

Tourism Digitalization Through the Implementation of National Tourism Information System “Sisparnas” in Papua Province

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ABSTRACT

The study discusses the digitization of tourism with a focus on the Implementation of the National Tourism Information System (Sisparnas) in Papua Province. The method used is a library research approach. The results of this study indicate that the tourism competitiveness index for Papua is still low, at 30 (thirty) out of 34 (thirty-four) provinces in Indonesia. Furthermore, updating the Sisparnas data was carried out by involving a team of surveyors who served in five customary areas. The surveyor team is equipped through the implementation of technical guidance to provide education on the importance of data and information in order to develop tourism. As a recommendation for engagement, the surveyor should not only see from the perspective of experience in the field of tourism but also understand the conditions and situation of the area as well as the tourism potential of the area, therefore, it is better for the surveyor team to come from representatives of each regency or city.

INTRODUCTION

Recovery in the economic sector is the government's focus after the Covid-19 Pandemic. One of them is through the development of the tourism sector. With the development of the tourism sector, it is believed that it will also have an impact on increasing the economy of a country. Nowadays, the development of the tourism sector is increasingly important to do, because it is a source of foreign exchange for a country, stimulate the economy and can create jobs (Sutanto and Lubis (2016). In other words, referring to Binus.ac.id (2014) the development of the tourism sector is commercial in nature for the purpose of bringing in state revenue. Meanwhile, Athanasopoulos et al., in Octavanny and Kurniasari (2022) say that in economic development in various regions, the tourism sector has such a large contribution that tourism management is needed.

The ultimate goal of development in the tourism sector is to increase people's income, where this will certainly have an impact on increasing people's welfare. Referring to Dristasto and Anggraeni (2013) said that to advance the people's economy, the development of the tourism industry is one very appropriate means. Therefore, this tourism must then be managed properly, professionally, effectively and efficiently (Ilham et al., 2020). Borrowing the opinion of Zulfalah, (2019) who said that along with increasing people's income, vacationing has become a necessity which is now also experiencing an increase. So, an information system regarding tourism is needed, such as; tourist destinations, attractive tourist spots, as well as tourism facilities, and so on.

The availability of a tourism information system can provide convenience for tourists in order to obtain information related to tourist attractions to be visited, as well as easily schedule travel plans as well as budget requirements that are prepared. In tune, Ilham (2019) argues that the availability of a tourism information system will make it easier for potential tourists to determine their travel plans to a tourist attraction. Likewise conveyed by Nurhayati and Ristanto, (2017) stated that the availability of various aspects of tourism information can help tourists make decisions about their travel plans. Given that currently, many tourists are taking advantage of technological developments to make travel easier (Kristiana, 2018).

The development of an information system in the tourism sector is a system that is used as a processing and storage of tourism data, in order to support tourism operations (Ingriawan, 2021). Tourism information systems, in addition to the information needs of potential tourists, including tourism industry managers, also need the data and information as well as the government as a tourism policy maker. According to Zulfalah, (2019) a tourism information system will assist the government in determining policy directions in the tourism sector, the existence of a well-integrated information system through the support of a computer system will provide convenience in managing tourism data. In sum, the need for information in the tourism sector is increasing so that it needs to be prepared in a structured manner so that it can be accessed easily (Zulfalah, 2019).

Papua as a province located at the eastern tip of Indonesia has a variety of potentials that can be developed in the tourism sector. Papua's tourism potential is almost the most complete in Indonesia, such as its pristine nature, distinctive and unique cultural diversity which can be a special attraction (Ismail, 2020). Papua's tourism potential, which has a diversity of arts, culture, flora and fauna, includes storing the beauty of natural panoramas so that it is often dubbed a little paradise that fell to the land of Papua (Teti et al., 2022). Even so, Zulfalah, (2019) said that to get tourism information sometimes potential tourists experience difficulties. Ignorance about where and to whom they should get information is a separate problem faced by tourists when they want to visit a tourist destination.

The results of the study by Nurhayati and Ristanto (2017) state that the Province of Papua has many unique and interesting tourism places that are worth visiting, however, due to the lack of information about these tourist attractions, it is deserted by visitors. According to Ismail, (2020) this problem is not an easy matter, so it is important to address issues such as infrastructure support, a tourism promotion system, community education as an effort to promote Papuan tourism. This includes not maximizing the use of information technology in developing the tourism sector in Papua.

In the context of the progress of Indonesian tourism, one of the steps taken by the government is by presenting the National Tourism Information System [Sisparnas]. "Sisparnas" is a data platform launched by the Ministry of Tourism and Creative Economy of the Republic of Indonesia. This application aims to provide information regarding the existence of tourist objects, attractions, and the availability of infrastructure supporting tourism in all regions of Indonesia (Tulis, 2022).

Departing from the description above, in this study then aims to determine the extent of digitalization-based tourism development in Papua Province, with a focus on discussing the Implementation of the National Tourism Information System.

THEORETICAL REVIEW

Overview of Digitalization

Digital technology is technology no longer using human power, or manuals. But tend to the system automatic operation with computerized system or format computer readable. Digital systems [digitization] are development from an analogue system (Aji, 2016). Digitalization is a process of switching analog information media to digital media. Broadly speaking, digitization is the process of converting printed forms into electronic form through a scanning process to create electronic pages that are suitable for computer storage, retrieval and transmission. This means that digitization is the process of converting data into digital form for processing via a computer (Puspaningtyas and Dewi; Maskar et al, in Yulianti, 2021).

Quoting Wuryantai (2004), digitization is a process in which all forms of information whether numbers, words, images, sound, data, or motion are encoded into bits (binary digits or commonly symbolized by the representations

0 and 1) that allow data manipulation and transformation (bitstreaming). Furthermore, Sukmana cited by Asaniyah (2017), digitization is the process of transferring media from print, audio and video to digital form. Digitization is carried out to create document archives in digital form, for photocopying functions, and to create digital library collections. Digitalization requires equipment such as computers, scanners, media source operators and supporting software.

Information Systems

Information systems that are managed can be better and more useful if in the management process they can utilize information technology which of course will provide a lot of added value because of the advantages possessed by information technology, for example making manual processes turn into automatic ones (Dasar, 2011). An information system is a system that is used to store and analyze data that has been input and produces a report format that represents the data that has been input. The information system is a combination of programming languages supported by a database system. According to Ajie (2006) an information system is built from subsystems consisting of: Hardware (hardware), Software (software), Human (brainware), Data, and Procedure.

Tourism Concept

Referring to Yoeti in Tokang and Yumame (2023), tourism is a journey that is carried out either in the form of individuals or groups that are temporary in nature, there is movement from one place to another to enjoy a vehicle for recreational purposes.

Tourism comes from Sanskrit which consists of two syllables, namely "pari" intact, while "wisata" means travel. So that overall tourism is defined as all phenomena or symptoms and relationships caused by trips or stops made by someone for various purposes. Etymologically tourism consists of two syllables, namely "pari" and "wisata", pari means many, many times, repeatedly, while tourism means travel, so tourism is a trip that is carried out many times or repeatedly from one place to another (Suryani, 2017).

METHODOLOGY

This study was conducted by utilizing a library research approach. Library research is part of the type of qualitative research. This is as conveyed by Hamzah in Ilham et al., (2020) that the library research method is part of qualitative research that has an emic perspective and works at an analytical level, while the data obtained is not based on the perception of the researcher but on conceptual facts or theoretically, in the type of library research, what becomes the subject of library materials. Therefore, interviews and observations were not carried out, but text and discourse analysis were carried out by moving the field setting to the library room (Hamzah, in Sapioper et al, 2021).

Sources of data in this study were obtained from various sources of literature, such as; journals, proceedings, online platforms, and other literary sources considered relevant to the topic under study. Furthermore, because

library research is part of qualitative research, data analysis is carried out interactively, continuously until it is complete, until the data is saturated (Lisabella, 2012). The data analysis was carried out through several stages, including data reduction, data presentation and final conclusion.

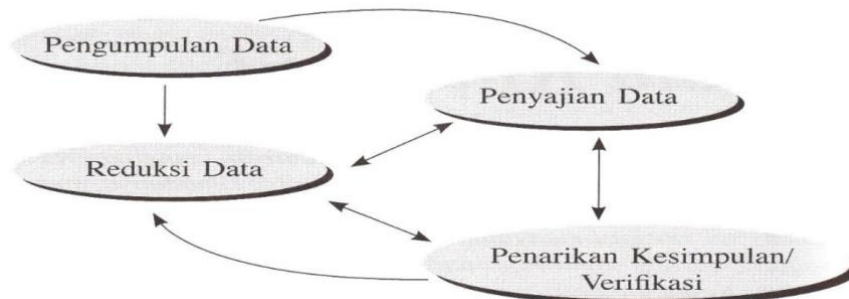


Figure 1. Miles & Huberman Interactive Data Analysis Flow (Lisabella, 2012)

RESULTS

National Tourism Information System “Sisparnas”

The National Tourism Information System “Sisparnas” is a data platform regarding the existence of tourist objects, attractions and availability supporting infrastructure from all regions in Indonesia by utilizing big data technology innovations and adaptive approaches in mapping, both from terms of potential and strengthening of the tourism sector, generate information tourism indicators as supporting data in policy making as service facilities provided for tourism actors and the government (Sisparnas, 2022). This is of course in line with the mandate of Law Number 10 of 2009 on tourism. The regulation explains that the Central government and Regional Government guarantee the availability and dissemination of information to the public for the benefit of tourism development. National tourism information system or commonly referred to as Sisparnas is a national tourism data and information center where data sources are collected independently by destination managers, the tourism industry, including the Provincial, Regency and City Tourism Agency. This data process was then developed with the principle of one tourism data Provincial, Regency and City Tourism Agency which has dashboards, data collection instruments, and the formulation of regional tourism analysis (Navasari, 2022). The following image shows instructions for using the Sisparnas application.



Figure 2. Instructions for Using the Sisparnas Application (Source: Sisparnas, 2022)

The presence of the Sisparnas application makes it easy to search data related to tourism. Some of the features available when visiting or exploring the National Tourism Information System “sisparnas” application on the <https://sisparnas.kemenparekraf.go.id/> site [namely: Regional Index, Accessibility, Amenities, Tourism Destination Areas (DTW), Crisis Management, and Infographics]. An explanation of some of these features can be described as follows:

1) Regional Index

This feature provides the Destination Capacity Index, Competitiveness Index, Sustainable Tourism Index, and Economic Index.

2) Accessibility

By exploring this feature, potential tourists can find out the number and location of airports, terminal stations and seaports.

3) Amenities

In this feature, potential tourists can access a number of tourism accommodation services, such as; hotel accommodation services, and food and beverage services

4) Tourist Destination Areas (DTW)

To find out the Tourism Destination Areas (DTW) in a province to Regency/City, potential tourists will be given convenience by accessing this feature. This feature provides information on Super Priority Destinations (DSP) and Priority Tourism Destinations (DPP), including information on Tourism Villages in each Regency/City.

5) Priority

This feature provides information on 5 (five) Super Priority Destinations (DSP), and 10 (ten) Priority Tourism Destinations (DPP) in Indonesia.

6) Crisis Management

To get Indonesian disaster data, visitors will get information when exploring this feature. Disaster data, both nationally, each province, year

and type of disaster, disaster distribution maps, information on recent disasters and earthquakes.

7) Graphic Info

This feature will present graphs of visits by foreign tourists and Indonesian citizens, both at Super Priority Destinations (DSP), Priority Tourism Destinations (DPP), to the number of visits to tourist destinations at regional to city-regency levels.

National Tourism Competitiveness Index

Based on a search conducted in the National Tourism System “Sisparnas)” application on May 2, 2023, South Sulawesi Province is still ranked 1 (one) out of 34 (thirty four) Provinces. Followed by West Sumatra which is ranked 2nd (two), and DKI Jakarta is ranked 3rd (three). Meanwhile, West Papua was ranked last (34th), Southeast Sulawesi was ranked 33 (thirty three), East Nusa Tenggara Province was ranked 32 (thirty two), Riau Province was ranked 31 (thirty one), Papua itself is ranked 30 (thirty). For more details, see the following table:

Table 1. National Tourism Competitiveness Index

| Province | Rank | Competitiveness Index |
|--------------------------------|------|-----------------------|
| South Sulawesi | 1 | 38.66 |
| West Sumatra | 2 | 37.35 |
| DKI Jakarta | 3 | 26.45 |
| West Java | 4 | 20.81 |
| Bali | 5 | 12.11 |
| Special Region (DI) Yogyakarta | 6 | 10.84 |
| South Kalimantan | 7 | 9.49 |
| Banten | 8 | 9.41 |
| Central Java | 9 | 7.60 |
| North Sumatra | 10 | 6.97 |
| East Kalimantan | 11 | 5.04 |
| Maluku | 12 | 3.97 |
| West Nusa Tenggara | 13 | 3.87 |
| Central Kalimantan | 14 | 2.73 |
| Riau Islands | 15 | 2.49 |
| Lampung | 16 | 2.38 |
| South Sumatra | 17 | 2.36 |
| West Kalimantan | 18 | 2.28 |
| East Java | 19 | 2.16 |
| Jambi | 20 | 2.11 |
| North Sulawesi | 21 | 2.02 |

| | | |
|-------------------------|----|------|
| Bangka Belitung Islands | 22 | 1.89 |
| Bengkulu | 23 | 1.87 |
| West Sulawesi | 24 | 1.79 |
| Central Sulawesi | 25 | 1.73 |
| North Kalimantan | 26 | 1.61 |
| DI Aceh | 27 | 1.61 |
| Gorontalo | 28 | 1.54 |
| North Maluku | 29 | 1.34 |
| Papua | 30 | 1.24 |
| Riau | 31 | 1.18 |
| East Nusa Tenggara | 32 | 1.16 |
| Southeast Sulawesi | 33 | 0.75 |
| West Papua | 34 | 0.67 |

Data Source (Sisparnas, 2022; Processed 2023)

Based on data obtained from the Sisparnas application, it is revealed that the tourism competitiveness of Papua Province is still low when compared to other provinces in Indonesia. Papua Province is still ranked 30th (thirty) out of 34 (thirty four) Provinces. According to Muttaqin et al., (2022) if Papua tourism is still unable to compete with other regions because the potential that exists has not been able to be utilized and managed properly.

According to Ismail (2020), the development of Papuan tourism experiences several obstacles such as a lack of tourism promotion, high migration to Papua, as well as unstable security conditions. Seeing that, currently the priority recommendations from the government are strengthening connectivity or land and air access to destinations, organizing tourism activities through the implementation of community-based ecotourism patterns, besides that the development of Papua tourism is currently important to focus on the tourist attractiveness of provincial tourist destinations, and no less important is the waste management system, providing infrastructure for clean water networks, international standard toilets, and optimally available communication facilities in tourist destination areas (Info BPIW, 2021).

The ranking of the tourism competitiveness of Papua Province nationally can also be seen in the following figure:



Figure 3. National Tourism Competitiveness Index (Sisparnas, 2022)

Papua Province National Tourism Information System

The National Tourism Information System “Sisparnas” as a national tourism information platform accommodates Indonesian tourism, including tourism in Papua Province. The collection of tourism data begins in 2022. The Sub-coordinator of Community Social and Cultural Development of the Directorate of Destination Management of the Ministry of Tourism and Creative Economy of the Republic of Indonesia, Feri Suprpto said that the collected data can later be used in compiling a data base policy, compiling policies based on Data and knowledge (informacy knowledge policy), including the availability of these data, can be used by tourists to access information when planning a tourist visit to Papua Province (JPatading, 2022a).

The availability of Papuan tourism information in the sisparnas application can increase tourist visits to Papua Province, increasing tourist visits will certainly have an impact on increasing the economy which will in turn lead to an increase in the welfare of the Papuan people.

Therefore, Martinus Hutahaean, as Commitment Making Officer (PPK) of the Deconcentration Fund of the Culture and Tourism Office of the Province of Papua, hopes that Sisparnas can reach all regency/cities in Papua in order to promote Papua's tourist attractions (JPatading, 2022b).

Martinus Hutahaean said that the presence of the “sisparnas” application would provide distinct benefits to tourists and even more so to owners of tourist destinations, because sisparnas, not only talks about tourist attractions, how the local wisdom of the community is, but includes whether or not lodging is available, how is the transportation and security. By him, in the future we will work cross-sectorally in collaboration with the transportation agency, public works agency, the Regional Disaster Management Agency, as well as the National Statistics Agency (JPatading, 2022b).

1) *Surveyor Engagement in 5 Indigenous Territories*

In order to succeed in collecting and inputting Sisparnas data, the Tourism and Culture Office of the Papua Parovinsi recruited 7 (seven) surveyors assigned to 5 (five) Papuan customary territories, each of the Mamta, Saereri, Anim Ha, La Pago, and Mee Pago customary territories.

This is in line with the submission of the Commitment Making Officer [in Indonesian it is called PPK, which is an abbreviation] of the Deconcentration Fund of the Papua Provincial Culture and Tourism Agency, Martinus Hutahaeen said that the involvement of the surveyor team was carried out due to budget constraints, with this reason also not inviting or involving from the regency/city (Jpatadingb, 2022b). Furthermore, the team of surveyors recruited came from Papua Province, especially in Jayapura City. The minimum criterion was that they had two years of experience in tourism (Jpatadingb, 2022b). The surveyor team will be tasked with collecting data for approximately 3 (three) months in 29 (twenty-nine) urban districts spread across 5 (five) customary territories.

Referring to Udjan (2022) saying that good data is not seen in terms of quantity but the quality of the data, so a well-planned and well-conducted survey is needed with the aim of getting data as well as quality information. Seeing that, the recruited surveyor team must be truly experienced in the tourism sector. In addition, this surveyor should have an understanding of the regional situation as well as the existing tourism potential in the area, therefore the authors see that this surveyor team should come from representatives of the respective regencies/cities who have received recommendations from the tourism agency in each regency /city. Nevertheless, due to budget constraints, they did not invite regencies/cities (Jpatading, 2022b).

2) *Papua Sisparnas Data Update*

In order to complete the data on the Sisparnas platform in the context of providing digital and integrated tourism data management. The Papua Province Culture and Tourism Agency held Technical Guidance in collaboration with the Ministry of Tourism and Creative Economy. The implementation of technical guidance is carried out in the context of inputting data in the National Tourism Information System "Sisparnas". This activity is aimed at the State Civil Apparatus [ASN] and surveyors whose job is to update Sisparnas data.

Head of the Papua Province Culture and Tourism Agency, Yimin Weya said that the implementation of technical guidance was very important to provide participants with an understanding of Sisparnas, how data was collected, as well as what data was needed, including how to input data in the Sisparnas application (JPatading, 2022a). Referring to Riz (2022) it is said that the implementation of Sisparnas technical guidance will provide education regarding the importance of data and information in the context of developing tourism, as well as complementing existing tourism databases in the regions that can be

managed digitally and integrated from national, regional, to regency levels and city.

In relation to the implementation of the Technical Guidance, the Sub-Coordinator of Community Social and Cultural Development of the Directorate of Destination Management of the Ministry of Tourism and Creative Economy of the Republic of Indonesia, Feri Suprpto said that apart from dealing with data management and exposure, it is also important to carry out preparations towards digitalization-based industrial transformation, This is of course in line with the Tourism and Travel Competitiveness Index (Travel and Tourism Competitiveness Index) in the framework of setting targeted and measurable targets and policies, towards digitalization-based industrial transformation, especially in the eastern regions which can be continuously improved (JPatading, 2022a).

With the availability of digitization-based tourism data from the center down to the regency and city levels, it becomes a readiness in order to enter the digitalization transformation of tourism (Jpatading, 2022b). The tourism database is an important component for both tourists, destination managers including the government.

According to Hariyanto (2021) with the support of good tourism data, it will also form the basis of strategic plans as well as regional tourism development programs. As with Papuan tourism, to support tourism development in Papua Province, it must also be supported by a good tourism information system.

CONCLUSIONS AND RECOMMENDATIONS

Based on application data from the National Tourism Information System "Sisparnas", the tourism competitiveness index for Papua Province is still low when compared to other provinces in Indonesia. Papua Province is still ranked 30th (thirty) out of 34 (thirty four) Provinces. Papuan tourism is still unable to compete with other regions, partly because the existing potential has not been utilized and managed properly. To increase tourist visits to Papua Province, one of the efforts that can be made is to maximize the utilization of the National Tourism Information System [Sisparnas].

To complement the Sisparnas data, efforts were made to recruit a team of surveyors. The involvement of the surveyor team was carried out due to budget constraints. It is also for this reason that they do not invite or involve regency/city officials. The surveyor team recruited came from Papua Province, especially in Jayapura City. The minimum criterion is that they have two years experience in tourism. The surveyor team then collected tourism data in 5 [five] customary areas, each of the Mamta, Saereri, Anim Ha, La Pago and Mee Pago customary areas.

Furthermore, technical guidance was carried out for the State Civil Apparatus (ASN) and a surveyor team tasked with updating sisparnas data. Technical guidance aims to provide education on the importance of data and information in the framework of developing tourism, complementing regional

tourism databases based on digitization and integrated from the national, regional, to the regency and city levels.

As a recommendation, the involvement of surveyors should not only be seen from the perspective of experience in the field of tourism but also include understanding the conditions and situation of the area as well as the tourism potential that exists in the area, therefore the authors see that the surveyor team should come from representatives of the respective regencies/cities each of which has received a recommendation from the tourism office in each regency/city.

FURTHER STUDY

This article is a literature review, where data comes from literary sources. This makes the results of the study dynamic which allows changes/developments to occur in the future. So it is necessary to carry out further research with the same focus, but using different approaches and data sources in order to support this study, in relation to the application of a national tourism information system in Papua Province.

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