspective, tourism industry contributes to the national development in 1) creating jobs and decreasing unemployment; 2) improving the society standard of living and social welfare; 3) expanding insights on the values of life that are brought by tourists, and 4) creating tolerance when interacting with tourists and strengthening the local tradition.

Third, from the cultural perspective, tourism industry contributes to the national development by 1) stimulating public attention to increasing education, knowledge, intelligence, and the values of the local culture; 2) introducing the local culture to foreign tourists; and 3) encouraging the development and preservation of cultural values through the activity of reviving traditional cultural arts.

Tourism Communication
Holloway and Humphreys (2020) stated that tourism is the whole relationship and phenomena that occur due to the visit of foreigners whose intention is not to stay permanently or to work. In the early 20th century, going on an excursion was an activity that was only enjoyed by rich people, but now it has become part of human rights (Wahyudi, 2020). This happens not only in developed countries but also in developing countries. Indonesia, a developing country, is trying to build a tourism industry as a way to increase foreign trade earnings (Wahyu, 2020).

Harold Lasswell in Jefkins (2005) states that communication is the process of delivering messages by communicators to receivers through media which produce certain effects. Lasswell also states that the most appropriate way to describe communication activities is to answer the questions of who says what, in which channel, to whom, and with what effect.

According to Xiang (2018), tourism communication has several main areas of study that can be developed as interesting fields of study. These fields will continue to develop in the future in line with the development of the complexity of studies in tourism

communication. The fields are a) tourism marketing communication; b) destination branding; c) tourism communication management; d) tourism transport communication; e) tourism visual communication; f) tourism group communication; g) tourism online communication; h) public relations and MICE (Meeting , Incentive, Conference, Exhibition).

The Social Media, Twitter, in Tourism
Social media allows relationships to form between users from distinct backgrounds, resulting in a tenacious social structure. A prominent output of this structure is the generation of massive amounts of information, offering users exceptional service value proposition (Kapoor, Tamilmani, Rana, Patil, Dwivedi & Nerur, 2018). Typically, social media enables the users to share content and establish web communities or internet forums (Liberatore, Bowkett, MacLeod, Spurr & Longnecker, 2018). There are at least five main features of social media: (1) social network and social interaction, (2) participation, (3) the use of different providers (e.g. search engines, blog spaces, etc.), (4) openness, and (5) collaboration (between users and user groups) (Fitriyah, Fatoni & Nasher, 2020).

The use of the Internet and other information communication technologies gives an impact on the tourism economy (Sukirno & Irfan, 2019). Social media, a powerful online networking tool, have been integrated into social and economic life. It gives people a new way to connect socially by integrating information and communication technology (such as mobile and web-based technologies), social interaction, and the construction of words, pictures, videos, and audio. It is more than a new way to communicate, but it refers to an entirely online environment built on people's contributions and interactions (Huda, 2019).

According to Feeney and Porumbescu (2020), social media is interactive digital media that enables users to produce content, manipulate, or influence other people who use the same media. From the public relations perspective, Cornelissen (2020) operationalises social media broadly as digital tools and applications that facilitate interactive communication and content exchange between the public and organizations. The rise of social media has changed the view of crisis communication in at least two important ways. First, social media can be the source of organizational crises, such as campaigns or poorly designed social media messages that damage the reputation of an organization. Second, social media have become the main vehicle for spreading rumors, sharing negative opinions, and aggregating negative emotions to an organization (Reuter & Kaufhold, 2018). Social media plays an important role in many aspects of tourism, especially in searching for information, decision-making behaviors, and tourism promotion (Azazi & Shaed, 2020). Many countries use social media as an important tool to promote their tourism industry.

Social Network Analysis
Knoke and Yang (2019) define Social Network Analysis (SNA) as the study of human relationships using graph theory. Research on networks investigates the relations between actors like the relations that occur when people exchange information about a topic. There are 3 important characteristics of network research that are paying attention to relations not attributes, focusing on networks, not groups, requiring a certain relational context so that the relations become meaningful (Tabassum, Pereira, Fernandes & Gama, 2018). Brandão, Costa and Buhalis (2018) state that a network has actors in important positions that provide

advantages and disadvantages. When analyzing a network, a researcher will see the relationship or link that comes from communication between individuals or groups. Social Network Analysis (SNA) has several levels of analysis that are the actor level, group level, and system level. Actor level analysis of a complete network uses a centrality measure. The four types of centrality are the centrality of degree, closeness, betweenness, and eigenvector. In system-level analysis, there are five measures: the density, reciprocity, diameter and distance, and centrality (Knoke & Yang, 2019).

METHODOLOGY

The data collection period in this study was from 19 to 23 June 2020, in which Indonesia had entered the new normal transition era, and several tourist destinations had been opened. A post-positivist approach was used in this study because the communication network analysis study required quantitative and qualitative data (Leung, Kumlien, Bish, Carlson, Chan, & Chan, 2021). In social science research, Netnography has become a widely accepted research method. According to Musabirov and Bulygin (2020) social science is witnessing the tremendous growth of data available on the Internet on social phenomena to manage the challenges and opportunities of analyzing online data. One area where this growth is particularly important is in the study of online communities. Netnography research originates in ethnography adapted for the social world mediated by computer devices (Kozinets & Gambetti, 2020). Netnography research is defined as a qualitative research methodology that adapts ethnographic research methodology to study culture and community that occur in computer-mediated communications (Kozinets & Gambetti, 2020).

METHODOLOGY

This research aims to understand social relations between actors that become members of a social media community . The essence of netnography research is the study of the behavioral relationship between networked individuals to form a community mediated by the Internet and computer devices and the like, and also all the community activities which are carried out through digital technology so that it forms a coherent and interconnected social network culture between individuals or what is called internet culture or media culture (Kozinet, 2019). Social network research analyzes the structure and patterns of relations between community members called actors (nodes) and relations between members called ties (Kozinets, 2019). Actors can consist of people, teams, organisations, cities, or concepts. For the actor level analysis, the measures used are the centrality of degree, closeness, betweenness, and eigenvector. On the other hand, for the level system analysis, the measures used are the number of clusters, diameter, density, reciprocity, centralisation, and modularity.

The study is a descriptive study using Twitter data which is known to be one of the most useful resources for big data analysis This study monitors the flow of data consisting of 1000 datasets on the Indonesia's Ministry of Tourism and Creative Economy's Twitter account. The analysis and crawling process was made by utilising Netlytic.org and Gephi software. Netlytic and Gephi can automatically create network chains based on Twitter account's names and generate data that can be used to analyze at the system and actor level.

RESULTS AND DISCUSSION

Structure of Network Communication

Network structure involves actors and the relations among all actors in the network. 716 actors were identified in this study. These actors were actively involved in the process of exchanging information about Indonesian tourism during the new normal transition era. Figure 2 shows the network pattern formed in the communication of the cultural network.
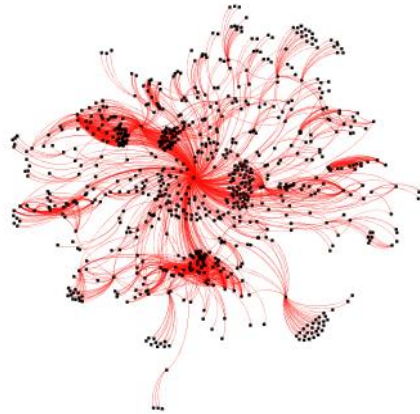

Figure 2: Network visualization of the Twitter account @kemenparekraf

Cluster

Clusters are virtual social groups that are connected and establish communication between members in the same cluster or members in other clusters. Netlytic clustered this network into 5 large clusters and several small clusters. Each cluster has a different color.

Cluster 1 @Kemenparekraf

Cluster 2 @jokowi

Cluster 3 @susipudjiastuti

Cluster 4 @wishnutama
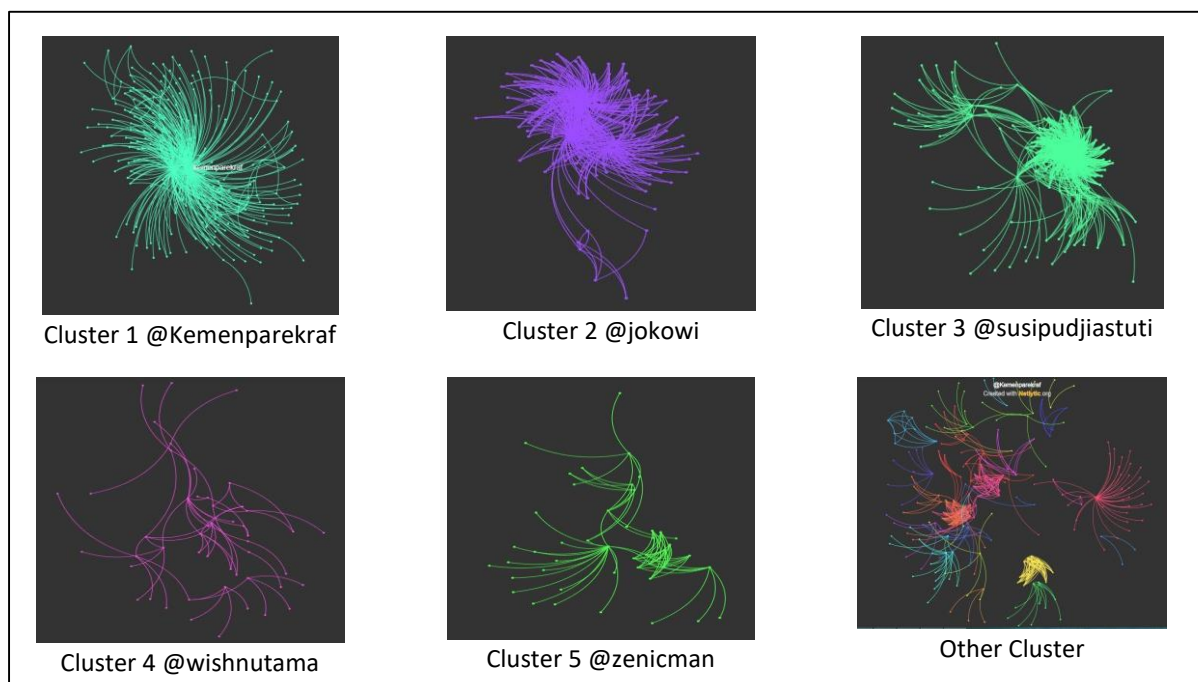
Cluster 5 @zenicman

Other Cluster

Figure 3: Cluster Visualization of the network of the Twitter account (@kemenparekraf)

Table 1 contains information about the network properties of the crisis communication network at the Twitter account @kemenparekraf that consist of the diameter, density, reciprocity, centralization, modularity.

Tabel 1: Network properties by Netlytic.org

Network Properties	
Diameter	11
Density	0.003970
Reciprocity	0.052150
Centralization	0.323400
Modularity	0.686900

The diameter was scored 11. It means that the furthest distance needed by an actor to get to another actor was as far as 11 steps in the process of information distribution.

The density of the communication network formed by 811 actors was scored 0.003970. Density describes how well the actors interact (Knoke & Yang, 2019). The low density indicates that the relations between all actors in the network are not going well. The bad relations occurred because the intensity of communication is very low which shows that the flow of information in this network is very slow. Perfect network density (value = 1) occurs when all actors in the network can establish communication and make contacts (Knoke & Yang, 2019). Intensive interactions were only carried out by a few people/accounts. It can be concluded that the network in the @Kemenparekraf account was relatively tenuous and not tight.

The reciprocity described the level of mutuality of communication between actors in the communication network of the Twitter account @kemenparekraf. A value of 0 on the reciprocity of this network indicated that the communication relations that occurred were only one-way, and two-way communication did not occur because major actors or government accounts did not reply to messages from public accounts addressed to them. This is the same as the Twitter account @infoBMKG which is only used for media information about weather, climate, and earthquakes (Fatoni, 2019).

Centralization in this network was low (0.323400) which means that the information in the Indonesian tourism network was not dominated by one actor. Actors in this network provided information to other actors in the network. In a social network that exists on Twitter, many were involved in the conversation. The people involved in this conversation had a very different diversity. This can be seen from the value of modularity (0.686900) which was smaller than 0.5. Actors in a network can be individuals, organizations, countries, and so on.

Centrality: Who Is The Most Important In The Network?
In the communication process that occurred during the new normal transition era, one of the most important things is to identify the main actor in the network which determines the types of information shared. To find out, four aspects are measured: the popularity of the actors (degree), connecting actors with other actors (betweenness), and closeness between actors in the Indonesian tourism network in the new normal transition era.

The analysis of the amount of degree centrality showed that in the Indonesian tourism network the most prominent and important actor is the Ministry of Tourism and Creative Economy, and other less important actors were the President of Indonesia (@Jokowi), the

former Minister of Marine Affairs and Fisheries (@susipudjiastuti), the Youth, Sports, and Tourism Department of the province of Central Java (@disporaparjtg), and the Governor of Central Java Province (@ganjarpranowo).

Tabel 2: Degree Statistic by Gephi

Actor	In-degree	Out-degree	Degree
kemenparekraf	527	4	531
jokowi	144	0	144
susipudjiastuti	98	2	100
disporaparjtg	64	18	82
ganjarpranowo	64	10	74

Referring to Table 2, the most popular actor is an actor that is most contacted with (Indegree). The most popular actor is the official account of the Ministry of Tourism and Creative Economy (@kemenparekraf). This account had 527 relations. The actor that was most active in contacting other actors (Outdegree) was the account of the Youth, Sports, and Tourism Department of the province of Central Java (@disporaparjtg). This account was active in the distribution of information related to the Indonesian tourism industry with 18 responses. In the context of crisis communication in the Indonesian tourism network in the new normal transition era, this aspect was related to the responsibility of actors in distributing information that was the Ministry of Tourism and Creative Economy and the society who needed information about the plan of reopening Indonesia tourism.

The betweenness centrality showed the position of an actor as an intermediary for the relation of an actor to another actor in the network (Knoke & Yang, 2019). The greater an actor's value of betweenness, the greater the actor's control of the information it has. Table 3 shows information about the betweenness centrality.

Tabel 3: Betweenness Centrality by Gephi

Actor	Betweenness Centrality
genpi_id	60.25
masbedjo2gmail1	54.0
bamsbulaksumur	38.0
g_hanafiah	21.0
silentreadeer	19.0

An actor in this position plays a role in relating an actor with another actor (Knoke & Yang, 2019). The actors are usually different from actors who have high popularity (degree). The account of Generasi Pesona Indonesia (@genpi_id) was an intermediary actor in the Indonesian tourism network. It scored 60.25. The other accounts, @masbedjo2gmail1, @bamsbulaksumur, @g_hanafiah, @silentreadeer, scored 54.0, 38.0, 21.0, and 19.0 respectively. The account, @genpi_id, became the strongest intermediary actor in the network of the Ministry of Tourism and Creative Economy, in the new normal transition era.

An actor's closeness to another actor in a network can be seen from the value of Closeness Centrality. Closeness Centrality counts as the shortest average path from one actor to every other actor in the network. The closer to number 1, the better the value of closeness

centrality. Table 4 shows the values of closeness centrality.

Tabel 4: Closeness Centrality by Gephi

Closeness Centrality Value	The Number of Actor
1.0	36
0.9 – 0.8	21
0.7 – 0.6	349
0.5 – 0.4	156
0.0	249

The results of this statistical data showed that the Indonesia Tourism network was represented by 36 actors who had the freedom to contact other actors in their network with a value of 1.

Moreover, the eigenvector centrality is a measure of the influence of an actor in a network. It describes how many networks are owned by people/organizations/institutions that have relations with the actor. In contrast to degree centrality, eigenvector measures how important or how popular an actor that networks with other actors actor (Knoke & Yang, 2019). The higher the value of eigenvector centrality (close to 1), the more important the actor is.

Table 5: Eigenvector Centrality by Gephi

Label	Eigenvector Centrality
kemenparekraf	1.0
jokowi	0.2162649118833339
kemenkesri	0.20792112973028276
susipudjiastuti	0.16939374475536909
disporaparjtg	0.15628878497727072
pesonaid_travel	0.14915005417392108

In a social network, knowing the most important or valuable actor can be seen by looking at the eigenvector value. Table 5 shows that the account of @kemenparekraf is the most important actor in this network. Besides this, other important actors include the account of @jokowi, @kemenesri, @susipudjiastuti, @disporaparjtg, @charmid_travel.

It should be noted that in addition to the main role of the Ministry of Tourism and Creative Economy in promoting tourist destinations, in the conditions of the Covid-19 pandemic, there is a need to continue collaborating with the Ministry of Health of the Republic of Indonesia to disseminate information related to Health protocol against Covid-19 through the Twitter social media platform. It can be seen that the Ministry conducts surveillance for new potential covid-19 cases. In addition, the statistical results on Gephi indicate that the communication network consists of account collaborations that have a large influence. The existence of several government accounts that have important actors in the discourse on opening tourism in the midst of the COVID-19 pandemic ensures that the public can obtain accurate information. The account of the Ministry of Tourism and Creative Economy directly affects the network as a reliable medium of information, which will be referenced by the community at a time of crisis in this pandemic.

Netnography within the Tourism Industry in the Transition Era

Kozinets and Gambetti (2020) views virtual communities as the same as real communities. A community is a group of individuals that has various social interactions, social ties, and a certain form of interaction, location, or space, which in this context is computer-mediated or virtual space. The implementation of physical distancing reinforces the concept that in the digital era people believe more of what the community says on the internet than the reality around them (Gani, Fitriana, Sila, Fitriani & Yuliarti, 2020). Issues regarding the plan of reopening tourism in the new normal transition era have become the focus or reference in forming a large network of the Ministry of Tourism and Creative Economy.

The real difference lies in the presence of the internet, which causes the communication situation to be more open, free, progressive, and even subversive. Computers have a central position that is directly involved in communication events so that the people involved are defined as users or actors in the concept of social network analysis. Netnographic analysis on the Indonesian tourism industry on Twitter in the new normal transition era is interesting. Furthermore, Kozinets (2019) analyzes the ties of online community members that include various things such as sharing images, sharing blog links, exchanging stories, providing criticism, etc. These ties can also be categorised in terms of "Strong" and "Weak". Strong ties include intimacy, self-disclosure, or mutual service (Yuan & Lee, 2021). On the other hand, weak ties are more sporadic and irregular and also have a less emotional connection. In the end, these "weak" and "strong" categories vary widely depending on the context.

Using Social Network Analysis in this study of netnography, the researchers have a better understanding of how a social network is realized through computer network connectivity. The researchers investigated the position of the Ministry of Tourism and Creative Economy in the network to analyze the overall network structure and the actors in the network who had influence based on the number of connections they had. Furthermore, structural analysis on information about communication patterns and information flow patterns in networks or virtual groups that were densely connected in the period 19-23 June 2020, forms 5 large clusters (@kemenparekraf, @jokowi, @susipudjiastusi, @wishnutama, @zenicman) based from 1000 datasets were collected from the Ministry of Tourism and Creative Economy account.

Elements such as tourists, service-oriented organizations, tourism resources, destinations, and public institutions have a role to play in tourism activities. Understanding the world of tourism, the researchers examined the bonds between these elements. Social Network Analysis (SNA) provided tourism research with a series of methods and tools to understand the patterns and structures of the Tourism Industry network ties in the new normal transition era. The researchers determined how Social Network Analysis (SNA) was in tourism to describe its main elements and to investigate its potential in the development of Indonesian tourism research in facing the new normal transition era.

Virtual tour or virtual roaming has become a familiar term as the world enters a "new normal" phase in the new normal transition era. This concept is an alternative vacation for the digital community which temporarily cannot take a vacation. On the other hand, this moment is strategic for the promotion of tourism destinations using virtual communities that have the same interests and come from various places around the world.

CONCLUSION

The researchers found new ways of communication in society with the development of the Internet. Various social interactions, social ties, and certain interaction formats, locations, or spaces in this context are called computer-mediated or virtual spaces. Issues regarding the plan of reopening tourism in the new normal transition era have become the focus or reference in forming a large network on the Indonesian Ministry of Tourism and Creative Economy.

The researchers conduct the SNA (Social Network Analysis) in the context of tourism to find the netnographic concept which describes the relationship between actors. Twitter users share information and comment on the account of the Ministry of Tourism and Creative Economy, especially regarding the plan of reopening several tourist destinations in the new normal transition era. This study finds the furthest distance between actors to connect and to create a communication network is as far as 11 steps. Popular actors are needed as agents of change for the promotion of the tourism industry because Social Network Analysis (SNA) does not stop at content and discourse analysis. It is necessary to broaden the discussion on the plan of reopening Indonesian tourism in the new normal transition era.

The high level of communication intensity about the plan of reopening tourism during this pandemic shows that the communication network positions Twitter as a favorite social interaction place and forms a digital culture in content using the hashtag #SobatParekraf. As a result, in the context of social networks, connectivity can be seen from the level of the overall network structure at the actor level, with a measure of degree, between, and closeness. Every actor involved indirectly makes social relations and becomes a member of the Twitter social media community.

The Twitter social media community is a clear indication of how digital tourism can be further developed, especially in facing the Covid-19 impact on Indonesia's tourism industry.

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REFERENCES

Asih, D., Teofilus, Sutrisno, T. F. C. W., & Yoana, C. (2020). The effectiveness of social media based on photo and video sharing towards online purchase intention. *Jurnal Siasat Bisnis, 24*(2), 179–186. https://journal.uii.ac.id/JSB/article/view/15351

Azazi, N. A. N., & Shaed M. M. (2020). Social media and decision-making process among tourist: A systematic review. *Jurnal Komunikasi: Malaysian Journal of Communication, 36*(4), 395-409. https://doi.org/10.17576/JKMJC-2020-3604-24

Banjaransari, Y. G. (2018). *Pemanfataan Instagram sebagai media komunikasi pemasaran online page down cloth maker* [Skripsi thesis, Universitas Muhammadiyah Surakarta]. UMS ETD-db. http://eprints.ums.ac.id/61512/

Becker, E. (2020). How hard will the coronavirus hit the travel industry? *National Geography*. https://www.nationalgeographic.com/travel/2020/04/how-coronavirus-is-impacting-the-travel-industry/

Benckendorff, P. J., Xiang, Z., & Sheldon, P. J. (2019). *Tourism information technology* (3rd ed.). CABI. https://www.cabi.org/products-and-services/about-cabi-books/open-resources/tourism-information-technology-3rd-edition/

Brandão, F., Costa, C., & Buhalis, D. (2018). Tourism innovation networks: A regional approach. *European Journal of Tourism Research, 18,* 33–56. https://ejtr.vumk.eu/index.php/about/article/view/312

Cornelissen, J. (2020). *Corporate communication: A guide to theory and practice* (6th ed.). SAGE. https://uk.sagepub.com/en-gb/asi/corporate-communication/book268492

Fatoni, A. (2019). Chain network akun Twitter BMKG (@infoBMKG) dalam penyebaran indormasi cuaca, iklim dan gempa bumi. *Journal Mediakom, 3*(1), 1-17. https://doi.org/10.35760/mkm.2019.v3i1.1978

Feeney, M. K., & Porumbescu, G. (2020). The limits of social media for public administration research and practice. *Public Administration Review, 81*(4), 787-792. https://doi.org/10.1111/puar.13276

Fitriyah, P., & Fatoni, A. (2020). *Media, komunikasi dan informasi di masa pandemi Covid-19: Communication and network krisis badan nasional penanggulangan bencana Indonesia pada era transisi Covid-19 di Twitter*. Jakarta: Mbridge Press.

Fitriyah, P., Fatoni, A., & Nasher, A. (2021). Communication and network crisis: Mapping of important actors in the #BersatuLawanCovid19 campaign on Twitter. *Proceedings of the 6th International Conference on Social and Political Sciences* (ICOSAPS 2020), 232-238. https://doi.org/10.2991/assehr.k.201219.035

Gani, N. S., Fitriana, A. D., Sila, A. M., Fitriani, R., & Yuliarti, A. (2020). *Covid 19 dalam bingkai komunikasi*. IAIN Prepare: Nusantara Press.

Gretzel, U. (2018). Tourism and social media. In C. Cooper, S. Volo, W. C. Gartner, & N. Scott (Eds.), *The Sage handbook of tourism management: Applications of theories and concepts to tourism* (No. 28, Part 05: Technological Applications). SAGE.

Hanneman, R. A., & Riddle, M. (2005). *Introduction to social network methods.* California: Riverside.

Heinonen, K., & Medberg, G. (2018). Netnography as a tool for understanding customers: implications for service research and practice. *Journal of Services Marketing, 32*(6). https://doi.org/10.1108/JSM-08-2017-0294

Hicksa, D., Cavanaghb M. F., & VanScoy, A. (2020). Social network analysis: A methodological approach for understanding public libraries and their communities. *Library & Information Science Research, 42*(3), 101029. https://doi.org/gj8cfq

Holloway, J. C., & Humphreys, C. (2020). *The business of tourism* (11th ed.)*.* SAGE.

Huda, M. (2019). Empowering application strategy in the technology adoption: Insights from professional and ethical engagement. *Journal of Science and Technology Policy Management, 10*(1). https://doi.org/10.1108/JSTPM-09-2017-0044

Intan, P. (2020, March 12). Imbas Corona, Pariwisata Indonesia rugi Rp 21,8 triliun. *Detik Travel.* https://travel.detik.com/travel-news/d-4936247/imbas-corona-pariwisata-indonesia-rugi-rp-218-triliun

Jefkins, F. (2005). *Public relations* (Trans. by Daniel Yadin, 5th ed.). Jakarta: Erlangga.

Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Inf Syst Front, 20,* 531–558. https://doi.org/10.1007/s10796-017-9810-y

Kementerian Pariwisata dan Ekonomi Kreatif (Kemenparekraf). (2019). Neraca satelit Pariwisata nasional 2017. http://www.kemenparekraf.go.id/post/neraca-satelit-pariwisata-nasional-2017

Kementerian Pariwisata dan Ekonomi Kreatif (Kemenparekraf). (2019). Statistik wisatawan nusantara 2018. http://www.kemenparekraf.go.id/post/statistik-profil-wisatawan-nusantara-2018

Knoke, D., & Yang, S. (2019). Social network analysis (3rd ed.). SAGE Publications.

Kotler, P., & Keller, K. L. (2016). *Marketing management*. Jakarta: PT. Indeks Kelompok Gramedia.

Kozinets, R. V. (2002). The field behind the screen: Using netnography for marketing research in online communities. *Journal of Marketing Research, 39,* 61–72.

Kozinets, R. V. (2015). *Netnography: Redefined* (2nd Edition). SAGE Publication.

Kozinets, R. V. (2019). *Netnography: The essential guide to qualitative social media research* (3rd ed.)*.* London: SAGE Publication.

Kozinets, R. V., & Gambetti, R. (2020). *Netnography unlimited: Understanding technoculture using qualitative social media research.* Routledge. https://doi.org/gjf2bh

Kwak, D. H., Ma, X., Polites, G., Srite, M., Hightower, R., & Haseman, W. (2018). Cross-level moderation of team cohesion in individuals' utilitarian and hedonic information processing: Evidence in the context of team-based gamified training. *Journal of the Association for Information Systems, 20*(2). https://doi.org/10.17705/1jais.00532

Lasswell, H. D. (1948). *The structure and function of communication in society*. In Bryson, L. (ed.), *The communication of ideas*. New York: Harper and Brothers.

Leung, D. Y., Kumlien, C., Bish, M., Carlson, E., Chan, P. S., & Chan, E. A. (2021). Using internationalization-at-home activities to enhance the cultural awareness of health and social science research students: A mixed-method study. *Nurse Education Today, 100,* 104851. https://doi.org/10.1016/j.nedt.2021.104851

Liberatore, A., Bowkett, E., MacLeod, C.J., Spurr, E., Longnecker, L. (2018). Social media as a platform for a citizen science community of practice. *Citizen Science: Theory and Practice, 3*(1). http://doi.org/10.5334/cstp.108

Ljiljana, Z.-K., & Jurica, G. (2019). The implications of ICT use in tourists' travel patterns: Case of Zadar. In D. Vrontis, Y. Weber, & E. Tsoukatos (Eds.), *Business management theories and practices in a dynamic competitive environment* (pp. 1543-1556). EuroMed Press. https://www.academia.edu/44666596/THE_IMPACT_OF_BEHAVIORAL_INCONSISTE NCIES_ON_STOCK_RETURN_A_THEORETICAL_FRAMEWORK

Musabirov, I., & Bulygin, D. (2020). Prototyping text mining and network analysis tools to support netnographic student projects. *International Journal of Emerging Technologies in Learning (iJET), 15*(10).

Nurrokhman, Purnomo, H. D., & Hartomo, K. D. (2020). Utilization of social network analysis (SNA) in knowledge sharing in college. *INTENSIF: Jurnal Ilmiah Penelitian dan Penerapan Teknologi Sistem Informasi, 4*(2). https://doi.org/gxtm

Reuter, C., & Kaufhold M.-A. (2018). Fifteen years of social media in emergencies: A retrospective review and future directions for crisis Informatics. In C. Reuter & T. Mentler (Eds.), *Special issue: Human-computer-interaction and social media in safety-critical systems* (Volume 26, Issue 1, pp. 41-57). Wiley. https://doi.org/gc3499

Revindo, M. D., & Alta, A. (2020). *Seri analisis ekonomi: Trade and industry brief (April 2020)*. Lembaga Peyelidikan Ekonomi dan Masyarakat, Universitas Indonesia. https://www.lpem.org/id/seri-analisis-ekonomi-trade-and-industry-brief-april-2020/

Revindo, M. D., Sabrina, S., & Sowwam, M. (2020, April). *Dampak pandemi Covid-19 terhadap pariwisata Indonesia: Tantangan, outlook dan respon kebijakan*. Lembaga Peyelidikan Ekonomi dan Masyarakat, Universitas Indonesia. https://www.lpem.org/id/briefing-note-april-2020-dampak-pandemi-covid-19-terhadap-pariwisata-indonesia-tantangan-outlook-dan-respon-kebijakan/

Sari, N. (2018). *Analisis faktor-faktor yang menentukan penggunaan media sosial Instagram sebagai media promosi pada online shop (Studi pada online shop di Jalan Dr. Mansyur Medan)* [Skripsi, Universitas Sumatera Utara]. USU Repositori.

Sukirno, Z. L., & Irfan, E. (2019). Teknologi komunikasi informasi dan dekonstruksi tren Pariwisata. *Tourism And Creativity, 3*(2). https://doi.org/10.19184/jtc.v3i2.14023

Tabassum, S., Pereira, F. S. F., Fernandes S., & Gama, J. (Eds.). (2018). *Social network analysis: An overview*. In, *WIREs Data Mining and Knowledge Discovery* (Volume 8, Issue 5, pp. e1256). Wiley. https://doi.org/10.1002/widm.1256

Twitter Help Center. (n.d.). How to use hashtags. https://help.twitter.com/en/using-twitter/how-to-use-hashtags

Xiang, Z. (2018). From digitization to the age of acceleration: On information technology and tourism. *Tourism Management Perspectives, 25*, 147-150. https://doi.org/gdcv5m

Wahyudi, I. (2020, October 12). Konsep pengembangan pariwisata. *DPRD Kabupaten Kepulauan Taulad*. http://dprd.talaudkab.go.id/baca-berita-180-konsep-pengembangan-pariwisata.html

World Health Organization (WHO). (2020, March 26). Critical preparedness, readiness and response actions for COVID-19. https://www.who.int/publications/i/item/critical-preparedness-readiness-and-response-actions-for-covid-19

World Economic Forum. (2020, March). How fast is coronavirus spreading? https://www.weforum.org/agenda/2020/03/upward-trajectory-flattening-curve-how-countries-are-faring-coronavirus-covid-19/

Wright, D. K., & Hinson, M. D. (2009). Examining how public relations practitioners actually are using social media. *Public Relations Journal, 3*(3). https://apps.prsa.org/SearchResults/view/6D-030304/0/Examining_How_Public_Relations_Practitioners_Actua#.YVTRuZpBw2w

Yuan, C. W., & Lee, Y-H. (2021). Connecting and being connected: Investigating friending practices across multiple social networking sites. *Information Technology & People*. https://doi.org/10.1108/ITP-07-2020-0486

Zeng, B. (2013). Social media in tourism. *Journal of Tourism & Hospitality, 2*(1), 1000e125. https://doi.org/10.4172/2167-0269.1000e125