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Strengthening Indonesian Tourism Resilience Based on Tourism Operational Risk Management

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Abstract

Along with the rapid development of the tourism industry in Indonesia, the role of tourism risk management is becoming increasingly crucial. However, research on tourism risk management in general and tourism operational risk management in Indonesia has not been carried out much. The purpose of the study, which is also a novelty of this study, is to confirm the importance of tourism Operational Risk Management on the resilience of tourism destinations mediated by tourist satisfaction and tourist loyalty, particularly on several research objects and Indonesian tourism in general. In this article, the researcher presents a five series of studies conducted by researchers that focus on the influence of tourism operational risk management on satisfaction and loyalty. The research method used in general is the explanatory sequential design of mixed methods research. The five series of studies used in this article involve various research objects spread across several research locations to explore findings that can strengthen the validity and reliability of findings on one object in a wider area. Research samples come from domestic and foreign tourists and involve business owners, local communities, and relevant stakeholders who have met the criteria set by the researcher. These samples were generally taken using multi-stage sampling techniques. The data collection technique uses the Concurrent Triangulation Strategy regarding information convergence. The findings of five studies conducted found a positive influence of operational risk management performance on tourist satisfaction and loyalty. Value perceived by tourists represented by tourist satisfaction increases when tourist destination managers manage operational risk well. Normatively and based on the findings of previous studies, tourism resilience is built on the basis of tourist satisfaction and loyalty. Thus, strengthening operational risk management has the potential to increase Indonesian tourism's resilience.

Keywords: Tourism Resilience, Operational Risk Management, Tourism Risk Event Model, Tourist satisfaction, Tourist loyalty

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1. Introduction

Indonesia, which consists of more than 17,000 islands with a coastline of 108,000 km, is known as a country with enormous natural resource potential, with a diversity of flora and fauna, abundance of Panoramic Beauty, Cultural Richness and also unique local wisdom, making Indonesia as one of the most attractive tourist destinations in the world (Lesmana, Henky & Sugiarto, Sugiarto, 2021). Indonesia's abundant tourism resources, which have so far been able to become a magnet for tourists, if optimally utilised, will enable Indonesia to become one of the largest tourism powers in the world (Lesmana, Henky, et al., 2023; Sugiarto., et al., 2024a; Sugiarto., et al., 2024b). Recently, the tourism sector in Indonesia has become a new prima donna for national development and plays a strategic role in the national economy. Before being hit by the Covid-19 pandemic, Indonesia's tourism sector contributed 5.25% to the national GDP in 2018 and was the second largest contributor of foreign exchange, worth 229.50 trillion rupiah and absorbing a workforce of 12.7 million people (Bank Indonesia, 2020; Kementerian Hukum dan Hak Asasi Manusia Republik Indonesia, 2020). In the future, Indonesia's tourism sector is targeted to be a major contributor to the national economy as stated in the 4th National Medium-Term Development Plan 2020-2024, which establishes the tourism sector as the mainstay of competitive economic development and the mainstay of increasing economic added value. (Kemenparekraf dan Baparekraf. 2020a; Kemenparekraf dan Baparekraf, 2020b). Indonesia's extraordinary tourism potential must be enhanced by implementing reliable risk management that can strengthen the role of Indonesian tourism as well as the safety, security, and certainty of tourists and stakeholders. This study was conducted to confirm the importance of risk management in general and operational risk management in particular in the tourism industry towards tourist satisfaction and loyalty, which can then impact the resilience and sustainability of a tourism destination. Bong et al. (2019) classify tourism industry risks into Operational, Market, External, Regulatory, Reputation, Business, and Financial Risk. On this occasion, researchers focus on Operational Risk management, considering that from the various pillars of tourism risk, operational risk plays an important role because it has a direct impact on the quality of service to tourists (Bong et al, 2019; Sugiarto 2023a; Sugiarto, 2023b). The aim of this study, which is also a novelty of this study, is to confirm the importance of the role of Operational Risk Management towards tourist satisfaction and tourist loyalty, which will then affect the resilience of tourism destinations in particular and Indonesian tourism in general.

Bong et al (2019) formulated a risk typology, and Sugiarto (2023b) formulated a tourism risk event model. Both Bong et al. (2019) and Sugiarto (2023b) stated the importance of operational risk management in the tourism industry. However, neither had initially put forward either the dimensions or relevant indicators of operational risk management. To determine the significance of the role of operational risk management in the tourism industry, both the dimensions and indicators of operational risk are needed. Concerning operational risk management, Sugiarto (2023b) has also developed various tools that are used to detect operational risk events, identify the main causes of operational risk, detect aspects of services that require immediate improvement to improve performance that can answer tourist dissatisfaction, and to formulate a tourism business risk management strategy. To obtain both the dimensions, indicators, and capabilities of the various tools developed by Sugiarto (2023b), a series of studies are needed to

answer these needs. Thus, in addition to confirming the importance of risk management in general and operational risk management in particular in the tourism industry, this study also aims to present the results obtained from a series of studies that have been conducted by researchers aimed at developing dimensions and indicators of operational risk management and proving the synergy capabilities of various detection devices that have been created by Sugiarto (2023b).

Recently, Indonesian tourism has experienced significant development. Data from the Travel and Tourism Development Index produced by the World Economic Forum (2024) shows that Indonesia's tourism index has increased from position 32 in 2023 to position 22 in 2024, as seen in Table 1.

Table 1. Travel and Tourism Development Index 2024

No	Country	World Rank	Score
1	Singapore	13	4.76
2	Indonesia	22	4.46
3	Malaysia	35	4.28
4	Thailand	47	4.12
5	Vietnamese	59	3.96
6	Philippines	69	3.84
7	Cambodia	86	3.57
8	Laos	91	3.48

Source: World Economic Forum (2024)

Table 1 shows that at the ASEAN level in 2024, Indonesia is ranked 2 after Singapore and above other ASEAN countries, while at the world level, Indonesia is ranked 22. This indicates that, both at the world and ASEAN levels, Indonesia has been able to compete and become a tourist destination to be reckoned with. This information suggests that there are opportunities to make Indonesian tourism and the tourism business in Indonesia one of the mainstays of Indonesia's progress. The characteristics of Indonesian tourism, with its uniqueness, open up wide opportunities if managed well to maximise the welfare of its managers directly, the surrounding community and stakeholders while also directly or indirectly having an impact on the surrounding environment and the resilience of Indonesian tourism (Kiswanto, Amin; Sugiarto; Hendratono, Tonny, 2024; Diena, M, Lemy; et al., 2024).

Apart from Indonesia's competitive advantages in its abundance of natural charm and local wisdom, Indonesia is one of the countries that is prone to disasters because of its geographical location on the Pacific Ring of Fire. Many areas in Indonesia are vulnerable to natural disasters such as earthquakes, tsunamis, floods, volcanic eruptions and dry seasons, so business managers and stakeholders in the tourism industry must be prepared to face the risks that arise (Garg, A, 2015; Lesmana, Henky, et al, 2022). Stakeholders' preparedness for risk is becoming increasingly necessary considering the dynamics of tourism ecosystem development, rapid technological advances, increasing Volatility, Uncertainty, Complexity, and Ambiguity, which makes the tourism industry face different risk challenges from time to time.

In the tourism industry, there are generally three aspects that tourists highly regard: safety, security and certainty (Sugiarto & Herawan, Tutut, 2022). In addition to these three aspects, tourists will consider other aspects according to the interests of each tourist, such as the comfort aspect. Thus, public perception regarding the quality of security, safety, certainty and comfort aspects is very important to be considered by business organisers in the tourism industry. For this reason, good risk management is needed, which allows the formulation and implementation of effective and efficient risk management strategies and their implementation tools to maintain the strength of the tourist destination's reputation and increase tourist satisfaction (Budhijono, Fongnawati, et al., 2023b). Risk management in the context of tourism refers to the planning and implementation of processes aimed at managing the adverse impacts of risks, crises or disasters/catastrophes on tourism.

The resilience and sustainability of a tourism destination are greatly influenced by its ability to adapt to changing market conditions, use resources efficiently, and provide innovative planning and development strategies on risk management (Ural, Mert, 2016; Dena, M, Lemy; et al, 2024). Considering the increasing importance of tourist awareness of safety, security and certainty, tourism businesses should have risk management to prevent a risk from occurring and/or reduce its impact if the risk has occurred (Sugiarto & Herawan, Tutut, 2022; Santi Palupi & Sugiarto, 2014).

Although not all risks can be prevented completely, with good risk management, it is expected that the impact of the risk can be reduced or at least the fatality rate can be minimised. In addition to the potential for disasters due to geographical position, the tourism industry is generally labour-intensive, which places great emphasis on service quality, making it very vulnerable to risk. In this case, risks can occur at every stage of service and affect anyone faced by all types of tangible and intangible assets. The increasing contribution of the tourism sector in Indonesia makes tourism risk management even more important. After all, the sustainability of the tourism industry is very dependent on tourist satisfaction. Thus, awareness of the importance of risk management is very important for the resilience and sustainability of the tourism business in Indonesia (Paulina, Lo & Sugiarto, 2021; Paulina, Lo., et al., 2023a).

The resilience of a tourism destination will determine the resilience of the wider community, such as the destination, region, area and ultimately the country (Paulina, Lo., et al., 2023b). The main problem faced by the tourism sector is its vulnerability to various changes, both incremental changes such as changes in market tastes, technology, supply chains, competition and sudden disruptions such as disasters (Ritchie, Brent, W. & Jiang, 2019; Ritchie, Brent, W. & Jiang, 2021). Previous researchers have emphasised the importance of resilience being needed overtime to cope with disruptions and increase competitiveness and sustainability (Paulina, Lo & Sugiarto, 2021; Paulina, Lo., et al., 2023a). Normatively, excellent tourism risk management will increase the resilience of Indonesian tourism in facing competition and disruptions, both incremental and sudden, due to disasters. Along with the rapid development of the tourism industry in Indonesia, the role of tourism risk management is becoming increasingly crucial; however, research related to tourism risk management in Indonesia has not been carried out much (Kiswanto, Amin; et al, 2023; Sugiarto, et al., 2024b).

So far, the issue of risk management has become increasingly prevalent, especially in the financial and banking industries. In the tourism industry, it is realised that risk management plays an important role in mitigating various undesirable consequences.

However, so far, there has been no standard model for tourism risk management that applies generally. By adopting the essence of the rules of risk management that apply in the financial and banking industries, researchers have developed the concept of tourism risk management (Bong et al., 2019; Sugiarto, 2023b). Researchers have even formulated a tourism risk event model (Sugiarto, 2023b). The efforts that researchers have made so far have thus filled the gap in the literature regarding tourism risk management, especially in Indonesia.

The normative contribution formulated by the researcher requires confirmation of the significance of its validity in the field so that in the next stage, the researcher will gradually develop relevant indicators in relation to the various risk pillars mentioned in the tourism risk event model, which in this case states the novelty in tourism risk management research. In the early stages, indicators of operational risk management and various detection tools were gradually developed. To obtain confirmation of its validity, both indicators and detection devices need to be tested repeatedly in different places, thus at least being useful for seeing the generalisation of its validity. Thus, a series of studies need to be conducted to confirm the formulated innovation supported by empirical data. In the future, indicators will also be developed for various other risk pillars besides the operational risk management pillar.

The contribution of this research to tourism science is the formulation of dimensions and/or indicators of operational risk management that are considered important by tourists and evaluating how capable these operational risk management indicators are in reflecting the performance of operational risk management in increasing tourist satisfaction and loyalty. The applied contribution of this research is input to stakeholders based on empirical data in relation to the needs of policy formulation and in designing operational practices. In addition to the indicators developed, this research also contributes to revealing the ability of various detection tools tested in this series of studies to trace various risk events that significantly impact tourist satisfaction and how these detection tools synergise in improving operational risk management performance.

2. Literature Review

To manage risk in tourism, tourism business managers must understand the terminology related to Risk Events and Risk loss (Sugiarto, 2023b; Bong et al., 2019; Santi Palupi & Sugiarto, 2014). A risk event is a variety of events that increase the potential for bad results to occur, resulting in losses. Tourism business risks are triggered by risk events. Risk losses are losses that occur as a direct or indirect impact of risk events. Risk loss can be financial or non-financial. Even though the losses incurred do not always lead to financial losses, the various types of losses that arise need to be converted into financial losses to quantify the amount of losses suffered (Sugiarto, 2023a).

Bong et al. (2019) classify tourism industry risks into Operational Risk, Market Risk, External Risk, Regulatory Risk, Reputational Risk, Business Risk and Financial Risk. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems. Market risk is defined as the risk of losses in on- and off-balance sheet positions arising from movements in market prices and due to an imbalance between supply and demand.

External risk is the risk associated with an emerging event that is around direct control. Regulatory risk is the risk arising from yield irregularities because the company does not comply with the prevailing rules and norms. Reputational risk is the risk of potential damage to a firm resulting from negative public opinion. Business risk is the risk associated with the competitive position of the tourism business and the prospect of the tourism business prospering in a changing market. Financial risk is an umbrella for credit, liquidity, and funding risks.

To manage risk properly and know the impact of each risk that arises, it is also necessary to know the correlation between one and other risk classifications. Sugiarto (2023b) formulated the Tourism Risk Event Model based on the main triggers of risk events and risk typology. In the Tourism Risk Event Model, the risk triggers from the risk groups of the main causes in the tourism industry can be further traced, which, in essence, the triggers originate from either one Risk Event or the interaction of various Risk Events with risk groups in the risk typology.

In the tourism industry, tourist satisfaction is largely determined by the satisfaction they feel when they enjoy the services when they consume tourism services. Thus, operational risk management is very important in the tourism business. Operational risk encompasses risks that arise due to inadequate internal processes, deficiencies in the quantity and quality of employees (human resources), software systems and hardware facilities supporting a business organisation in the tourism industry. Operational risk arises due to various internal factors that 'should' be managed in a business organiser in the tourism industry (Bong et al., 2019; Kiswanto, Amin et al., 2023; Sugiarto, 2023a; 2023b).

Inadequate operational risk management can have an impact on the emergence of various other risks. Bad operational risk usually impacts reputation risk; operational risk can also give rise to legal risk, increased financial risk caused by a decrease in income earned, etc. With the increase in operational risk, tourist satisfaction and loyalty decrease. Furthermore, tourists are reluctant to revisit and/or to recommend, thus impacting the decline in market demand. From the perspective of tourism business managers, the impact is a decrease in cash inflow, which impacts financial risk and will reduce the continuity of their business and the resilience of the tourism business they manage (Sugiarto & Herawan, Tutut, 2022).

In order for operational risk management to be carried out effectively and efficiently, tourism business managers or tourism destination managers should be able to identify sources of risk with significant impacts (Sugiarto, 2023b). Identification of risk events and related operational risk management is very important because the perception of tourist destination risk from tourists directly affects tourist satisfaction and purchase intention (Sugiarto & Herawan, Tutut, 2022; Kiswanto, Amin, et al., 2022; Eshun, G., & Tichaawa, T. M., 2020). For this purpose, various tools are needed that enable tourism business managers to trace various risk events, especially those that have a significant impact on tourists and based on the findings obtained, tourism business managers or tourist destination

managers then design various relevant risk management strategies and implement operational risk management effectively and efficiently so that they can maintain and even increase visitor satisfaction (Sugiarto, 2023b).

Relationship between Operational Risk Management and Resilience in the Tourism Sector

The importance of resilience for tourism organisations facing crises and disasters is undeniable (Ritchie, B. W. & Jiang, 2021), yet little is known about how these tourism organisations become resilient. Resilience is needed not only to cope with disruptions but also to continuously improve competitiveness and sustainability (Brown N. A. et al., 2017; Brown N. A. et al., 2018; Brown, N. A. et al., 2019; Espiner et al., 2017; John-Eke et al., 2020; Tibay et al., 2018).

Jiang et al. (2019; 2021a; 2021b) define organisational resilience as the ability of an organisation to survive and withstand changes in the external environment (preparation), reduce and overcome the negative effects caused by the changes (response), and bounce back to a new state for better future performance (recovery). Organisational resilience is needed at all times (before, during and after a crisis) and in terms of the process has two constructs, namely planned resilience and adaptive or reactive resilience (Jiang et al., 2019; Lee, A. V. et al., 2013; Prayag et al., 2018; Sobaih et al., 2021).

The application of this concept in tourism has implications for the ability of stakeholders as the equivalent of the organisation in the concept proposed by Jiang et al. (Paulina, Lo., et al., 2023a; Paulina, Lo., et al., 2023b). Tourism destination resilience is the ability of a tourism destination to survive, recover and adapt to changes and crises such as a pandemic. Destinations that have strong resilience can better face challenges, maintain their tourism appeal, and restore the tourism industry more effectively, especially when supported by the satisfaction of tourists when they enjoy the tourist destination (Young et al., 2015; Dela Safitri et al., 2023).

Resilient tourism is tourism that strives for sustainability by paying attention to the balance between the economy, socio-culture and environment while still meeting the needs of visitors, industry and local communities (Diena, M, Lemy et al., 2024; Paulina Lo., et al., 2023a). Visitors' needs will be met if visitors are satisfied when they enjoy the tourist destination, especially if they develop loyalty that builds repeat demand in the future, either represented by the desire to revisit or at least to recommend positive things related to the tourist destination to other parties (Almeida-Santana, A., & Moreno-Gil, S., 2018; Sugiarto & Herawan, Tutut, 2022). At least tourism resilience is built on the basis of tourist satisfaction and loyalty (Dela Safitri., et al., 2023; Paulina, Lo., et al., 2023b; Abrahám, J., & Lžičar, P., 2018). The concept of resilient tourism is very important to minimise the negative impacts of tourism (Budhijono, Fongnawati, et al., 2023b).

To realise tourism resilience, a long-term vision is needed with a strong commitment to ensuring that the existence of resilient tourism is not only enjoyed by the current generation but can also be sustainable for every future generation by paying attention to the implementation of the four principles including destination governance, economic benefits for the community, cultural benefits and preservation, environmental benefits and preservation (Budhijono, Fongnawati, et al., 2023a; 2023b).

In order to achieve tourism resilience, tourism must be able to contribute significantly to improving the community's economy. Developing tourism must start with an awareness of the values of community needs, prepare plans that emphasise the importance of participation and provide opportunities for local communities, involve the community and highlight tourist attractions such as uniqueness, authenticity, cultural diversity and rarity that have the potential to influence the interest of tourists to visit (Kiswanto, Amin; et al., 2023; 2024; Accastello, C.; Blanc, S., & Brun, F, 2019).

To achieve resilient tourism, according to UNWTO, it is necessary to optimally utilise environmental resources, which are key elements in tourism development, maintain important ecological processes, and help preserve natural heritage and biodiversity (UNWTO, 2021a; UNWTO, 2021b) in line with the concept of community-based tourism. Presenting and maintaining resilience requires mutually beneficial existence and involvement from tourism business managers and tourists. The tourism business managers are on the supply side, while tourists are on the demand side (Lesmana, Henky, et al., 2022). From the demand side, if tourists are satisfied, it will increase loyalty and open up opportunities for them to come back and/or recommend positive things to others, thereby increasing the chances of resilience from the tourism business. Conversely, if risk management performance is poor and tourists are not satisfied, their chances of becoming loyal will decrease and thus will reduce the resilience of the tourist destination. From the supply side, if the owner (business manager) and tourist destination gain profit from the tourism business they run, then there is an opportunity for their business to be more resilient and sustainable.

On the other hand, if the manager experiences losses in managing their business, they tend not to be able to continue their business even though tourists or users are satisfied with the services they received on their previous visit and express their commitment to revisit. Thus, a significant positive relationship is found between operational risk management performance, satisfaction, loyalty and resilience (Lesmana, Henky, et al., 2023). Risk management benefits two parties, namely the business manager and the tourists, who are users of tourism products and services. For the manager, risk management increases the value obtained in three ways: 1. increase the benefits obtained at the same risk level, 2. at the same benefit, the risk experienced is reduced so that the result of the benefit to the risk value increases, 3. Increase benefits and simultaneously reduce risks, thus, increasing value is obtained on the side of the manager or owner of the tourism business. For tourists as users, risk management also increases the perceived value in three ways as stated by the manager, but in this case the benefits felt by tourists represent the benefits they obtain (Sugiarto, 2023b).

3. Research Methods

In this article, the researcher presents a series of five studies that have been conducted by researchers and teams that focus on the influence of tourism operational risk management on satisfaction and loyalty. The findings from the series of studies are then used to confirm the role of operational risk management on satisfaction and loyalty. The series of studies that have been conducted began in the new era of the COVID-19 pandemic. The research method used in general, is an explanatory sequential design of mixed methods research (Sugiarto, 2022). The studies used in this article involve various research objects spread across several research locations with the aim of exploring information and findings that can complement each other, with the aim of strengthening the validity and reliability of findings on one object to

a wider area. Research samples come from domestic and foreign tourists who have met the criteria set by the researcher and in general, were taken using a multi-stage sampling technique, with an emphasis on snowball sampling and purposive sampling techniques (Sugiarto et al., 2023b; Sugiarto et al., 2023c).

This study also involved business owners, local communities and relevant stakeholders. The data collection technique uses the Concurrent Triangulation Strategy with the consideration of obtaining more comprehensive information and strengthening information convergence. Although this study was conducted over a fairly long period of time, in essence this study uses cross-section data. For data that has gone through the Data Cleansing, Data analysis was performed using various tools for each study, including the Structural Equation Model with Smart PLS 3.0 and various risk detection tools, including Frequency Table, Bar chart, Pareto Diagram, Cause and Effect, Importance Performance Analysis, and Difference in expectations and perceptions test. These analysis tools were used to reveal the synergy of various detection tools in tracing risk events that significantly impact tourists in priority order (Sugiarto, 2023b).

4. Results and Discussion

The findings of the five series of studies confirmed the importance of operational risk management in tourist satisfaction and loyalty, which will then affect the resilience of tourism destinations in particular and Indonesian tourism in general. Various dimensions and indicators of operational risk management, along with instruments developed for detecting quality problems, revealing the causes of quality problems, and tools that are useful for enabling tourism business managers to make predictions regarding the context of quality control to mitigate risks, are also proven to function as expected. The research findings also prove the synergy capabilities of various detection devices that researchers have developed. The various developments carried out in each series of studies from study 1 to study 5 provide an overview of the stages developed by researchers in each study.

Study 1

The first study is entitled "The Influence of Operational Risk Management on Intention to Revisit and Intention to Recommend by Using satisfaction as a Mediating Variable: A Study of Homestay Users in Dieng Plateau, Central Java, Indonesia" (Sugiarto & Herawan, Tutut, 2022).

This study is the first of five series of studies conducted by researchers to confirm the importance of operational risk management in the tourism industry towards tourist satisfaction and loyalty, which can impact a tourism destination's resilience and sustainability. Because operational risk management is a latent variable, indicators of operational risk are needed. As the first series of five studies conducted, this study develops indicators of operational risk management. This study was conducted during the new normal period of the COVID-19 pandemic. During that period, tourists in general and homestay users in particular paid close attention to safety and security because, at that time, the effects of the pandemic were still very much felt. Thus, operational risk management plays an important role in reducing concerns and mitigating the risks of homestay users. In connection with the conditions faced in this study, operational risk management indicators were formulated that focused on aspects of cleanliness,

health facilities, and homestay security levels, which are the main concerns of homestay users. Developing these indicators is one of the novelties of implementing this study. The efforts made in this series 1 study fit into the broader research agenda of the paper to confirm the role of operational risk management and the accompanying reflective indicators and provide more details on the significance of the findings.

The first study aims to evaluate the effect of operational risk management on Intention to Revisit and Intention to Recommend by Using Satisfaction as a Mediating Variable: A Study of Homestay Users in Dieng Plateau, Central Java, Indonesia. The Dieng Plateau, located in Central Java, Indonesia, which has the predicate of being a land above clouds with an altitude of 1600 - 2100 meters above sea level, is a leading tourist destination in Indonesia. The Dieng Plateau is a tourist destination rich in remnants of local wisdom from ancient times that are a magnet for both domestic and foreign tourists. In the Dieng Plateau, the authenticity of several cultural heritages that have not been eroded by human hands and are preserved by nature and other magnets are this tourist destination's competitive advantages (Lesmana, Henky & Sugiarto, 2021).

In the Dieng area, there are many homestays managed by the local community based on community-based tourism. The problems that arise in connection with the operation of these homestays are related to the location of the Dieng plateau where these homestays operate. The Dieng Plateau is surrounded by hills and mountains, which makes the Dieng Valley located on the plateau lower than the surrounding hills and mountains. The concave contour lowers the air temperature in Dieng at night compared to the surrounding peaks because the night wind is directed downwards. During the dry season, the temperature in Dieng can reach minus 0 degrees Celsius. When the peak of the dry season arrives, every morning, tourists can find ice crystals stuck to the grass, on the trees and even in the tents of tourists who are camping. The weather conditions and air temperature in Dieng cause their own problems for blankets, sheets, and pillows in the homestay bedrooms because they make them feel damp when held and used, making them uncomfortable for homestay users, besides also making the walls of the homestay rooms look mouldy, bulging and tarnishing the neatness of the walls of the room. Likewise, the water in Dieng is cold like ice, making tourists who bathe feel cold if not provided with warm water for bathing. This kind of condition is often found in accommodations in highland areas such as the Dieng Plateau (Ramanpong, et al., 2021).

This study was conducted during the new normal period of the COVID-19 pandemic. During that period, tourists in general and homestay users in particular paid close attention to safety and security because, at that time, the effects of the pandemic were still very much felt. Thus, risk management in general and operational risk management in particular play an important role in reducing concerns and mitigating the risks of homestay users. In this study, researchers evaluated the impact of operational risk management on the intention to revisit and the intention to recommend homestay users using satisfaction as a mediating variable. This study used 198 respondents who had had repeated experiences of staying at homestays operating in the Dieng Plateau. The sample for this study was taken using a multi-stage sampling technique. The implementation of the study used an explanatory sequential design which is included in mixed methods research. Data was analysed using the Structural Equation Model with Smart PLS 3.0. The study's results found that operational risk management had a significant

positive effect on homestay user satisfaction. Satisfaction has a significant positive effect on the intention to revisit and on the intention to recommend homestay users. Furthermore, from the support of empirical data, it is also found that satisfaction has a significant positive role as a mediating variable of operational risk management on the intention to revisit and the intention to recommend homestay users. The study findings found that when homestay managers can prepare good operational risk management, it can certainly provide satisfaction to homestay users. Ultimately, homestay users will show loyalty, which is stated in more detail in the intention to revisit and the intention to recommend.

Study 2

The second research is entitled "The influence of operational risk management on tourist loyalty through satisfaction at the Wukirsari Yogyakarta Tourism Village Homestay" (Kiswanto, Amin, et al., 2024).

From the results of study series 1, it was found that operational risk management plays a significant positive role directly on satisfaction and plays a significant positive role on tourist loyalty mediated by satisfaction. It was also found that the indicators developed in relation to operational risk management are proven to meet the validity and reliability criteria; thus, they are reflective indicators of operational risk management. Operational risk management indicators used in Study 1 are limited to indicators related to cleanliness, security, and safety, even though many other operational risk management indicators have not been studied in this study. In the suggestion section of Study 1, it is stated that the exploration of other operational risk management indicators opens up opportunities for future research to be carried out. Operational Risk Management indicators other than those used in this study can be explored for future research. This second study further develops the indicators that have been developed in study 1, which originally used three indicators to use seven indicators, namely the level of tourist security, reliability of security services, safety standards of transportation modes, efforts to mitigate natural disasters, efforts to reduce the impact of terrorist attacks, risk mitigation against animal attacks and risk mitigation against poisonous plants. The development of these indicators is the novelty of this second study. In addition, to confirm the validity of the role of operational risk management on satisfaction and loyalty, research needs to be conducted in the lowland area to compare the first study conducted in the highlands.

To strengthen the confirmation of its validity, indicators developed in relation to operational risk management need to be tested repeatedly in different places, thus at least being useful for seeing the generalisation of its validity. Thus, a series of studies need to be conducted. In this second study, research has also begun on the ability of one of the relevant risk detection devices to reveal aspects of service that need to be considered and maintained or even improved in order to increase tourist satisfaction using Importance Performance Analysis. Using the Cartesian diagram tool can detect which aspects need to be improved immediately, which can then provide input to tourism business managers in developing effective and efficient strategies. The efforts made in this series study 2 fits into the broader research agenda of the paper to confirm the role of operational risk management and the accompanying reflective indicators and more detail on the significance of the findings.

This second study was conducted in Wukirsari Tourism Village, Bantul Yogyakarta, Indonesia. (Kiswantoro, Amin, et al, 2024). This study complements the first study related to operational risk management of homestays, which was previously conducted in the Dieng Plateau. If the object of the first study was homestays operating in the highlands, then the homestays that are the object of this study operate in the lowlands. This study aims to evaluate the effect of operational risk management on tourist loyalty through tourist satisfaction in the homestay of the Wukirsari Yogyakarta tourist village.

Wukirsari is one of the cultural tourism village areas in Bantul Regency, Yogyakarta, Indonesia, which has focused on the development of Edu-Tourism and Ecotourism since 2007. The tourist attractions available in the Wukirsari Village area include cultural and educational tourism, learning batik in the Giriloyo Area, nature tourism in the coastal area of the Opak River, religious tourism in the Tomb of the Pajimatan Kings and the Tomb of Sunan Giriloyo, economic and cultural tourism in the Sor Jati Traditional Market Area, and Embung tourism made in the form of Wayang Gunungan.

In addition, Dusun Pucung in the Wukirsari area is focused on developing bird-based edu-tourism, as well as maximising the potential of 'wayang tatah sungging' crafts. Tourists who visit and stay in Wukirsari Tourism Village can enjoy various attractions available and use the existing homestays. The homestay in Wukirsari Tourism Village won the ASEAN Award for Adiluhung Homestay in 2016, and Sungsang Homestay won first place at the Regency Level in 2021. With the achievements obtained, the homestay manager has provided good service to tourists who stay; however, operational risk management has not been fully considered. When the environmental conditions around the homestay cannot meet the expectations of tourists as users, tourist disappointment will arise and cause a bad reputation (Sugiarto & Herawan, Tutut, 2022). This condition in turn, triggers the emergence of business risks and strategic risks for the survival of homestays. Given that culture and the richness of local wisdom are aspects that are emphasised, strengthening risk management, especially operational risks, will normatively mitigate risks and increase the satisfaction of homestay users (Bong Soeseno, et al., 2019; Paulina, Lo & Sugiarto, 2021; Sugiarto, 2023a; Sugiarto, 2023b).

With the increasing interest in homestays, risk management is needed to prevent disasters because disasters are the highest risk if they are not managed properly (Bong). Thus, a risk management model is needed in homestays that can reduce or overcome the impact of risks that may arise in the business and for the sustainability of the homestay. So far, research related to homestay risk management has not been found much. Articles that discuss homestays discuss more about how the homestay management system works (Pradana, G. Y. K., & Arcana, K. T. P. (2020).

The research conducted by Sugiarto & Herawan, Tutut (2022) is limited to operational risk management with three indicators: cleanliness and sanitation, health facilities, and homestay security level. As a novelty of this study, the researchers developed operational risk management indicators from Sugiarto and Herawan, Tutut (2022) using seven indicators, namely the level of tourist security, reliability of security services, transportation mode safety standards, efforts to mitigate natural disasters, efforts to reduce the impact of terrorist attacks, risk mitigation against animal attacks and risk mitigation against poisonous plants.

This study was conducted during the new normal period after the Covid-19 pandemic. The objects of research in this study were homestay users operating in Wukirsari Tourism Village, Bantul Yogyakarta, Indonesia, who had experience staying at homestays operating in Wukirsari Tourism Village. The study involved 175 research participants and respondents who met the research criteria. Sampling using multi-stage sampling techniques emphasised the use of snowball sampling and purposive sampling techniques. The data collection technique used triangulation techniques. The study was conducted using mixed methods with a typology of explanatory sequential design research methods. Data analysis using the Structural Equation Model with Smart PLS 3.0.

Strengthening the findings of quantitative research is obtained from the results of in-depth interviews with homestay managers and owners and research respondents, as well as by using Importance Performance Analysis. In this study, three variables were used, namely Operational Risk Management, Satisfaction, and Loyalty. Operational risk management has a positive and significant influence on homestay visitor satisfaction. Efforts made by homestay managers in managing operational risks, such as security around the homestay, reliability of security services, efforts to minimise the impact of natural disasters, efforts to minimise the impact of terrorist attacks, efforts to minimise the impact of animal attacks, and efforts to minimise the impact of poisonous plants, have a positive impact on user satisfaction. Homestay user satisfaction has a positive and significant influence on loyalty. Performance in satisfying homestay users increases the intention of homestay users to return and recommend the homestay to others (Kiswantoro, Amin; Sugiarto; Hendratono, Tonny, 2024).

Importance Performance Analysis is also used to analyse risk management, satisfaction, and loyalty more deeply. In this analysis, some indicators need to be considered and maintained by the homestay. Four priorities that need to be considered by the homestay include the yard, reliability of security services, efforts to minimise the impact of natural disasters, and efforts to minimise the impact of animal attacks. Eight things that need to be maintained by the homestay because they are considered important by visitors include unique bedrooms, disabled-friendly toilets, cleanliness and comfort, the beauty of the surrounding environment, attractive homestay layout, friendly homestay owner interactions, and security around the homestay. Furthermore, there are five facilities or services that are low priority for visitors, namely the kitchen, typical cuisine, typical services, efforts to minimise the impact of terrorist attacks, and efforts to minimise the impact of poisonous plants. Meanwhile, there are three facilities that visitors consider excessive, namely the veranda, living room, and family room. Although the homestay manager provides these facilities, visitors do not consider them important. Thus, homestay managers need to pay attention to aspects of operational risk management, visitor satisfaction, and loyalty to improve service quality and retain loyal visitors.

Study 3

The third study is entitled "Evaluation of the Performance of Cibereum Waterfall Management based on the Sapta Pesona (The Seven Charms) indicators" (Budhijono, Fongnawati, et al., 2023b).

Study 3 is a continuation of the two previous studies. The two previous studies found that operational risk management has a significant positive effect on satisfaction directly and on loyalty mediated by satisfaction. The operational risk management indicators developed by researchers in the two previous normative-

based studies have proven to be valid and reliable. This third study aimed to develop the dimensions and indicators of operational risk management resulting from the two previous studies. In this third study, an exploration of the dimensions of operational risk management was carried out based on the concept of Sapta Pesona Wisata, which is a concept of values outlined by the Indonesian Minister of Tourism, Post & Telecommunications, which is the essence of tourism development in Indonesia.

'Sapta Pesona Wisata' is an elaboration of the concept of tourism awareness related to the support and role of the community, which in this case acts as the host, in order to create a safe and conducive environment and atmosphere in order to be able to grow and develop the tourism industry, namely by realising seven main dimensions, including safety, order, clean, cool, beautiful, friendly, to elements of memories. These seven main dimensions are directly related to operational risk management. Sapta Pesona Wisata is basically a condition or atmosphere that must be realised in an effort to attract tourists so that tourists are interested in visiting an area or region in Indonesia (Decree of the Minister of Tourism, Post & Telecommunication Number.5 / UM.209 / MPPT89). The seven dimensions in Sapta Pesona Wisata are not technically equipped with indicators for each dimension explicitly, so for its application, it is necessary to describe it in the form of relevant indicators so that it can be used as a reference for improving the quality of tourism products that are useful for improving governance. In this 3rd study, indicators from the seven dimensions of Sapta Pesona were developed through literature searches, focus group discussions, deep interviews with research participants, key informants and the involvement of resource persons.

The novelty of this third study is that it formulates indicators from the dimensions of Sapta Pesona. It is expected that from the findings of this study, indicators of the seven dimensions of Sapta Pesona will be obtained, which are indicators of operational risk management based on the provisions of the Indonesian Minister of Tourism, Post & Telecommunications. Furthermore, the findings of this study can be integrated with the findings of the two previous studies to improve the comprehensiveness of operational risk management indicators. The efforts made in this series study 3 fits into the broader research agenda of the paper to confirm the role of operational risk management and the accompanying reflective indicators and more detail on the significance of the findings. In order for the generalisation of the findings to be more solid, the 3rd study was conducted in a different place and on a different research object from the two previous research objects.

The third study was conducted at Curug Cibereum which is located in the Gede Pangrango National Park area, West Java, Indonesia (Budhijono, Fongnawati, et al., 2023b). This study was conducted in connection with the increasingly strategic role of the tourism industry in the development of the Indonesian economy. In Indonesia, it is recorded that Agrotourism has the potential to significantly contribute to advancing Indonesian tourism. The potential for Indonesian agrotourism is very big because the wealth and diversity of agriculture, fisheries, plantations, livestock, and forestry supports it. Curug Cibereum is one of the agrotourism in Indonesia that is popular in the Puncak area, West Java. The purpose of this study is to evaluate the governance of Curug Cibereum, which is one of the risk management tools based on the Sapta Pesona (The Seven Charms) performance indicators with the novelty of the research is to formulate the Sapta Pesona Curug Cibereum indicators.

This study uses a mixed research method QUAN+qual. Data were taken using multi-stage sampling with the Concurrent Triangulation Strategy, involving 560 research respondents and 16 informants. Using Performance–importance analysis, 11 Sapta Pesona indicators were found that needed to be improved immediately. The performance of the Safe, Memorable, Friendly and Clean elements of Sapta Pesona must be further improved to meet the needs of tourists.

The results of the study found that of the seven governance functions in the Cibereum Waterfall Tourism Area, the functions that still need attention to improve performance are the supervisory functions (officer sensitivity to visitor difficulties, responsive service, helpful service), Managerial (manager innovation, workforce), Compliance (polyclinic, on-call doctor, Toilet, information post, parking lot) and Monitoring (promotional information). In this study, the evaluation of governance performance at Curug Cibereum is based on an assessment from the perspective of tourists. To obtain a more complete evaluation, further research can be conducted that involves evaluation from management to obtain a picture of complementary governance performance, which can thus provide more comprehensive input in improving governance at Curug Cibereum.

Study 4

The fourth study entitled "Identification of priorities for improving the performance of operational risk events at Cibodas Botanical Gardens based on Operational Risk Management Detection Device" (Sugiarto, et al., 2023a).

In order for operational risk management to be carried out effectively and efficiently, tourism business managers or tourism destination managers should be able to identify sources of risk with significant impacts (Sugiarto, 2023b). Identification of risk events and related operational risk management is very important because the perception of tourist destination risk from tourists directly affects tourist satisfaction and purchase intention in line with the findings in the previous three research series (Sugiarto & Herawan, Tutut. (2022); Kiswanto, Amin, et al., 2022; Eshun, G., & Tichaawa, T. M., 2020).

For this purpose, various tools are needed that enable tourism business managers to trace various risk events, especially those that have a significant impact on tourists and based on the findings obtained, tourism business managers or tourist destination managers then design various relevant risk management strategies and implement operational risk management effectively and efficiently so that they can maintain and even increase visitor satisfaction (Sugiarto, 2023a; Sugiarto, 2023b). In the third research series, one of the relevant detection tools has been developed using importance-performance analysis. In order to achieve more comprehensive performance improvements, various other tools must be developed that can support each other.

The purpose of this fourth study, which is also a novelty of this study, is to formulate various tools that are useful in identifying various risk events as input for tourism business managers or tourist destination managers to maintain and even improve the quality of operational services to tourists that can create consumer satisfaction and consumer loyalty (Lesmana, Henky & Sugiarto, 2021; Lesmana, Henky, et al., 2022; Lesmana, Henky, et al, 2023). The efforts made in this series study 4 fit into the broader research agenda of the paper to confirm the role of operational risk

management and the accompanying reflective indicators and provide more details on the significance of the findings. In order for the generalisation of the findings to be more solid, the 4th study was conducted in a different place and on a different study object from the three previous study objects.

The fourth study was conducted at the Cibodas Botanical Gardens, which is one of the famous agrotourism areas in the Puncak area, West Java (Sugiarto, et al., 2023a). Along with the rapid development of the tourism sector in the country, Indonesian agro tourism with its abundant heterogeneous characteristics can play a significant role in supporting and accelerating the development of the tourism sector in Indonesia if it is managed optimally based on effective strategic planning (Budhijono, Fongnawati, et al., 2023a; Budhijono, Fongnawati, et al., 2023b; Paulina, Lo & Sugiarto, 2021; Paulina, Lo, et al., 2023a; Paulina, Lo, et al. 2023b).

Cibodas Botanical Gardens located on the slopes of Mount Gede, Cibodas sub-district, West Java, Indonesia, is one of the agrotourism areas that is already well-known both in the country and abroad. As with other agro-tourism areas, so far the potential of Cibodas Botanical Gardens has not been optimally developed (Budhijono, Fongnawati, et al., 2023b; Mahaliyanaarachchi Rohana P., 2016). With an area of 84.99 hectares, the resilience and sustainability of the Cibodas Botanical Gardens, which offers natural tourism and reliable services, is greatly influenced by the ability of its managers to adapt to rapidly changing market conditions along with the rapid development of technology today (Diena, M, Lemy, et al., 2024; Paulina, Lo & Sugiarto, 2021; Sugiarto, 2023a; Sugiarto, 2023b; Ramanpong, J., et al., 2021).

The rapid changes in developments in many aspects recently have made the role of risk management in the management of the Cibodas Botanical Gardens very strategic in relation to the operation of the Cibodas Botanical Gardens, considering that the continuity of the Cibodas Botanical Gardens is very dependent on tourist satisfaction with the quality of services they receive in relation to the nature tourism services provided by the Cibodas Botanical Gardens (Diena, M, Lemy, et al., 2024; Bong et al., 2019). In this case, risk management at Cibodas Botanical Gardens, especially operational risk management, plays a very important role in advancing Cibodas Botanical Gardens through effective and efficient risk mitigation strategies (Sugiarto, 2023a; Sugiarto, 2023b; Sugiarto & Herawan, Tutut, 2022).

In order for risk management at the Cibodas Botanical Gardens to be carried out effectively and efficiently, the Cibodas Botanical Gardens management should be able to identify risk sources with significant impacts (Sugiarto, 2023b). Identification of risk events and associated risk management is very important because tourists' perception of destination risk directly influences tourists' purchase intentions (Sugiarto & Herawan, Tutut, 2022; Kiswanto, Amin, et al, 2024; Eshun, G., & Tichaawa, T. M., 2020). For this purpose, various tools are needed to enable tourism business managers to trace various risk events, especially those that have a significant impact on tourists, and based on these findings, managers can then design various relevant risk management strategies and implement operational risk management effectively and efficiently so that tourism business managers can maintain and even increase visitor satisfaction (Sugiarto, 2023a; Sugiarto, 2023b; Bong, et al., 2019).

The aim of this study, which is also a novelty of this study, is to formulate various tools that are useful in identifying various risk events that are useful as input for the managers of the Cibodas

Botanical Gardens to maintain and even improve the quality of operational services to tourists that are able to create competitive advantages (Lesmana, Henky & Sugiarto, 2021; Lesmana, Henky, et al, 2022; Lesmana, Henky, et al, 2023).

This study is based on a mixed research method, using cross-section data taken with the Concurrent Triangulation Strategy technique on 560 tourists and key informants at the Cibodas Botanical Gardens. This study uses various detection devices: Frequency Tables, Bar charts, Pareto Diagrams, Cause and Effect, Importance Performance Analysis, and Different Expectations and Perceptions tests. The results of the study found a synergy of various detection devices used in tracing various risk events that, in priority order, have a significant impact on tourists, namely Doctors on Duty, Adequate Number of Officers, Suggestion Boxes, Management Innovation, Polyclinics, Toilets, Published Information, Workforce, Quality of Workforce, Helpful Service, Parking Lots, Availability of Information, and Responsive Service.

Study 5

The fifth study is entitled "The Role of Indonesian Tourism Operational Risk Management in Improving Foreign Tourist Satisfaction" (Sugiarto; et al., 2024a).

In the previous four series of studies, it was found that operational risk management has a significant positive role on satisfaction and loyalty mediated by satisfaction, and both dimensions and indicators of operational risk management have been identified that are proven to be valid and reliable. In addition, various detection tools have been developed that are useful for supporting operational risk management. All information from the four studies was obtained from domestic tourists. To strengthen the findings that operational risk management really has a significant positive effect on satisfaction and loyalty mediated by satisfaction, complementary information is needed from foreign tourists so that the generalisation of the findings can be more accountable.

The efforts made in this series study 5 fit into the broader research agenda of the paper to confirm the role of operational risk management and the accompanying reflective indicators and provide more details on the significance of the findings. This fifth study was conducted to determine the effect of Operational Risk Management on foreign tourists' satisfaction. The study was conducted using data from 408 foreign tourists who had repeated experiences enjoying tourist destinations in Indonesia. In terms of the country of origin of the respondents who participated in this study, foreign tourist respondents came from 37 countries, where 80% of respondents came from the 10 largest countries participating in this study. Foreign tourists who participated in this study came from France, Singapore, Germany, Italy, the Netherlands, Australia, England, Malaysia, Spain and the United States.

The sample was taken using the Multi-stage Sampling Technique. The study was conducted using an explanatory sequential design of the mixed research method. Quantitative data analysis was conducted using the Structural Equation Model with the Smart PLS 3.0. The research findings found that Operational Risk Management plays a significant positive role in foreign tourists' satisfaction. The efforts that have been made by the government and by the managers of tourist destinations regarding operational risk management are positively appreciated by tourists in increasing their satisfaction when they enjoy moments at tourist destinations in Indonesia.

From the findings of this study, Operational Risk Management has a significant positive impact on satisfaction. Strengthening the performance of various operational risk management indicators that the government and tourism business managers have attempted has been positively appreciated by foreign tourists. However, even though Operational Risk Management has a significant positive effect on satisfaction, from the determination coefficient value, it is found that satisfaction can only be explained by 19.4% by Operational Risk Management. Thus, 81.6% of satisfaction is explained by things other than Risk Management. In-depth information gathered from foreign tourists who are respondents of this study found that in addition to Operational Risk Management, satisfaction from foreign tourists is contributed by the charm of the competitive advantages of Indonesian tourist destinations.

5. Discussion

From the findings of a series of 5 studies, Operational Risk Management has a significant positive impact on satisfaction. Strengthening the performance of various operational risk management indicators has been positively appreciated by both domestic and foreign tourists and increasing tourist satisfaction. To begin the discussion in this section, explicit summaries of the key findings from each of the five studies conducted by the researcher and the relationships between the five studies will be presented below.

The first study's results found that operational risk management had a significant positive effect on tourist satisfaction. Satisfaction has a significant positive effect on the intention to revisit and on the intention to recommend of tourists. Furthermore, from the support of empirical data, it is also found that satisfaction has a significant positive role as a mediating variable of operational risk management on the intention to revisit and the intention to recommend of tourists. The research findings found that when tourism destination managers are able to prepare good operational risk management, it can certainly provide satisfaction to users, and ultimately users will show loyalty, which is stated in more detail in the intention to revisit and the intention to recommend. It was also found that the indicators developed in relation to operational risk management are proven to meet the validity and reliability criteria, thus, they are reflective indicators of operational risk management.

The second study further develops the indicators that were developed in study 1, which is the novelty of this second study. The second study found that operational risk management plays a significant positive role in satisfaction and loyalty mediated by satisfaction. The second study also found that the indicators of operational risk management developed from study 1 meet the valid and reliable criteria.

This third study was a continuation of the two previous studies. The two previous studies found that operational risk management has a significant positive effect on satisfaction directly and on loyalty mediated by satisfaction. The operational risk management indicators developed by researchers in the two previous normative-based studies have proven to be valid and reliable. This third study aimed to develop the dimensions and indicators of operational risk management resulting from the two previous studies. In this third study, an exploration of the dimensions of operational risk management was carried out based on the concept of *Sapta Pesona Wisata*, which is a concept of values outlined by the Indonesian Minister of Tourism, Post & Telecommunications, which

is the essence of tourism development in Indonesia. The findings from study 3 found that the indicators developed from the *Sapta Pesona* concept and the detection tools used were able to function well. The research findings found that there were indicators that needed immediate improvement and also indicators whose performance needed to be maintained. In order for operational risk management to be carried out effectively and efficiently, tourism business managers or tourism destination managers should be able to identify sources of risk with significant impacts.

In the third research series, one relevant detection tool was developed using importance-performance analysis. In order to achieve more comprehensive performance improvements, various other devices must be developed that can support each other. Various detection devices used in Study 4 include Frequency Tables, Bar charts, Pareto Diagrams, Cause and Effect, Importance Performance Analysis, and Different Expectations and Perceptions tests. The results of study 4 found a synergy of various detection devices used in tracing various risk events that, in priority order, have a significant impact on tourists.

This fifth study was conducted with the aim of determining the effect of Operational Risk Management on the satisfaction of foreign tourists. The results obtained from Study 5 are very useful for strengthening the findings of 4 studies that took data from domestic tourists. The findings of this study, which are supported by empirical data from foreign tourists, align with the findings of studies that use response data from domestic tourists.

The relationship between operational risk management, satisfaction, loyalty and resilience

To maintain resilience, mutually beneficial existence and involvement are needed from tourists, who, in this case, represent the demand side and tourism business owners or managers, who, in this case, represent the supply side. Operational risk management, which has been proven to have a positive effect on tourist satisfaction and has an effect on tourist loyalty mediated by satisfaction, is an important aspect of creating tourism resilience. The findings of 5 series of studies conducted by researchers found that improvements in operational risk management produce real benefits in the context of tourism resilience because the satisfaction felt by tourists and their loyalty indicates that operational risk management brings benefits to both parties, namely tourists from the demand side and the owners or managers of tourism businesses from the supply side by presenting increased value for both parties from their respective perspectives. The increase in value presented by tourist satisfaction and loyalty bridges both parties in building resilience for both the tourism business and the sustainability of tourist destinations. Previous studies generally stated that satisfaction is achieved when the performance felt by tourists exceeds their expectations; however, the arguments for why this could happen were not presented in more detail. This section fills the research gap by providing an explanation based on logical thinking regarding the increase in value felt by both parties in building resilience, which has not been found in previous studies and is thus becoming the novelty of this study.

Review from the demand side

From the demand side, if operational risk management affects tourist satisfaction when they consume both products and services from the tourist destinations, tourist satisfaction will significantly impact tourist loyalty and thus open up opportunities

for them to revisit and/or recommend positive things to others. The impact is increasing the chances of the resilience of the tourism business because of the continuity of demand from tourists. The results of a series of studies found that Operational Risk Management significantly impacts satisfaction. Strengthening the performance of various operational risk management indicators has been positively appreciated by both domestic and foreign tourists and increasing tourist satisfaction. Thus, qualified operational risk management is needed to maintain and/or increase the resilience of tourist destinations. Conversely, if the performance of risk management is poor and tourists do not get satisfaction, their chances of becoming loyal will decrease and thus will reduce demand, which will then have an impact on weakening the resilience of tourist destinations.

An explanation of why operational risk management positively affects satisfaction can be stated as follows. From the perspective of users, tourism business risk management is concerned with expectations regarding the value generated from the division of benefits and costs (Sugiarto, 2023b).

$$Value = \frac{Benefits}{Cost}$$

Benefits state the advantages and usefulness obtained by both tourists and consumers in general. Cost states the sacrifices tourists or consumers make when they consume something. In the context of tourism, when tourists enjoy a tourism activity, they pay or spend a certain amount of money, which, in this case, is the sacrifice they must make, and in return, they obtain benefits from their sacrifices. The result of dividing benefit by cost is the value they obtained. The higher the benefit-to-cost ratio, the higher the value obtained by tourists. The value obtained by tourists and consumers will be maximised if the benefit-to-cost ratio is the highest. Operational risk management in the tourism business aims to manage the risks faced by tourism businesses and minimise the impacts that occur, thus maximising the value felt by tourists as users and enjoyers of tourism. The findings of the five series of studies presented above show that the value tourists perceive is represented by tourist satisfaction. A positive influence of operational risk management performance on tourist satisfaction was found. Thus, through operational risk management, tourists have the opportunity to gain increased value through increased benefits at the same cost level as they sacrifice so that the value obtained increases. Another possibility is that tourists have the opportunity to gain increased value when they gain the same benefits at a lower cost level. The next possibility is that they get higher value when they get increased benefits, and at the same time, the costs they sacrifice are lower. The increased value felt by tourists results in increased satisfaction and strengthened resilience (Sugiarto & Herawan, Tutut, 2022; Sugiarto, 2023b).

Review from the supply side

If the owner (business manager) and tourist destination gain profit from the tourism business they run, then there is an opportunity for their business to be more resilient and sustainable. On the other hand, if the manager experiences losses in managing their business, they tend not to be able to continue their business even though tourists or users are satisfied with the services they received on their previous visit and express their commitment to revisit. Thus, a significant positive relationship was found between operational risk management performance, satisfaction, loyalty and resilience.

The results of a series of studies found that Operational Risk Management has a significant positive impact on satisfaction. Strengthening tourist satisfaction will positively impact tourist loyalty, which will result in continued visits, either through repeat visits from the tourists themselves or visits from new tourists resulting from the positive effects of recommendations from previous tourists.

Risk management in the tourism business aims to manage the risks tourism business people face and minimise unwanted impacts. From the perspective of business owners and managers, the basic principles used in tourism business risk management refer to the general objectives of company management, namely maximising company value and shareholder wealth, which are expectations of the business's future performance.

From a financial perspective, expectations of the business's future performance are closely related to cash flow expectations and the level of risk that determines the business's value. The business's present value can be obtained using the equation to calculate the present value as follows:

$$PV = \frac{FV_n}{(1+k)^n} = FV_n \cdot \left[\frac{1}{(1+k)^n} \right]$$

In this case, PV is present value or principal value; FV_n is future value at the end of period n; k is the rate of return and n is the number of compounding periods. In the equation, cash flow expectations and risk levels are variables central to the formation of value and wealth of tourism business people and business shareholders. The higher the cash flow expectations that the company can generate, the higher the company's value, the higher the company's wealth and so is the shareholders' wealth. The cash flow expectations that the company can generate are reflected in the component. In this case, the magnitude of the component is directly proportional to the value of the company.

Thus, the higher the cash flow expectations that the company can generate, the higher the value and wealth of the company. The letter k represents the magnitude of the risk level. In this case, the magnitude of the k component indicates the rate of return on an investment. The set rate of return is considered the investment risk element (symbolised by r). In this case, the value of k is the value of r plus a certain targeted amount that represents the compensation for its efforts. Thus, because the value of k in the formula contributes to the divisor component, the magnitude of the k value is inversely proportional to the company's value. In conditions where the amount of compensation targeted by tourism business people does not change, the higher the risk, the higher the value of k; as a consequence, the lower the value of the company and so is the shareholders' wealth. Therefore, risk must be managed to reduce the magnitude of risk, and ultimately, the company's value will be higher.

In relation to the equation stated above, to increase the company's value, the following three methods can be taken: increase cash inflow by maintaining a certain level of risk, reduce risk by maintaining a certain level of cash flow; or increase cash flow and simultaneously reduce risk. In conditions where the company is having difficulty increasing cash flow, reducing risk is an alternative that can increase the company's value. In this case, risk management is a method that can be used to manage risk.

Through the empowerment of various detection devices as tested in this study, tourism business managers are able to trace various risk events that have a significant impact on tourists. The results of the study prove that various risk detection devices function to support each other between one device and another. With the synergy of various detection devices used in tracing various risk events that significantly impact tourists allows tourism business managers to focus their efforts on improving performance effectively and efficiently. Even by conducting a more detailed tracing from the use of one detection device to the use of the next detection device, operational risk indicators can be explored that fall into the high-importance quadrant, but the performance shown is still low, so by using the Performance Expectation and Perception Ratio Analysis can focus on operational risk indicators or operational risk aspects that need to be improved at the tourist destinations studied. By finding and making improvements to aspects that are truly urgent to be fixed from the user's perspective, user satisfaction will increase, which will then strengthen resilience.

From the business manager's side, operational risk management faced by companies engaged in the tourism business plays a role in managing and reducing the impact of the risks that occur. Thus, by understanding the process of operational risk management in tourism and managing aspects that are considered important by tourists in particular and consumers in general, tourists feel an increase in safety, security and surety, making them gain increased satisfaction and subsequently increase loyalty (Sugiarto & Herawan, Tutut, 2022). On the side of tourism business managers, mastery of operational risk management makes them have general competence in risk management in the tourism business in relation to designing the tourism risk management process, managing aspects that are considered important by tourists and having an understanding of the implementation of corporate governance and risk detection tools in the tourism business (Budhijono, Fongnawati, et al., 2023b). The impact is on the ability to sustain the income they earn, thereby fostering the resilience and sustainability of their tourism business.

The role of operational risk management in tourism destination resilience

The increase in value felt by tourists can be seen from various indicators such as increasing the following: security, safety and comfort, tourist satisfaction, solid reputation of tourist destinations, quantity and quality of visitors to tourist destinations from time to time, profits of tourism business organisers, productivity and performance of tourism business organisers, social responsibility of tourism business organisers towards employees, customers, stakeholders and the wider community, efforts of tourism business managers to minimise the negative impacts of environmental damage, etc. These various indicators directly affect the resilience of the tourism business, which allows stakeholders to carry out contingency plans so that the operations of the business organising company continue, maintaining the tourism ecosystem which then builds the sustainability of the tourism business in various regions in Indonesia.

The findings of the five series of studies presented above show that the value perceived by tourists is represented by tourist satisfaction. A positive influence of operational risk management performance on tourist satisfaction was found. The increase in value felt by various parties results in increased satisfaction. (Sugiarto & Herawan, Tutut, 2022; Sugiarto, 2023b). Although researchers have

not yet explicitly examined the resilience stage, previous studies have found a positive relationship between operational risk management and tourist destination resilience mediated by tourist satisfaction. One of the supporting research findings was conducted by Dela Safitri, et al (2023), who researched the resilience of the Telaga Warna Puncak tourist destination after the COVID-19 pandemic. The management of Telaga Warna (coloured lake) Puncak, West Java, Indonesia, implemented several strategies to strengthen destination resilience after the pandemic by improving operational risk management performance that focused efforts on maintaining the destination and security around the lake, as well as implementing strict health protocols to ensure the comfort and safety of tourists.

The efforts made by the management resulted in visitor satisfaction and increased the added value of the Telaga Warna Puncak tourist destination, which already has natural beauty, a strategic location in the Puncak area, and open and wide destination access. Although the Covid-19 pandemic had a negative impact on the number of tourist visits at that time, this destination managed to maintain its appeal and was quickly able to reattract tourists because tourists who came were satisfied when they visited the destination (Dela Safitri, et al., 2023). Amirudin, et al. (2017), who researched risk management practices in the tourism industry – a case study of resort management also found that risk management could influence the sustainability of the resort's operations in Malaysia and the risk management techniques used to reduce those resort risks actually satisfy both current and future conditions of the resort. Paulina Lo, et al. (2023a; 2023b) found that tourism destination sustainability represents the ability of a tourism destination to continue its essential functions indefinitely without any degradation in quality, which in this case is positively related to tourism destination resilience, which represents the ability of a tourism destination to thrive in the face of change. In line with the findings of Amirudin, et al. (2017), management must continuously plan and implement risk management in their organisation.

6. Conclusions

The findings of the five series of studies confirm the importance of operational risk management in tourist satisfaction and loyalty, which will then affect the resilience of tourism destinations in particular and Indonesian tourism in general. Various dimensions and indicators of operational risk management, along with instruments developed for detecting quality problems and revealing the causes of quality problems, have been proven to function as expected. The research findings also prove the synergy capabilities of various detection devices researchers have developed.

Various dimensions-indicators event risk detection instruments developed by researchers can make operational risk management carried out effectively and efficiently, providing information to tourism business managers or tourism destination managers in identifying sources of risk with significant impacts. The ability to identify risk events and related operational risk management is very important because it allows for effective and efficient performance improvements, increasing tourist satisfaction and loyalty. Performance improvements that are in accordance with the perspective of tourists directly affect their tourist satisfaction and purchase intention.

Various tools developed enable tourism business managers to trace various risk events, especially those that have a significant impact on tourists and based on the findings obtained, tourism business managers or tourist destination managers then design various relevant risk management strategies and implement operational risk management effectively and efficiently so that they can maintain and even increase tourist satisfaction.

Tourist satisfaction and loyalty resulting from operational risk management shows that operational risk management benefits both parties, namely tourists from the demand side and tourism business owners or managers from the supply side, by presenting increased value for both parties from their respective perspectives. The increased value presented by tourist satisfaction and loyalty bridges both parties in building resilience in the tourism business and the sustainability of tourist destinations. From users' perspective, tourism business risk management is concerned with expectations regarding the value generated from the division of benefits and costs. The value obtained by tourists and consumers will be maximised if the benefit-to-cost ratio is the highest. Operational risk management in the tourism business aims to manage the risks faced by tourism businesses and minimise the impacts that occur, thus maximising the value felt by tourists as users. From the business manager's side, operational risk management faced by companies engaged in the tourism business plays a role in managing and reducing the impact of the risks that occur.

By reducing risk through operational risk management, the company's value will ultimately increase. Suppose the owner (business manager) and tourist destination get an increase in value from the investment of the tourism business they run. In that case, there is an opportunity for their business to be more resilient and sustainable. Operational risk management applied in various tourist destinations positively impacts tourist satisfaction, which will normatively strengthen the resilience of various tourist destinations in Indonesia. Thus, strengthening operational risk management has the potential to increase Indonesian tourism resilience through the achievement of tourist satisfaction and loyalty.

7. Suggestions

In order to manage risk properly, besides knowing the impact of each risk that arises, it is also necessary to know the correlation of one risk with other risks. As an illustration of the correlation of various risk classifications in the tourism industry, the following description will be given: operational risk usually impacts reputation risk, operational risk can also give rise to legal risk, credit risk can impact liquidity risk, etc. With the increase in operational risk, tourist satisfaction and loyalty decrease. Furthermore, they are reluctant to come again, thus impacting the decline in demand. From the perspective of tourism business managers, the impact is a decrease in cash inflow, which has an impact on financial risk and will reduce the continuity of business and the resilience of the tourism business they manage.

Moreover, if tourists who feel dissatisfied give negative testimonials on social media that are read by many people with the impact of increasing the reputation risk of the tourism business they manage. The reputation risk of a tourist destination in terms of safety, attractiveness, and comfort generally negatively affects visitors' perceptions, which in turn causes a decline in the local economy and tourism, disrupting the continuity of local tourism industry business operations due to reduced arrivals and income from tourists. Suppose tourist dissatisfaction is followed by losses

experienced, both material and immaterial. In that case, it is possible that the further impact is a lawsuit that will increase the legal risk of the tourism business, and so on. With the connection between one risk classification and another, to classify the risks that arise, tourism business managers must trace the actual root causes of an unwanted event. Based on the results of risk identification, the company can get an idea of how big the impact of the risk is, how capable the company is in overcoming it, and whether the company will manage the risk itself or will transfer it to another party with a certain amount of compensation.

None of the studies that have been conducted explicitly researched resilience. The impact of tourism operational risk management on the resilience of tourist destinations is still based on the normative view that increasing tourist satisfaction increases the value obtained by both tourists and tourism business owners or managers who are bridges for the formation of tourism resilience and based on the findings of previous studies. It is assumed that tourism resilience is built on the basis of tourist satisfaction and loyalty. In future studies, more in-depth research can be conducted on the impact of tourism operational risk management on the resilience of tourist destinations, even on the sustainability of tourist destinations. In future studies, the research model that has been used in the series of studies conducted in this series of studies can be developed by adding the variable of tourist destination resilience as an endogenous variable so that the impact of operational risk management on resilience mediated by tourist satisfaction and loyalty can be explicitly evaluated.

In the series of studies that have been conducted, researchers are still focusing on the operational risk management construct while constructs related to other risk classifications and other risk event classifications as stated in the Tourism Risk Event Model on Indonesian tourism resilience have not been studied. For further research, research can be conducted both separately and simultaneously on the role of each construct stated in the Tourism Risk Event Model so that more comprehensive empirical support is obtained regarding the full role of the Tourism Risk Event Model on Indonesian tourism resilience and on Indonesian tourism sustainability.

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