



Identification of Operational Risk Management Performance in Zone 1 of the Dieng Plateau, Central Java, Indonesia

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ABSTRACT

Dieng Tourism, with its diversity of natural beauty and interesting history, offers great potential for development. Having been affected by the Covid-19 pandemic, which resulted in a decrease in income and difficulties for tourism businesses, currently tourists visiting Dieng are recovering. The development of technology and tourist lifestyles after the Covid 19 pandemic has created a need for memorable, risk-based travel experiences. Tourism operational risk management is very important in ensuring tourism sustainability and tourist safety in the Dieng tourist destination. This research aims to identify operational risk events related to the management of the Dieng tourist area. Data collection uses the triangulation method by integrating observation techniques, communication techniques and documentation analysis. From the research results found several important things that need to be considered in order to improve operational risk management performance, as is the case with the availability of information, cleanliness, safety, quantity and quality of officers, all of which can give rise to operational risks that affect the tourist experience and the overall operation of the Dieng tourist area.

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1. INTRODUCTION

The Indonesian tourism industry has gone through a difficult few years due to the impact of the COVID-19 pandemic. The real performance results of the vaccination program launched by the Indonesian Government in 2021, means that conditions in the tourism sector in the country are starting to gradually improve. Judging from tourism developments in 2022, around 35.71% of experts are optimistic that tourism conditions will fully recover to the same as before the pandemic in 2022. 2024 (Kemenparekraf, 2023). Along with the improving performance of the tourism sector, developments in technology and tourist lifestyles after the Covid 19 pandemic have given rise to demand for memorable, risk-based travel experiences (Kiswanto, Amin, et al, 2022; Sugiarto & Herawan. T., 2022). The impact of the Covid-19 pandemic has made tourists pay more attention to safety, security and certainty (Sugiarto, et al, 2024). As a consequence mTourism operational risk management is very important in ensuring tourism sustainability and tourist safety in the Dieng tourist destination (Lemy, Diena, M, et al, 2024; Sugiarto, 2023a; Sugiarto, 2023b).

The Indonesian government has set a performance target for the Indonesian tourism sector in 2024, with a projected foreign exchange value of between US\$7.38 billion to US\$13.08 billion or around IDR 114.06 trillion to IDR 202.15 trillion. The Ministry of Tourism and Creative Economy is targeting the number of foreign tourist visits of 9.5 to 14.3 million and 1.5 billion domestic tourist trips. The Indonesian government also aims for the Indonesian tourism sector to be able to contribute 4.5 percent to the national Gross Domestic Product (GDP), an increase from 4.1 percent in 2023. In recent years, Indonesian tourism has experienced significant growth in the number of domestic tourist trips and visits by foreign tourists. In the first semester of 2023, the number of domestic tourist trips reached 433.57 million, an increase of 12.57% compared to 2022. Meanwhile, the number of foreign tourist visits as of July 2023 reached 6.31 million, an increase of 196.85% compared to in 2022(Kemenparekraf, 2023; Rindi Salsabilla, 2023).

The Dieng Plateau, located in Central Java Province, Indonesia, has great potential to attract domestic and foreign tourists. This area is famous for its diverse and unique cultural riches, as well as presenting various interesting natural and artificial tourist attractions (Ardianto, Eka; Sugiarto, Sugiarto, 2022). Natural tourist attractions in the Dieng Plateau include craters, lakes, stunning mountain panoramas, Sikunir Peak, Mount Prau, Telaga Cebong, Sileri Crater, and many more(Rindang Krisnawati, 2023; visitjawatengah, 2020),while the tourist attractions include the Kailasa Museum, temple area and viewing post. The Dieng Tourism Area has a special and diverse cultural richness, which is the main potential for attracting tourist interest. In the Dieng Plateau, there are abundant tourist attractions such as high peaks, hills, lakes, waterfalls, craters, as well as historical remains in the form of temples (Sugiarto & Herawan, Tutut, 2022). Apart from that, Dieng also offers tourism based on customs and culture, such as dreadlock hair cutting celebrations and annual music festivals. With a variety of interesting tourist destinations and their potential, Dieng is a tourist destination that should not be missed for those looking for unique natural and historical experiences.(Wati, 2023).

Apart from its potential and attractiveness, there are several things such as the risk of landslides, volcanic activity and unpredictable weather which affect the development of tourism in Dieng. To develop Dieng tourism, it is necessary to improve the quality of human resources, supporting infrastructure, more intensive promotion, empowerment of local communities in Dieng, collaboration with stakeholders, risk management, especially operational risk. From the various risk pillars listed in the Tourism Risk Event Model, tourism operational risk management is very important in ensuring sustainability and safety in the

tourism industry because it is directly related to tourist satisfaction (Sugiarto, 2023b). Operational risk is the risk posed by incompetence or failure of internal processes, including software systems, employees, and hardware facilities, amenities.(Sugiarto, 2023b). Several studies regarding operational risk management performance in the Dieng tourist destination have been conducted, such as research on operational risk management of homestays in the Dieng tourist destination, the findings of which found that operational risk management had a significant positive influence on homestay user satisfaction. The findings of this research also found that satisfaction has a significant positive influence on the intention to revisit and the intention to recommend homestay users. In this study, it was shown that satisfaction has a significant positive role as a mediating variable for operational risk management on intention to revisit and intention to recommend homestay users (Sugiarto & Herawan, Tutut, 2022). Another research was conducted by Wati (2023) uses surveys, and interviews with tourists, and involvement of agencies and the community. The research findings reveal several significant weaknesses in the development of Dieng tourism. The main obstacles found include limited accessibility and lack of promotion through print and electronic media. Apart from that, the quality of human resources in the Dieng area is also an obstacle in tourism development. To overcome this challenge, several strategies are proposed, including improving the quality of human resources in local communities, repairing and expanding roads to tourist attractions, developing tourist destinations that have not been fully utilized, increasing investment, providing guidance and supervision to surrounding communities, and carrying out more intensive promotion. From the studies that have been conducted so far, the sources of which can be accessed, no research has been found relating to the identification of operational management performance in terms of tourism destinations as a whole, this creates a research gap for conducting this research.

2. LITERATURE REVIEW

Risk management

Risk management in the tourism business aims to manage the risks faced by tourism businesses and minimize the impacts that occur (Bong, Soeseno, et al, 2019; Sugiarto, 2023a; Sugiarto, 2023b). In its implementation, risk management applies the stages of establishing the risk context, identifying risks, analyzing risk exposures and analyzing the impact of risk exposures. The basic principles of risk management reflect the general objectives of company management, namely to maximize company value and shareholder wealth by producing expected performance in the future.

Operational Risk Management

Operational risk is the risk posed by the inability or failure of internal processes which include software systems, employees and hardware facilities as well as amenities ((Bong, Soeseno, et al, 2019; Sugiarto, 2023a; Sugiarto, 2023b). Operational risk management has an impact significant positive impact on tourist satisfaction, therefore it is very important for the sustainability of tourist destinations in particular and tourism in general (Sugiarto & Herawan, Tutut, 2022).

Risk Events

Risk events are various events that create the potential for undesirable outcomes that result in losses, either direct or indirect. Triggers for tourism risk events come from various uncertainties, namely uncertainty about natural conditions, human behavior, animals, plants, economic and political conditions as well as epidemics and other triggers. In connection with operational risk management, it is necessary to identify risk events from operational risks (Sugiarto & Herawan, Tutut, 2022).

Tourism Products

According to (Yoeti, 2013), products in the tourism industry are known as line products that are used simultaneously. Tourism products are all facilities or services, both tangible and intangible, that are provided for tourists to enjoy during their trip, from the moment they leave their residence until they return after visiting the chosen tourist destination. This aims to provide a satisfying experience for tourists throughout their journey (Muljadi, 2010; Octaviany, 2016). The dimensions of tourism products are measured by three main factors, namely tourist attractions, facilities and amenities, and accessibility (Mulyadi, 2010). This concept is in line with that explained by Dani (2019) In this research, the dimensions of tourism products are understood as follows. First, tourist attractions are potential attractions for tourists to visit a destination. Second, facilities and amenities include various facilities that support each other and provide comfort and satisfaction for tourists during their trip. Third, accessibility refers to the ease for tourists to reach tourist destinations through various means of transportation.

3. RESEARCH METHOD

This research uses a qualitative approach by conducting field studies in Zone 1 of the Dieng Plateau. Research methods include searching, data collection, and interviews with Zone 1 managers to understand how operational risk management is carried out in the area. This research is descriptive in nature, describing events and related aspects based on observed facts and phenomena. Observation techniques are used to collect data from research locations and

respondents, while interviews are conducted to obtain the information needed according to the problem being studied. Documentation is used to analyze documents relevant to the research subject, providing the subject's perspective through written media and other documents provided by the subject or related parties.

4. RESULTS AND DISCUSSIONS

This research was carried out in Zone 1 of the Dieng Plateau, which includes Batu Pandang Ratapan Angin, Telaga Warna, Arjuna Temple, and Sikidang Crater. The Dieng Plateau area is located in two districts, namely Wonosobo and Banjarnegara districts. Based on data obtained from the Banjarnegara Tourism and Culture Office, the number of tourist visits to Dieng in 2022 will reach more than 1 million tourists. Sikidang Crater is a favorite destination for tourists, with more than half of the total tourists visiting this location. There were 619,596 tourists visiting Sikidang Crater during 2022. Data submitted by BPS Wonosobo Regency also recorded that as many as 1,389,657 tourists visited Wonosobo, including the Dieng area.

Researchers and the survey team made direct observations in the Zone 1 area of the Dieng Plateau and summarized the findings and made notes from this location. In terms of the quality of environmental cleanliness in Sikidang Crater, it was found that rubbish had not been managed properly, especially around the ditches which were found to be used as rubbish dumps either by visitors or by irresponsible individuals. This condition causes the appearance of unpleasant dirt around the gutter. Regardless of who is not responsible for disposing of the rubbish out of place, if it is found that there are sufficient cleaning staff, they should be able to immediately clean up the rubbish that is polluting the scene. From the results of a closer observation at the location, there were no signs prohibiting throwing rubbish out of place.



Figure 1. Some conditions of the ditch in Sikidang Crater
Source: Researcher Data, 2024

The survey team had difficulty finding toilets in Sikidang Crater because there were not enough toilets in the inner area of the crater area. In fact, if visitors have already entered the crater area, to get out again or at least to reach the toilet which is located outside the crater area takes quite a long time considering that the exit route is long and filled with visitors shopping or looking at the wares of the vendors. As a consequence, this condition will cause discomfort for visitors. Therefore, it is necessary to have sufficient toilets and improve better hygiene management in the area. Apart from that, the condition of the prayer room also looks less clean and has not received optimal maintenance. One of the reviewers on the Google Map of Sikidang Crater is named @fairytalesaid the same thing.

“....On the way home, the souvenir traders played it first. There were times when 5 of the rotating aisles didn't reach the ones that contained that trader. There is a prayer room in that area, but I think it's a bit dirty so I'm not sure if I want to use it. Then there's no toilet inside. The toilets are all outside and they are paid....”

Based on the results of interviews by researchers with several managers, traders and local tour guides in Sikidang Crater, information was obtained that toilets were provided by managers outside the crater area, specifically in the parking area.

In the Sikidang Crater area there is also a market as a center for souvenirs for tourists. Especially for traded goods including food and drinks in this area, prices tend to be found to be non-standard. The prices offered to prospective buyers vary as stated by the seller and the items being sold do not include price tags. This condition certainly creates discomfort for potential buyers. To overcome this problem, at least the management can organize or create cooperatives for local residents who want to sell so that they can be more organized and more comfortable for potential buyers.

Furthermore, researchers and the survey team also carried out observations and interviews in one of the Dieng Zone 1 areas, namely in Batu Pandang Ratapan Angin. Wailing Wind Stones are two large stones side by side and located on a hill around the location of the Dieng Plateau Theatre. This tourist destination is a strategic area to enjoy the beauty of Telaga Warna and Telaga Pengilon with a stunning backdrop like a perfect natural painting. The cleanliness of this area is quite optimal because at this location the researchers and survey team did not find any spots that looked very dirty. However, in this area there were piles of rubbish piled behind rocks so that if visitors walked around it would look unsightly. In this area there is also a prayer room and public toilets, but there are no officers on duty in formal uniforms. The presence of officers wearing uniforms should mean that visitors can easily recognize the officers and can also increase the authority of the officers if it turns out that the officers need

to reprimand visitors who are not orderly. In this area, the officers are also not prepared, especially at dangerous points, so that if they find tourists who need help, they will have difficulty getting help from official officers. In this area, there are several places where the level of security is very poor because there are no fences between ravines or cliffs, so it is possible that if tourists fall or slip because they are not careful, the consequences could be very fatal.



Figure 2. Photo spot conditions are less safe
Source: Researcher Data, 2024

According to Eko Budi Santoso, one of the visitors, the place is very good, but the management must also pay attention to access to existing spots.

“This is really good... Lake Warna can be seen from above... it's like 2 spots in 1... To manage it, I suggest maintaining the stability of the ladder because it's starting to crumble and patching it up is already dangerous.”

Apart from Sikidang Crater and Batu Ratapan Angin, researchers and the survey team also conducted observations and interviews in the Telaga Warna area. The name Telaga Warna really suits the beauty of the lake's colorful colors because of the unique phenomenon produced by nature, namely the lake water which turns colorful because sunlight hits the water in the lake which contains high sulfur. In the Telaga Warna area, cleanliness is quite optimal, toilets and other facilities such as gazebos are also clean, and are equipped with the necessary signs regarding the participation of visitors in maintaining cleanliness, it's just that in this area between the road and the lake there are no barriers or fences. so it is possible that tourists could fall into the lake if they are not careful.

Tabel 1. Operational Risk Indicators

No	Operational Risk	No	Operational Risk
1	Availability of Information	8	Environmental Hygiene
2	Information boards	9	Queue
3	Quality of Officers	10	Accessibility
4	Sufficient Number of Officers	11	Fast service
5	Toilet	12	Tourist Security
6	Parking lot		
7	Street Vendors		

Source: Researcher Observation Results

Explanation of the indicator findings above:

1. Availability of Information

Researchers were unable to find promotional materials such as leaflets or flyers that provided additional information about the area, including maps of the zones in the Dieng area and descriptions of interesting tourist attractions in the surrounding area. If you want to increase the development of this area as a superior tourist destination, managers must consider providing this promotional material as a guide for visitors while visiting this tourist area. The existence of this promotional material will at least provide benefits for visitors, allowing them to plan their visits more efficiently by obtaining information about available interesting spots.

2. Information boards

The information boards that researchers encountered were only in the Telaga Warna area, and the information listed was limited to information relating to tour routes for tourists renting Jeeps. This can happen due to a lack of attention from the management or government towards the development of tourist infrastructure.

3. Quality of Officers

The survey and research team also did not find any officers on standby at certain posts to provide information to visitors, especially in the Batu Pandang Ratapan Angin area. Therefore, it is recommended that officers on duty regularly receive regular training regarding improving friendliness and product knowledge, so as to increase visitor comfort. Likewise, in the Sikidang Crater and Telaga Warna areas, there are no officers on guard, especially in the crater area, so that if there are tourists who need help, there are no officers who are ready.

4. Sufficient Number of Officers

From the results of observations made by researchers and the survey team regarding the adequacy of officers in this area, it was found that it was still very minimal. Especially in the Batu Pandang Ratapan Angin area, researchers did not find officers guarding the parking lot, so some tourists had to park their own vehicles and had difficulty finding a parking space. Furthermore, in the toilet area there were no cleaning staff on duty, the researcher only saw the staff at the entrance ticket. Managers need to add more officers, especially at the information section and several tourist spots.

5. Toilet

Toilets are one of the facilities that must be available in tourist areas. In this area, toilets are already available, but the number still needs to be increased. For example, in the Sikidang Crater area, toilets are only available outside the tourist area or around the parking area. Furthermore, for the Batu Pandang Ratapan Angin tourist area, toilets are available but there are no cleaning staff on duty so the toilets don't seem clean. The management must provide special staff to maintain the cleanliness of the toilets so that tourists feel comfortable when using the facilities.

6. Parking lot

For parking facilities, researchers found that parking spaces were well available. However, from observations, visitors want a wider parking area and not too far from tourist attractions or tourist spots and there are also no officers to direct them when parking so that in general tourists park carelessly. Thus, it is necessary to manage the parking lot optimally.

7. Street vendors

In this tourist area, especially in Zone 1, the placement of street vendors is good. In every tourist area, a place has been provided for sword sellers. It's just that regarding prices, it was found that the prices at each trader were not uniform and it was also found that some traders did not include prices. Thus, good price transparency is needed so that tourists feel comfortable when shopping at traders in the area.

8. Environmental Hygiene

Environmental cleanliness in this area is quite good, only in a few spots there is still a buildup of rubbish, such as in the gutters in the Sikidang Crater area. Managers need to provide adequate trash bins and also need to group and manage waste well. In addition, signs and warnings need to be added so that visitors do not throw rubbish carelessly.

9. Queue

The queue to enter this area is quite neat, but attention needs to be paid to the queue capacity, because when this area is busy, tourists have to queue long to buy entrance tickets. Managers need to create innovations such as purchasing tickets online via the application, so that when tourists enter the tourist area they only scan the barcode which can be obtained from the application.

10. Accessibility

In terms of access to tourist attractions, the access is quite good, it's just that to get to the tourist spots, especially towards Batu Pandang Ratapan Angin, access to the top of the

road is quite steep. Even though stairs have been provided, there are several steps that are fragile and rusty. Management needs to replace and maintain stairs that are starting to become damaged so that tourist safety is better maintained.

11. Fast service

According to researchers, the existing services in this area are less responsive in serving them. For example, when you want to enter the spot area, officers are not always at the ticketing area so tourists have to wait quite a long time. For this reason, managers need to provide training related to service quality so that officers at this tourist attraction can serve tourists well.

12. Tourist Security

Based on the results of surveys in the field, the security of tourists in this area still needs to be improved. For example, at the Batu Pandang Ratapan Angin tourist attraction, several photo spots on the edge of the cliff do not have guardrails. Apart from that, there are several stairs that have become porous. Thus, it is necessary to have a guardrail between the spots in that place and it is also necessary to replace the steps to increase tourist safety.

5. CONCLUSION

Based on research in the Dieng Plateau area, several important things were found that need to be considered regarding operational risk management. Problems with the availability of information, adequate staff, cleanliness that needs to be improved, and visitor safety are some of the problems that arise. Recommendations include providing better information, increasing the number and quality of officers, keeping public facilities clean, and improving infrastructure for visitor safety. With these steps, it is hoped that tourists in the Dieng area can have a pleasant and even more memorable experience.

The connection with operational risk management is that the problems identified in the research can be considered operational risk events in the management of tourist destinations. For example, lack of information, poor hygiene, lack of security, and staff shortages can all be operational risks that affect the tourist experience and the overall operation of the tourist area. Therefore, effective operational risk management must be carried out by continuously identifying, evaluating and managing these risks in order to reduce their negative impact on tourism operations and increase the pleasant experience of visitors.

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