E-LEADERSHIP STRATEGY IN THE DEVELOPMENT OF SUSTAINABLE TOURISM IN RAJA AMPAT BASED ON GREEN TOURISM

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Informasi Artikel	ABSTRACT
	This study explores the role of E-Leadership in advancing sustainable tourism in Raja Ampat, one of Indonesia's leading marine tourism destinations. Raja Ampat is renowned for its extraordinary natural beauty, rich marine biodiversity, and vibrant local culture. However, the rapid growth of tourism in the region has raised environmental and socio-cultural challenges that require innovative and sustainable management approaches. The main issue addressed in this study is the lack of effective environmentally friendly tourism management and the suboptimal use of digital technology in destination governance. The aim of this research is to analyze how E-Leadership can be applied as a strategy to manage tourism sustainably in Raja Ampat. This study uses a descriptive qualitative approach, employing literature review and in-depth interviews with tourism stakeholders such as local governments, business actors, and community members. The results indicate that E-Leadership significantly contributes to enhancing transparency, strengthening stakeholder collaboration, and accelerating data-driven decision-making processes. By integrating the principles of green tourism and sustainable development, E-Leadership has proven effective in supporting the protection of natural resources, empowering local communities, and ensuring long-term economic resilience. This paper highlights how digital technology, when effectively implemented through E-Leadership, can facilitate responsible tourism practices and contribute to the preservation of Raja Ampat's ecological and cultural heritage.

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1. INTRODUCTION

Leadership is a classical topic in the field of management and plays a crucial role in the study of organizational behavior (Torre & Sarti, 2020). Recently, leadership practices in virtual settings have become an essential part of managers' daily work. The use of new forms of communication technology, along with the geographical expansion of corporate activities, has increased the need to lead people through digital channels (Torre & Sarti, 2020). In response to these changes, organizational experts have introduced the concept of e-leadership to refer to leaders who conduct many leadership processes primarily through electronic channels (Torre & Sarti, 2020). Leadership can be briefly defined as the process by which an individual uses their influence over other individuals or groups to achieve common goals, with that influence being exercised effectively. In fact, effectiveness is the most important requirement for successful leadership in this context (Oleksa-Marewska & Tokar, 2022).

Transformational leadership style consistently delivers better outcomes for organizations and team performance, even under uncertain and crisis conditions. Maduka et al. (2018) identified the competencies required by leaders to manage the performance of their virtual teams. They also emphasized the transformational leadership style when selecting virtual leaders, as it leads to the formation of highly effective teams (Kashive et al., 2022). The relationship between organizations and their leaders has been extensively studied. Leadership plays a key role in managing change within organizations.

Leadership can be briefly defined as "the process by which an individual uses their influence over other individuals or groups to achieve common goals, with that influence being exercised effectively" (Oleksa-Marewska & Tokar, 2022).

E-leadership can be defined as an effective way and a combination of electronic and traditional communication methods, which implies awareness of current information and communication technologies (ICT), selective adoption of new ICTs for oneself, and both organizational and technical competence in using the selected ICTs (Streimikiene et al., 2021). E-leadership, in the context of an electronic work environment, is mediated by information technology. However, an e-leader does not necessarily have to be a technical expert but must know how to leverage technology and lead efficiently. The use of electronic communication modes presents challenges such as social isolation and work-family conflict (Streimikiene et al., 2021). An e-leader needs to identify solutions, manage processes, and lead people using a virtual environment that aligns with the organization's vision and mission. The transition from traditional leadership to e-leadership is still in its early stages, making it difficult for organizations to measure the achievements of e-leadership (Ahuja et al., 2023).

Tourism is one of the sectors that makes a significant contribution to the global economy and is also a key driver of regional development. However, poorly managed tourism can have negative impacts on the local environment and socio-cultural conditions. Therefore, there is a growing need to develop sustainable tourism through more environmentally friendly approaches, one of which is the concept of green tourism (Adolph, 2016).

Raja Ampat, located in Southwest Papua, is one of Indonesia's premier tourist destinations, renowned for its stunning marine beauty, breathtaking coral reefs, and extraordinary marine biodiversity. Raja Ampat has attracted tourists from around the world, making it one of the fastest-growing tourism destinations in recent years. Its spectacular natural beauty, including a wide variety of fish and coral species, makes Raja Ampat a paradise for divers and nature lovers. In addition, conservation efforts carried out by the government and various non-governmental organizations have helped preserve the region's marine ecosystems, thereby attracting more tourists who are concerned with sustainable tourism (Mulyani et al., 2025).

In the ideal concept of tourism, tourism activities in a region are expected to generate positive impacts such as the preservation of nature and culture, while also providing economic benefits that can improve the welfare of local communities. However, it cannot be denied that tourism activities may also cause negative impacts, particularly environmental pollution and socio-cultural disruptions brought by tourists. Therefore, the concept of sustainable tourism emerges as an effort to maximize the benefits gained from the tourism sector while minimizing its negative impacts (Kurniasari et al., 2024).

One of the steps that can be taken is moving toward the development of sustainable tourism. The application of sustainable tourism development in destinations with cultural tourism attractions includes key pillars based on Global Sustainable Tourism principles (Kurniasari et al., 2024). Raja Ampat, considered an underwater paradise located in the easternmost part of Indonesia, has become one of the most popular tourist destinations in the world. With its breathtaking natural beauty, Raja Ampat holds great potential to attract both domestic and international tourists. However, to ensure the sustainability of the tourism industry there, the implementation of the Sapta Pesona (Seven Charms) concept becomes highly important (Mulyani et al., 2025). The concept of sustainable tourism is increasingly vital in the development of tourist destinations, including in Raja Ampat. Sustainable management is necessary to ensure the preservation of natural resources, the protection of local culture, and the long-term improvement of the local community's economic welfare (Mulyani et al., 2025).

To address these challenges, an E-Leadership strategy can play a crucial role in enhancing transparency, effectiveness, and stakeholder participation in tourism management in Raja Ampat. The application of digital technology in tourism destination management systems enables faster and more accurate decision-making, while also encouraging the involvement of various parties in maintaining environmental sustainability and supporting the local economy (Sa'diyah, 2022).

The research question of this paper is: How does e-leadership contribute to advancing sustainable tourism in Raja Ampat? The study aims to analyze the role and effectiveness of e-leadership strategies in promoting sustainable tourism practices, improving stakeholder collaboration, and ensuring the long-term preservation of Raja Ampat's natural and cultural resources.

Literature Review

Local Community Empowerment

Efforts to empower communities are reflected in the actualization of their existing capabilities, with a strong emphasis on fostering independent local communities (Chelsea & Suryasih, 2021). Empowering

local communities is a strategic effort to improve the quality of life and well-being of people living around development areas. In the context of tourism development, community empowerment means actively involving local residents in the planning, management, and utilization of tourism potential in their region. According to Chelsea & Suryasih (2021), the goal is for local communities to gain economic benefits, preserve cultural values, and contribute to environmental conservation. Empowerment is a process through which communities gain control over the factors and decisions that affect their lives. In other words, empowerment is not merely about providing aid but about offering opportunities for people to grow based on the potential they already possess.

Infrastructure Development

The presence of well-developed infrastructure enhances the attractiveness of a tourist destination and extends tourists' length of stay. Additionally, adequate infrastructure serves as a foundation for the development of sustainable and environmentally friendly tourism activities (Purwanta et al., 2024).

Natural Resource Management

Natural resource management (NRM) is a systematic effort to plan, utilize, conserve, and monitor natural resources to ensure their sustainable use for current and future generations. In the context of sustainable tourism development, NRM plays a crucial role in balancing economic use with environmental preservation. Natural resources such as oceans, forests, and biodiversity in Raja Ampat are vital assets that must be managed wisely. This includes regulating tourism activities to prevent ecosystem damage, involving local communities in conservation efforts, and applying environmentally friendly technologies. Furthermore, educating tourists about the importance of environmental protection is also part of the NRM strategy.

Collaboration with Stakeholders

Tourism stakeholders include the government, the private sector, and the community. These three pillars are considered crucial to the success of development efforts, particularly in the tourism sector. Tourism development cannot be carried out harmoniously without the involvement of these stakeholders. Each party has a distinct role: the government, as the policymaker, should be able to implement policies that involve the community as a key component of development. The realization of good governance is essential so that government and development management can be conducted efficiently and effectively. Good governance is characterized by democracy, decentralization, transparency, and community empowerment. Equally important is the role of the private sector, particularly those directly involved in the tourism industry such as hotel owners, restaurant operators, and other tourism-related businesses. Without these private investors, the tourism industry cannot function effectively (Suryani & Mulki, 2019).

Green Tourism

Green tourism is a tourism concept that emphasizes environmental conservation, efficient use of resources, and respect for local culture and communities. The primary goal of green tourism is to create environmentally friendly and sustainable travel experiences that provide long-term benefits for both nature and people. Green tourism practices include:

- Reducing the use of single-use plastics and other waste.
- Using environmentally friendly transportation such as bicycles, electric vehicles, or walking.
- Staying in accommodations that apply sustainability principles (eco-lodges).
- Supporting local products and community-based economies.
- Preserving natural and cultural heritage sites.

By applying green tourism principles, destinations like Raja Ampat can protect their marine and terrestrial environments while raising tourists' awareness of the importance of sustainable tourism. This concept also encourages the active involvement of local communities as stewards of the environment and as direct beneficiaries of tourism-related economic opportunities.

Relevance to E-Leadership Strategy and Sustainable Tourism

The e-leadership strategy plays a vital role in supporting the aspects mentioned above by utilizing digital technology to improve coordination and communication among stakeholders, accelerate decision-making, and facilitate community participation in tourism management. Through digital platforms, e-leadership enables greater transparency and effective collaboration between the government, local communities, the private sector, and tourists. This is crucial in applying the principles of green tourism and sustainable natural resource management, as timely and accurate decisions can anticipate negative impacts and support the preservation of the environment and culture. Therefore, e-leadership is a key strategy for integrating technology and resource management in realizing sustainable tourism in Raja Ampat and other tourist destinations.

2. RESEARCH METHODOLOGY

This study employs a qualitative descriptive approach to explore and analyze the role of E-Leadership in the development of sustainable tourism in Raja Ampat based on green tourism principles. The qualitative method is chosen to provide an in-depth understanding of leadership dynamics, stakeholder involvement, and the implementation of digital technologies in tourism governance.

1. Research Approach

The research uses a case study design focusing on Raja Ampat as a unique and strategic destination known for its biodiversity and growing eco-tourism initiatives. This approach enables the researcher to deeply investigate the real-life context

and phenomena surrounding E-Leadership and sustainable tourism practices.

2. Data Collection Techniques

The data collection was conducted through the following methods:

- **In-depth Interviews**: Conducted with key stakeholders such as local government officials, tourism department representatives, local community leaders, tourism entrepreneurs, and NGO representatives involved in environmental conservation.
- **Observation**: Field observations were carried out in selected tourism sites within Raja Ampat to directly observe the implementation of digital tools, green tourism practices, and community involvement.
- **Document Analysis**: Reviewing strategic planning documents, government reports, tourism regulations, and digital media platforms used in tourism management.

3. Data Analysis

The data collected was analyzed using **interactive model analysis** by Miles and Huberman, which includes three steps:

- **Data Reduction**: Sorting, focusing, and simplifying data from the field.
- **Data Display**: Presenting data in the form of narratives, tables, or diagrams to make patterns clearer.
- **Conclusion Drawing/Verification**: Interpreting the findings to derive meaningful conclusions about the effectiveness of E-Leadership in promoting sustainable and green tourism in Raja Ampat.

4. Validity and Reliability

To ensure data validity, the study applies **triangulation**, by comparing data from different sources (interviews, observations, and documents). Member checking was also conducted by confirming the findings with informants to ensure the accuracy of interpretations.

3. RESULT AND DISCUSSION
Results

The rapid growth of tourism in Raja Ampat brings complex environmental and socio-cultural challenges, requiring innovative and sustainable management approaches. Moreover, the involvement of various stakeholders and proper management of natural resources are key to achieving sustainable tourism goals. However, challenges such as limited internet access in remote areas and the digital literacy gap among community members hinder the effective implementation of these strategies.

Theory

The theory of e-leadership emphasizes leadership that leverages digital technology to enhance transparency, coordination, and effective decision-making in electronic work environments. In the context of sustainable tourism, e-leadership serves as a strategic framework to integrate communication technology with natural resource management, community empowerment, and stakeholder engagement (Streimikiene et al., 2021; Torre & Sarti, 2020). Additionally, green tourism principles demand environmentally friendly management focused on preserving nature and culture (Adolph, 2016).

Analysis

The implementation of e-leadership in Raja Ampat shows significant potential to support sustainable tourism by optimizing digital technology use, increasing stakeholder participation and coordination, and empowering local communities. Through digital platforms, tourism management processes become more transparent, participatory, and effective, thereby supporting environmental conservation and sustainable community economic development. However, technical and social challenges still need to be addressed for the benefits of e-leadership to be fully realized.

Indicators and Parameters of the E-Leadership Strategy Used in the Study

1. **Utilization of Digital Technology in Tourism Management**
- Use of digital platforms for destination promotion, tourist monitoring, and environmental education.
- Online systems for visit regulation and permitting.

2. **Stakeholder Engagement and Participation**
- Use of digital communication tools (Zoom, WhatsApp, online forums) for coordination among stakeholders.
- Transparency and collaboration in planning and environmental regulation monitoring.

3. **Empowerment of Local Communities**
- Online training programs and digital marketing to increase community capacity.
- Increased management of homestays, guide services, and eco-friendly products by local residents.

4. **Promotion of Green Tourism Values**
- Digital campaigns encouraging responsible tourist behavior.
- Collaborations with influencers to raise awareness of conservation and sustainability.

Discussion

The results of this study indicate that the implementation of E-Leadership strategies has significantly contributed to the progress of sustainable tourism development in Raja Ampat. Several key points are discussed below to elaborate on the research findings:

1. E-Leadership Enhances Governance Efficiency

The integration of digital tools in leadership processes has improved the efficiency of tourism governance. The use of online platforms for coordination, decision-making, and monitoring has reduced bureaucratic delays and allowed for more responsive management. This finding aligns with

Ahuja et al. (2023), who emphasized that E-Leaders do not need to be technical experts but must possess the vision and skills to utilize ICT in facilitating effective governance.

2. Strengthened Stakeholder Collaboration

E-Leadership fosters a more inclusive environment by enabling consistent and open communication among various tourism stakeholders. The involvement of the local community, NGOs, and the private sector through virtual platforms has strengthened the shared commitment to sustainability. This supports the theory proposed by Suryani & Mulki (2019), which highlights the importance of stakeholder synergy in ensuring harmonious and impactful tourism development.

3. Community Empowerment through Digital Platforms

This study reaffirms that community empowerment is essential to sustainable tourism, and digital tools have become a catalyst for such empowerment. Online training, digital marketing, and knowledge-sharing platforms have given local residents the tools to participate meaningfully in tourism activities. As noted by Chelsea & Suryasih (2021), empowerment is more than assistance—it is the process of building independence and capacity.

4. Green Tourism Principles as the Foundation

The incorporation of green tourism principles is evident in the strategic direction of Raja Ampat's tourism development. E-Leadership has supported this shift by promoting awareness and behavior change through digital media. Consistent with Adolph (2016) and Mulyani et al. (2025), the use of technology has helped disseminate green tourism values, influencing both tourist behavior and operator practices toward more eco-conscious decisions.

5. Challenges and Limitations

Despite its benefits, the implementation of E-Leadership faces several challenges. The most significant obstacles include limited internet infrastructure in remote islands, disparities in digital literacy among local communities, and inconsistent policy enforcement. These findings point to the need for continuous investment in digital infrastructure and capacity building to ensure the long-term sustainability of E-Leadership models in tourism governance.

4. CONCLUSION

This study reveals that E-Leadership serves as a critical enabler for sustainable tourism development in Raja Ampat by effectively integrating green tourism principles with digital governance tools. Unlike traditional leadership approaches, E-Leadership leverages real-time digital communication and management platforms to increase transparency, accelerate decision-making, and foster multi-stakeholder collaboration in tourism governance.

The novelty of this research lies in demonstrating how E-Leadership empowers local communities through digital training and marketing initiatives, leading to measurable improvements in economic independence and environmental awareness. Additionally, the study highlights the practical use of digital technologies in monitoring tourist flows and enforcing environmental regulations, which enhances the preservation of Raja Ampat's natural and cultural resources.

Despite its promising outcomes, this study also identifies infrastructural limitations and digital literacy disparities as key obstacles that could hinder the full potential of E-Leadership. Addressing these challenges is essential for scaling up and sustaining the benefits over the long term.

Overall, this research contributes new insights into the strategic role of E-Leadership as an innovative governance model that aligns technology, community empowerment, and environmental stewardship to achieve balanced and resilient sustainable tourism development in Raja Ampat.

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