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Assessing policy advocacy: The implementation of digital-based sustainable tourism in Batam City, Riau Islands, Indonesia

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Abstract

The tourism sector in Indonesia, particularly in Batam City, Riau Islands, plays a crucial role in economic growth but faces challenges due to governmental underdevelopment and the dominance of private entities. Although governmental plans exist through the Department of Culture and Tourism, the execution requires improvement, impacting service quality and visitor experiences. Therefore, this study aims to assess the implementation of digital-based sustainable tourism policies in Batam City, Riau Islands, Indonesia, with a focus on analyzing policy advocacy, evaluating implementation effectiveness, and identifying encountered barriers and successes. Through a literature review, key aspects such as digital capability, financial support, digital infrastructure, mentorship support, and policy support are examined. Additionally, target indicators related to decent work and economic growth are analyzed to provide insights into tourism development. Advocacy for local government policy in Batam City is explored in alignment with provincial development missions and objectives. The study further presents strategies and challenges in regional development related to the tourism sector, along with a SWOT analysis outlining internal and external factors influencing tourism development in Batam City. Strategic recommendations are proposed to propel Batam towards becoming a vibrant and sustainable tourism hub in Indonesia, considering its strengths, weaknesses, opportunities, and threats.

Keywords: Digital Tourism, Policy advocacy, Sustainable tourism, SWOT analysis.

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1. Introduction

The tourism sector in Indonesia has emerged as a significant contributor to both national and regional economies [1, 2] experiencing notable growth trajectories [3-5]. Projections suggest that by 2024, the revenue from tourism in Indonesia is anticipated to reach US\$8,971.00 billion, with an annual growth rate of 5.04%, culminating in a market volume of

US\$10,920.00 billion by 2028 [6]. The legal framework, particularly Law Number 32 of 2004 on Regional Autonomy, delegates tourism affairs to regional governments. Within the context of regional autonomy, these governing bodies possess the autonomy to delineate the trajectory of economic development, including that of the tourism sector. Tourism assumes a pivotal role in bolstering the advancement of autonomous regions, primarily through augmenting regional revenue to fund developmental initiatives and elevate societal welfare [7]. Consequently, the strategic development and establishment of tourism-centric locales as primary destinations stand as imperative agendas for regional progress across various domains, encompassing natural, cultural, religious, and culinary tourism [8].

Tourism policy encompasses a framework of regulations, guidelines, and development objectives that influence decision-making processes, thereby shaping the long-term trajectory of tourism development and daily operations within destinations [9]. The fundamental principle underlying tourism policy is to ensure maximal societal and economic benefits are derived from tourism contributions, ultimately fostering progress at the national or regional level and improving the livelihoods of citizens. This definition underscores the importance of coordination among various entities involved in service provision, planning, development, and management within the tourism sector. As a public policy, tourism policy formulation primarily involves governmental bodies at both central and local levels, in addition to nationalized industries or public corporations [10]. According to Ahmed and Krohn [11] tourism policy holds practical and theoretical significance, particularly in facilitating international travel through governmental cooperation, provision of services and facilities, interactions with other sectors, utilization of natural resources, visa issuance, and destination marketing [10].

In light of the fourth industrial revolution and society 5.0, the integration of digital technology becomes increasingly indispensable within the tourism sector. Digitalization plays a pivotal role in reshaping tourism businesses, products, experiences, ecosystems, and destinations [12]. The advent of digital platforms expands the array and volume of tourism offerings, expedites transactions, enhances market awareness, and facilitates market feedback. However, challenges persist, such as low digital literacy among local communities, particularly in Batam City, Riau Islands, and limited digital infrastructure. Consequently, digital transformation within Batam's tourism sector necessitates meticulous and comprehensive planning. Minister of Tourism Arief Yahya emphasizes that digital transformation is imperative for business sustainability in the new normal, necessitating strategic support across all facets of the industry [13]. Thus, leveraging digital transformation while adhering to sustainable tourism principles represents the solution for Batam's tourism development. However, challenges persist, including governmental underdevelopment, notably within the Batam City Department of Culture and Tourism, leading to negligible growth in tourist arrivals. Moreover, the dominance of private entities in the tourism sector poses challenges. Although governmental plans exist through the Department of Culture and Tourism, their execution requires improvement, impacting service quality and visitor experiences. Given Batam City's diverse tourist attractions, efforts are warranted to bolster governmental capacity in tourism management, positioning it as a distinctive destination and transforming tourism governance through public institutions to deliver exemplary services [14]. Thus, the research objective is to analyze the implementation of digital-based tourism policies in Batam City, evaluate the extent of digital-based sustainable tourism development implementation, and identify encountered barriers and successes.

2. Research Methods

2.1. Study Area

The study area encompasses Batam City, the largest city in the province of Riau Islands, Indonesia. Batam City serves as a center for urban service activities with the designation of Batam City as a Free Trade Zone and Free Port Area in the Regional Spatial Planning. Batam Center serves as the city center in the urban service center system, playing a role as a hub for government services, trade, services, and industry. Sub-city centers are scattered in several areas of the city including Rempang Island, Galang Island, Belakang Padang Island, and Buluh Island, each playing a role as sub-centers for industrial, trade, service, and tourism services. The industrial potential in Batam City comprises approximately 29 Industrial Zones in Batam City spread across 6 Industrial allocation zones that have been developed in Batam City. More than 100 shipbuilding industries operate in Batam City, spread across Tanjung Uncang, Sagulung, Sekupang, Batu Ampar, and Kabil. Batam City is among the top three entry points for foreign tourists to Indonesia, after Jakarta and Bali. Approximately 1.9 million foreign tourists visit Batam annually. The small islands in the northern region of Batam City have the potential to be developed as marine tourism and eco-tourism areas including cultural tourism such as Lengkana Island, Air Asam Island, Air Manis Island, Leroy Island, Sekila Island (Belakang Padang Sub-district), Puteri Island (Nongsa Sub-district). The small islands in the southern region of Batam City have the potential to be developed as marine tourism and eco-tourism areas including cultural tourism. They offer locations for beach recreation, coral reefs, water sports, and fishing spots in the Waters of Abang Island and Petong Island.

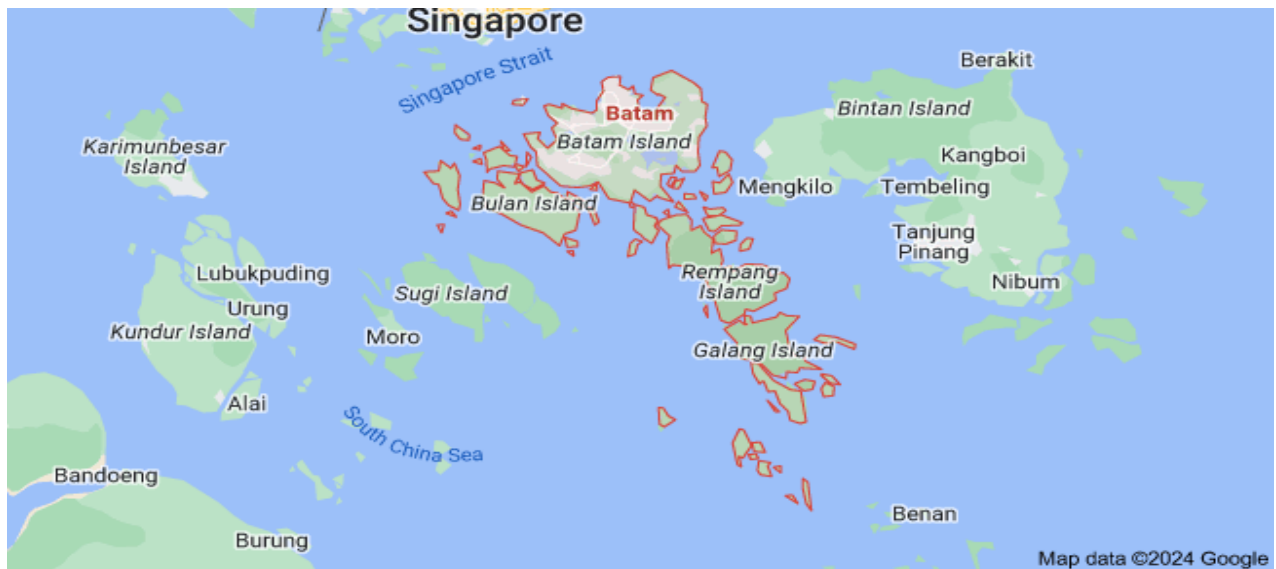


Figure 1.
Location map of the study area.

2.2. Screening of Published Literature

Screening of published literature involves a methodical process of searching, evaluating, and synthesizing existing academic and professional literature pertinent to a specific research topic or question. In the context of assessing policy advocacy concerning the implementation of digital-based sustainable tourism in Batam City, Riau Islands, Indonesia, several key steps can be outlined. Initially, the search parameters should be clearly defined, encompassing keywords and phrases relevant to the subject matter, such as “Advocacy policy”, “Digital-based sustainable tourism,” “Batam City”. Subsequently, a selection of databases tailored to the scope of the research is essential; in this case, databases like Google Scholar, ScienceDirect, Scopus, PubMed, and ResearchGate offer diverse sources across various disciplines. The search spanned from the years 2019 to 2024, aiming to capture recent studies and developments in the field. Upon identifying suitable literature, data extraction becomes paramount, involving the retrieval of essential information such as key findings, methodologies, and implications. Quality assessment follows, wherein the credibility of authors, methodological rigor, and relevance to the research are evaluated to ascertain the reliability of the selected literature. Finally, a synthesis and analysis of the findings are conducted, elucidating common themes, identifying gaps, and extracting insights to inform the study's objectives. Through this systematic approach, the screening of published literature serves as a robust foundation for scholarly inquiry, facilitating the advancement of knowledge in the field of digital-based sustainable tourism policy advocacy in Batam City, Riau Islands, Indonesia.

3. Result and Discussion

3.1. Digital-Based Sustainable Tourism

Contemporary tourist destinations require digital transformation [15]. Digital transformation entails cross-functional expertise in processes, practices, infrastructure, and customer relationships enhanced through digital media. There are four dimensions of digital technology utilization, as follows:

1. Destination information provision: comprising destination interpretation, itinerary scheduling, and static map provision for understanding attractions, accommodations, and tourist facilities.
2. Information sharing: bidirectional from stakeholders as suppliers to tourists as customers. Through digital technology capabilities, destinations will acquire and manage big data from past and present times, as well as predictions for future facility usage.
3. Context awareness: provision of attractions or facilities in tourist destination areas, the ability to provide real-time travel information, and the capability to determine user travel itineraries.
4. Tagging capability: the ability to record information for tourists for future use.

Despite the development of sustainable tourism in Batam City based on digital platforms, digital transformation still faces challenges, primarily due to the low level of digital literacy among the populace. The Ministry of Tourism and Creative Economy (Kemenparekraf), local governments, the tourism industry, and local communities must collaborate to manage digital platform content, including updates and creating new digital cultures at these destinations. Meanwhile, academia should support by providing education related to digital literacy. The main issue is that the mastery of digital technology required in digital-based tourism development is literacy in the latest 3.0 to 4.0 technologies, as well as the Internet of Things (IoT). Meanwhile, tourism destinations in Indonesia have not even mastered web 1.0 development and updates, or interactive 2.0 technologies [15]. Another challenge is the qualification of human resources in remote destinations. To address the technology and human resource gap, provision of devices, intensive training and education, and a national digital movement are needed.

The success of digital-based tourism sector development primarily depends on the connection of various platforms, namely tourist destinations with digital transformation [16, 17]. The prevalence of multi-attraction travel caused by

technological advancements that drive information dissemination and navigation means that destinations relying solely on one attraction will fail to compete with destinations leveraging the complementary strengths offered by diverse attractions [18]. Digital-based tourist destinations provide new personalized experiences extracted from real-time data and the combination of digital transformation and the physical world, whereby even the same attractions will offer unique experiences to each visitor [19]. The main requirements for sustainable digital-based tourism development can be seen in Table 1 [16].

Table 1.
Requirements for Digital-based Sustainable Tourism Development.

Aspect	Program	Success Indicators
Digital Capability	• Gathering and retrieving information	• Utilizing high-quality information
	• Understanding the importance of presence on social media and digital marketing platforms	• Marketing products through social media and other marketing platforms
	• Creating text, visual displays, animations, audio, video, and other multimodal forms	• Creating, designing, distributing, and utilizing digital information
	• Integrating, interpreting, and representing information by adapting, applying, designing, and creating information	• Managing digital information for business purposes and building a good image
Financial Support	• Utilizing collaborative platforms and resource sharing	• Using and creating digital business platforms
	• Securing sustainable financial support adequate to realize programs	• Obtaining financial assistance or substantial support from various parties
Digital Infrastructure	• Developing an integrated business plan	• Offering attractive business packages
	• Establishing digital infrastructure support from relevant parties	• Good 4G infrastructure
Mentor Support	• Providing adequate digital equipment	• Laptops, smartphones, models, etc.
	• Building digital business platforms and ecosystems	• User-friendly digital business platforms
Policy Support	• Assisting the local community in developing digital skills	• Good digital literacy among human resources
	• Assisting the local community in running digital businesses	• Functional digital business platforms that integrate all stakeholders
Policy Support	• Formulating supportive policies from central and regional governments	• Support from local and central governments
	• Collaborating with local governments to develop smart tourism	• Smart village tourism programs

3.2. Sustainable Tourism Promotion Policy in the Riau Islands

The Provincial Government of the Riau Islands has integrated the priorities of Sustainable Development Goals (SDGs) into the Medium-Term Regional Development Plan (RPJMD) for the period 2016-2021, which are subsequently translated into the Regional Government Work Plan (RKPD) and the Regional Revenue and Expenditure Budget (APBD) documents. Broadly, there are 17 key points in the SDGs. Objectives related to the tourism sector are included in target 8.9, aiming by 2030 to develop and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.

Table 2.
Target 8 Decent work and economic growth

Indicator Code	Indicator Name	Data Source	Unit	Baseline	Target	Achievement	Note
8.9.1(a)	Number of foreign tourists visiting the Riau Islands	BPS, RPJMD	Person	2,037,673	2,400,000	408,005	Decreased due to COVID-19 pandemic
8.9.1(b)	Number of domestic tourists in the Riau Islands	KEMENPAR / DISPAR	Person	1,450,000	1,600,000	7,153,725	Increased
8.9.1(c)	Total tourist expenditure in the Riau Islands	BPS/ KEMENPAR/ DISPAR	Amount of forex income	N/A	7,740 billion	2.967 billion	Decreased due to COVID-19 pandemic

3.3. Dimensions and Evaluation Indicators of Tourist Destinations

The introduction of dimensions and evaluation indicators of tourism destinations is crucial for assessing the overall performance and impact. This comprehensive framework encompasses various aspects such as social, economic, environmental, and institutional management. Through the lenses of satisfaction levels, accessibility, environmental awareness, community participation, safety, income distribution, local economic support, conservation efforts, and institutional collaboration, stakeholders can effectively gauge the sustainability and viability of tourist destinations [20]. This framework provides a robust foundation for evaluating and improving tourism destinations worldwide (See Table 3).

Table 3.
Dimensions and Evaluation Indicators of Tourist Destinations.

Dimension	Indicator	References
Social	Level of satisfaction	Forje and Tchamba [21]
	Physical accessibility to services and facilities	Mallick, et al. [22]; Heshmati, et al. [23] and Sahani [24]
	Environmental awareness	Heshmati, et al. [23]; Sahani [24]
	Participation	García-Jiménez, et al. [25]; Sun, et al. [26]; Nabout, et al. [27]; Heshmati, et al. [23]; Sahani [24] and Forje and Tchamba [21]
	Security	García-Jiménez, et al. [25] and Heshmati, et al. [23]
	Income distribution	Forje and Tchamba [21]
	Empowerment and capacity building	García-Jiménez, et al. [25]
	Consumerism tendency	Mallick, et al. [22]
Economic	Local employment	Sahani [24]
	Local income	Forje and Tchamba [21]
	Local economic support	Mallick, et al. [22]; Sahani [24]
	Participation of local communities in environmental preservation	Nabout, et al. [27]; Heshmati, et al. [23]; Sahani [24] and Forje and Tchamba [21]
Environmental	Level of wildlife loss	Heshmati, et al. [23]
	Pollution	Heshmati, et al. [23]
	Construction not aligned with natural environment	Nabout, et al. [27]
	Conflict management	Forje and Tchamba [21]
	Air and soil pollution	Heshmati, et al. [23]
	Endangered species	García-Jiménez, et al. [25]; Nabout, et al. [27] and Heshmati, et al. [23]
	Water and energy consumption	Nabout, et al. [27]
	Local participation	Nabout, et al. [27]; Heshmati, et al. [23]; Sahani [24]
Institutional Management	Inter-sectoral cooperation	Mallick, et al. [22]; García-Jiménez, et al. [25]; Sun, et al. [26]; Heshmati, et al. [23]; Sahani [24] and Forje and Tchamba [21]
	Motivation and legal obligations for tourism developers	Mallick, et al. [22]; Sun, et al. [26]; Heshmati, et al. [23] and Sahani [24]

3.4. Tourism Growth Statistics in Batam City, Riau Islands

The Riau Islands Province has tourism potential in its natural wealth, cultural diversity, religious sites, and culinary offerings. Therefore, this sector is one of the leading sectors supporting economic growth to enhance regional competitiveness. However, tourism development policies are still suboptimal, as evidenced by the performance achievement of tourism development that still requires attention. Batam ranks second from the bottom in the list of provinces visited by domestic Indonesian tourists in 2022 (see Figure 2), and the number of tourist visits to Batam until November 2023 has not fully recovered from the impact of the COVID-19 pandemic (see Figure 3).

Based on data from the Medium-Term Regional Development Plan of the Riau Islands Province for the period 2021-2026, the number of foreign tourist arrivals to the Riau Islands Province in 2020 mostly entered through the city of Batam, totaling 299,158 people (73.32%), followed by Bintan Regency with 64,896 people (15.91%), Karimun Regency with 21,836 people (5.35%), and through Tanjungpinang City with 22,115 people (5.42%) (See Figure 3). However, due to the COVID-19 pandemic, the total number of foreign tourists entering the Riau Islands Province in 2020 decreased by 408,005 people. From all districts/cities, the entrances for foreign tourists experienced significant decreases; Batam City experienced an 84.64% decrease, Bintan Regency experienced the highest percentage decrease at 89.78%, Tanjungpinang City experienced an 86.94% decrease, and Karimun Regency experienced a 80.93% decrease (see Figure 4).



Figure 2. List of Provinces Visited by Domestic Indonesian Tourists in 2022.

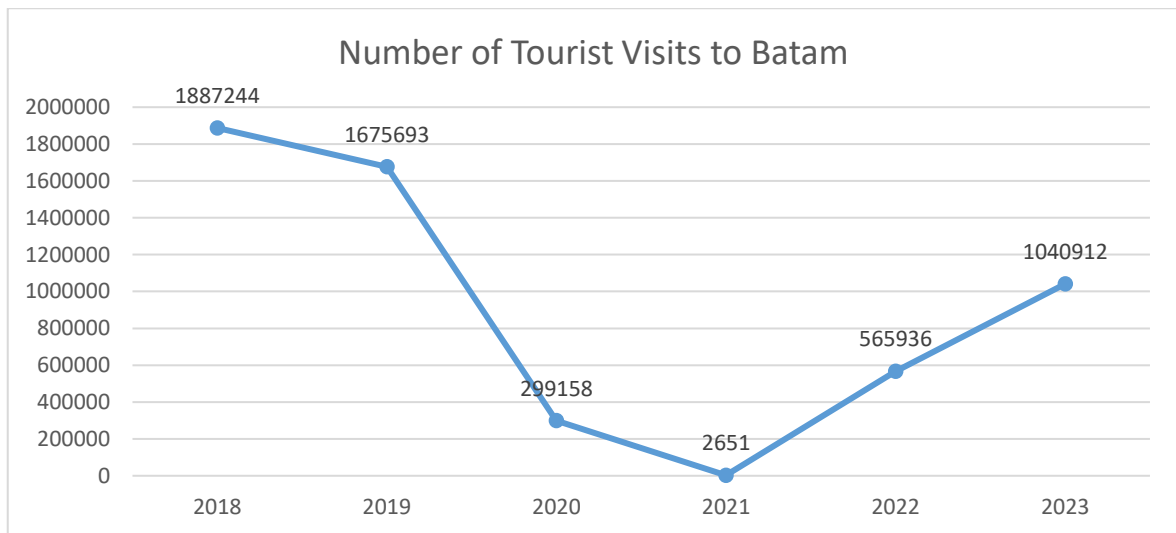


Figure 3. Number of Tourist Visits to Batam.
Source: BPS [28].

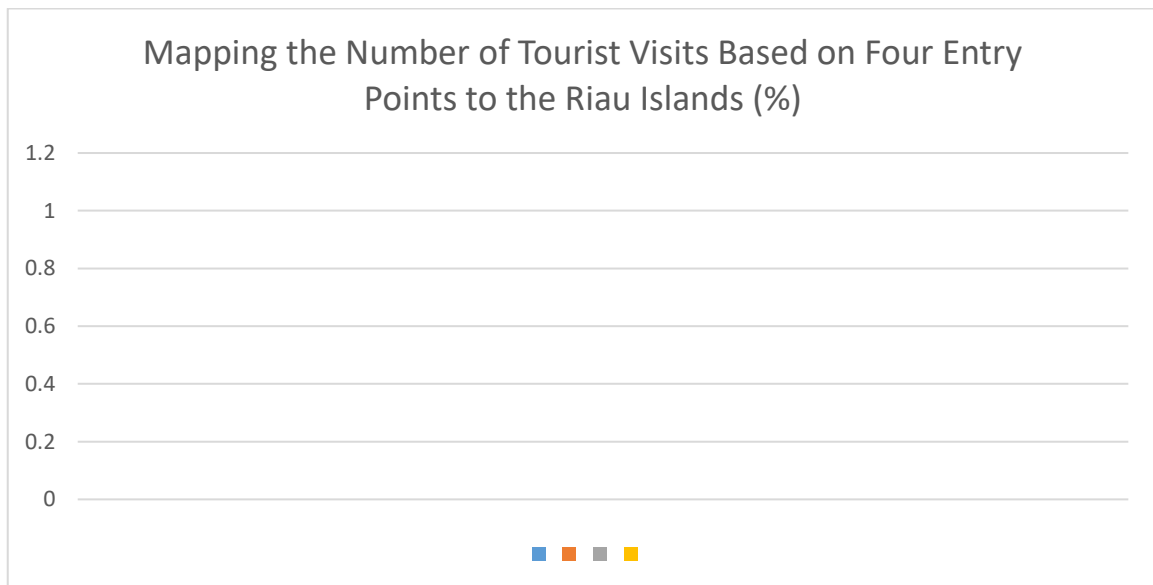


Figure 4. Mapping the Number of Tourist Visits Based on Four Entry Points to the Riau Islands (%)
Source: Riau Islands Provincial Tourism Office, 2021.

3.5. Targets and Directions for the Development of Batam City

The development of regions and cities in the Riau Islands Province is expected to achieve target indicators of development objectives, including economic growth, the percentage of the population below the poverty line, and the rate of open unemployment.

3.5.1. Development of Maritime Potential in Batam

Each district/city in the Riau Islands Province has its own characteristics and tourism potential. One of the tourism potentials that can be optimized is maritime tourism. Maritime tourism areas will be one of the attractions for domestic, national, and international tourists. This has been implemented into seven Regional Tourism Corridors that optimize maritime tourism. The direction of policy for maritime tourism development aims to bring about maritime-based tourism in the local community. This effort is crucial so that high tourist visits can create a multiplier effect for the local community. Thus, the local economy will grow, which is expected to narrow the gap between the national economic sector and the local economic sector, ultimately narrowing the gap between regions. On the other hand, support for maritime potential is manifested in the form of protection of potential resources. This protection includes protection against illegal fishing, unregulated fishing, unreported fishing, and overfishing. Marine pollution from hazardous waste from anchored ships, mangrove forest conversion, and other issues need to be addressed to align with the increase in maritime potential. Additionally, regulatory support for maritime industrial areas is essential.

3.5.2. Objectives and Targets of Batam City Area Development

The development goals for the Batam City area encompass a multifaceted approach aimed at positioning it as a pivotal hub for various sectors. Firstly, the objective is to establish Batam as a key player in international logistics, leveraging its strategic location and well-developed infrastructure to facilitate efficient movement of goods and materials across borders. Secondly, Batam aims to become a prominent destination for tourism, capitalizing on its natural beauty, cultural heritage, and diverse recreational offerings to attract visitors from around the globe. Furthermore, the city seeks to position itself as a hub for the aerospace industry, capitalizing on existing expertise and infrastructure to foster innovation and growth in this sector. Additionally, Batam aims to foster the development of digital and creative industries, recognizing the importance of technology and innovation in driving economic growth and job creation. Lastly, Batam aspires to establish itself as an international trade and finance center, facilitating global trade and investment flows while providing a conducive environment for financial services and transactions. Through these objectives, Batam endeavors to enhance its economic competitiveness, promote sustainable development, and improve the quality of life for its residents.

3.5.3. Batam City Area Development Policies

The development policies for Batam City area are outlined as follows:

1. Development of Local and International Transportation Routes: This involves improving and expanding transportation networks within Batam City to facilitate efficient movement of goods and people, as well as enhancing connectivity with international transportation routes to support trade and tourism.
2. Construction of Roads, Bridges, and Drainage Systems: This includes building and maintaining roads, bridges, and drainage systems to ensure smooth traffic flow, accessibility, and flood management within Batam City.
3. Development of Main Infrastructure and Supporting Industrial Activities: This entails the establishment and enhancement of essential infrastructure such as power supply, water supply, and telecommunications, to support industrial activities and overall economic development in Batam City.
4. Development of Special Economic Zones (SEZs): This involves the creation and development of designated areas within Batam City where special economic policies and incentives are implemented to attract investment, promote exports, and spur economic growth.
5. Development of Shipbuilding Industry, Port Services, Warehousing, Offshore, and Electronics: This focuses on fostering the growth and modernization of key industries such as shipbuilding, port services, warehousing, offshore activities, and electronics manufacturing within Batam City.
6. Development of Logistics Ports: This includes the establishment and improvement of ports and related infrastructure to support logistics operations, cargo handling, and distribution activities in Batam City.
7. Development of Industrial and Tourism Areas in Galang Rempang: This involves the development and promotion of industrial zones and tourist attractions in the Galang Rempang area of Batam City to stimulate economic growth and diversify the tourism offerings.
8. Positioning Batam as the Primary MICE Tourism Destination in Indonesia: This aims to promote Batam City as a leading destination for Meetings, Incentives, Conferences, and Exhibitions (MICE) tourism by providing world-class facilities, services, and incentives to attract business travelers and event organizers.
9. Facilitation and Acceleration of the Batam-Bintan Bridge Construction: This entails expediting the planning, approval, and construction process of the Batam-Bintan Bridge to improve connectivity between Batam City and Bintan Island, thereby enhancing economic integration and development.
10. Development of SMEs (Small and Medium Enterprises) and Creative Economy: This focuses on supporting the growth and sustainability of small and medium-sized enterprises (SMEs) and promoting the development of the creative economy sector through various initiatives such as training, funding, and infrastructure support.

3.6. Advocacy for Local Government Policy in Batam City

The vision of the Regional Head and Deputy Regional Head of the Riau Islands Province for the period 2021-2026 is as follows: "Realizing a Prosperous, Competitive, and Cultured Riau Islands"

This vision for the Riau Islands Province can be further interpreted as follows:

- Prosperous: Ensuring a more decent and prosperous life for the people of the Riau Islands.
- Competitive: Achieving a healthy society, government bureaucracy, and business environment that can compete and excel at the regional and international levels.
- Cultured: Establishing governance, development activities, and community engagement in the Riau Islands that are rooted in religious, Malay cultural, and national values.

In order to achieve this vision, five medium-term development missions for the Riau Islands Province for the period 2021-2026 have been established, as outlined in the Table 4.

Table 4.
Mission, Objectives, and Targets of the Provincial Government of the Riau Islands for the Period 2021-2026.

Mission	Objectives	Targets
1. Accelerating economic growth based on maritime, environmental awareness, and regional excellence to enhance community prosperity	1.1 Optimization of maritime potential, regional excellence, and environmental sustainability	1.1.1 Optimization of the fisheries sector 1.1.2 Enhancement of the tourism sector 1.1.3 Reduction of environmental pollution and degradation 1.1.4 Optimization of forest utilization
	1.2 Accelerating economic recovery and growth	1.2.1 Increase in Gross Regional Domestic Product (GRDP) in the construction, manufacturing, and trade sectors. 1.2.2 Increase in Regional Original Income (PAD) 1.2.3 Enhancement of agricultural sector utilization (food crops, horticulture, animal husbandry, and plantations)
2. Implementing clean, open, and service-oriented governance	2.1 Clean, strong, and anticipative governance	2.1.1 Implementation of open and integrated information technology-based governance 2.1.2 Capacity enhancement of governance 2.1.3 Professional management of civil servants 2.1.4 Responsive, agile, and resilient provincial government in disaster management 2.1.5 Public order and community protection
		3.1 Strengthening social safety nets
3. Achieving high-quality, healthy, and competitive human resources based on faith and piety	3.1 Strengthening social safety nets	3.1.1 Reduction of poverty rates 3.1.2 Resilient and participative rural communities
	3.2 Development of outstanding and character-based individuals	3.2.1 Improvement of public health status 3.2.2 Enhancement of the quality and access to education services 3.2.3 Improvement of the quality of life for women and children 3.2.4 Enhancement of youth capacity and quality
4. Developing and preserving Malay and national culture to support sustainable development	4.1 Religious development, cultural preservation, and societal harmony	4.1.1 Enhancement of Malay cultural preservation 4.1.2 Improvement of inter-religious harmony
		5.1 Acceleration of infrastructure development and inter-island integration
5. Accelerating inter-island connectivity and regional infrastructure development	5.1 Acceleration of infrastructure development and inter-island integration	5.1.1 Acceleration of basic infrastructure development 5.1.2 Development of inter-island and coastal areas

The alignment of the objectives and targets of the development of the Riau Islands Province with the Minister of Home Affairs Regulation Number 86 of 2017 can be seen in Table 5.

Table 5.

Alignment Between Objectives and Targets of the Riau Islands Provincial Government's Medium-Term Development Plan (RPJMD) with Minister of Home Affairs Regulation 86 of 2017 Related to the Tourism Sector

Criteria in Minister of Home Affairs Regulation Number 86 Year 2017	RPJMD Objectives of the Riau Islands Province	RPJMD Targets of the Riau Islands Province
Increase in Community Income	Objectives 1.1 and 1.2 demonstrate the government's efforts to enhance economic growth and leverage existing potentials. The expected continuous economic growth will directly impact the increase in community income.	RPJMD targets 1.1.1 - 1.1.3 and 1.2.1 and 1.2.3 focus on government support for economic sectors that drive community income, stimulating economic activity. These sectors include MSMEs, industry, agriculture, tourism, and fisheries.
Equitable Distribution of Community Income	Objectives 1.2 and 5.1 are the result of government efforts to achieve equitable distribution of community income. To achieve this, economic growth and the acceleration of regional infrastructure development are two essential conditions that must be established before community income can grow evenly.	Target 1.2.1 indicates government efforts to promote income distribution. The government's focus is not only on flagship sectors but also on various sectors that need continuous improvement to contribute to the economy. Meanwhile, Targets 5.1.1 - 5.1.2 indicate that infrastructure is a crucial requirement for achieving equitable distribution of community income. Good infrastructure development and connectivity will facilitate investment in various areas and contribute to the even growth of the economy and community income, especially in coastal areas.
Employment Opportunities	Objectives 1.1, 1.2, and 3.1 indicate that employment opportunities can be realized if a region continues to grow economically by leveraging all its potentials, leading to job creation and reducing poverty and open unemployment rates. Therefore, this is consistent with Objectives 1.1, 1.2, and 3.1, which focus on achieving economic growth and social safety nets for the people in the Riau Islands Province.	RPJMD targets 1.1.1 - 1.1.3, 1.2.1, 1.2.3, and 3.1.1 - 3.1.2 show the government's focus on improving development in various economic sectors, especially in the flagship sectors in the Riau Islands Province. Optimal management of various flagship sectors will attract investment, which will directly lead to increased job opportunities, reducing poverty and open unemployment rates.
Entrepreneurship	Opportunities Objectives 1.1 and 1.2 indicate that entrepreneurship opportunities are a condition of availability and ease of doing business created by the government for entrepreneurs. This is part of Objectives 1.1 and 1.2 aimed at enhancing economic growth.	RPJMD targets 1.1.1 - 1.1.3, 1.2.1, and 1.2.3 show that the government's focus on improving and enhancing the economic sector is not only supported by investment facilitation. Creating business opportunities for the community is also an important focus to be improved and developed in these targets. For example, in the tourism sector, opportunities in this sector are maximized to be optimally performed by various layers of society, from upstream to downstream.
Improving Access and Quality of Public Services	In accordance with Mission 2, which is the overarching concept of Objective 2.1, government based on public services can be achieved through clean, strong, and anticipatory governance. The maximal realization of this objective will align the quality of services provided with the quality of services expected and needed by the community.	Target 2.1.1 indicates the improvement of public service access to the community can be seen from how well government service information is made available to the public. This will assist the public in seeking and obtaining useful information. Therefore, the Riau Islands Provincial Government intends to increase this information transparency to ensure the public obtains information that meets various community needs.
Enhancing Regional Competitiveness	Objective 3.2 indicates that regional competitiveness can be achieved through the development of superior and character-based human resources. Superior human resources will be the driving force for regional	targets 3.2.1 - 3.2.4 and Targets 4.1.1 - 4.1.2 are aimed at building superior and character-based humans. Superior human resources are reflected in the realization of healthy, educated, and well-trained individuals. Meanwhile, character-based individuals are

Criteria in Minister of Home Affairs Regulation Number 86 Year 2017	RPJMD Objectives of the Riau Islands Province	RPJMD Targets of the Riau Islands Province
	development. This is in line with Objectives 3.2 and 4.1 in the RPJMD.	mentally and psychologically strong. All of these have been clearly formulated in all targets of Objectives 3.2 and 4.1.
Environmental Quality	Aside from human and economic development, environmental development is one of the important goals in this RPJMD. This is reflected in Objective 1.1, where the overall management of the region's potentials in the Riau Islands is carried out while still preserving and conserving the environment as part of collective and balanced development in the Riau Islands.	Target 1.1.4 is intended to ensure the realization of development that still considers environmental sustainability. This is because expansive and exploitative development, if not accompanied by monitoring and control of environmental impacts, will have negative long-term effects on the Riau Islands. Therefore, the Riau Provincial Government is committed to ensuring the monitoring and control of environmental sustainability remain holistic through the realization of this target.

The formulated strategies are then outlined and aligned with the predetermined targets according to their contexts. These strategies are intended as a general overview of the efforts that will be made to achieve those targets. The determination of strategies for each target can be seen in the following Table 6.

Table 6.
Tourism Sector Development Strategies in the Riau Islands.

Target	Strategy
1.1.2. Enhancement of the Tourism Sector	1.1.2.1. Development of tourism linkage networking among districts and cities. 1.1.2.2. Diversification of adaptive and environmentally responsive tourist attractions. 1.1.2.3. Enhancement of tourism promotion through various events utilizing media and information technology. 1.1.2.4. Development of strategic maritime-based tourism areas. 1.1.2.5. Development of maritime tourism. 1.1.2.6. Development of health-friendly tourism (tourism activity models during the pandemic). 1.1.2.7. Enhancement of capacity and quality of inclusive and sustainable creative economy actors. 1.1.2.8. Improvement of tourism destination quality.
4.1.1. Enhancement of Malay Cultural Preservation Development	4.1.1.1. Increasing community participation and collaboration in the development of culturally based local tourist attractions. 4.1.1.2. Enhancement of the capacity and quality of Human Resources and other cultural elements in Malay culture development.

3.7. Challenges in Regional Development Related to the Tourism Sector in the Riau Islands

The Riau Islands possess diverse attractions encompassing natural, human, and cultural aspects, making tourism a strategically significant activity for economic and socio-cultural development. Tourism fosters job creation, income growth, societal enhancement, and nurtures national cultural values while serving as a tool for environmental preservation. The performance of the tourism sector in the Riau Islands Province has been relatively favorable over the years. However, the COVID-19 pandemic has led to a decline in tourist numbers, especially international visitors, posing a challenge for the development of health-friendly tourism as a consequence of the COVID-19 era. Hence, there is a need to develop new tourist destinations to attract visitors, including cultural (historical), religious, natural, maritime, culinary, geopark, and other types of tourism attractions. The development of tourist destination sites requires support from flagship tourist attractions in districts and cities or vice versa, where these flagship attractions require facilitative support from the Provincial Government of the Riau Islands. This support may involve improving the quality and quantity of tourism-supporting infrastructure, providing incentives for tourism industry players, enhancing tourism promotion, and establishing tourism linkage networking among districts and cities to create a tourism brand for the Riau Islands Province. Moreover, cooperation and coordination among stakeholders in preparing tourism-supporting facilities and infrastructure, such as accommodations and transportation, are essential. Interestingly, tourist visits in the Riau Islands Province lack linkage with creative economic activities, unlike the national industry. The role of the Provincial Government of the Riau Islands is crucial in empowering the creative economy in tourist areas. Additionally, there is a need for facilitation for creative economic actors to collaborate with banking institutions in supporting the economy. In general, tourism-related challenges manifest in declining tourist arrivals, particularly international tourists, followed by a decrease in average length of stay and

hotel occupancy rates in the Riau Islands. Moreover, the tourism industry has been heavily impacted by the COVID-19 pandemic.

Table 7.
Challenges in Regional Development Related to the Tourism Sector in the Riau Islands.

Tourism-Related Challenges	Challenges within the Framework of the Creative Economy
Suboptimal development of tourist destination sites in the Riau Islands Province	Development, mentoring, and marketing of creative economic actors are needed
Facilitation is needed for flagship tourism in districts and cities	Empowerment of the creative economy in tourist areas
Development of health-friendly tourism as a consequence of the COVID-19 pandemic	Legal protection for the creative industry is needed
Improvement of quality and quantity of tourism-supporting infrastructure	Improvement of cooperation with banking institutions to support the economy
Incentives are needed for tourism industry players	
Enhancement of tourism promotion and tourism linkage networking among districts and cities to create a tourism brand for the Riau Islands Province	

3.8. Formulation of SWOT Strategy

The formulation of a SWOT strategy for Batam Island provides a comprehensive analysis of internal and external factors influencing tourism development in the region [29]. Internally, Batam boasts strategic strengths such as its geographical position, MICE potential, diverse culture, and rich history, yet it faces weaknesses like a lack of historical preservation awareness and inadequate infrastructure. Externally, opportunities like being the third-largest tourist destination in Indonesia and government policies favoring tourism growth are countered by threats such as the Covid-19 pandemic and unpredictable weather. Strategic recommendations include leveraging Batam's strengths to attract investors and visitors, addressing weaknesses through education and infrastructure improvement, capitalizing on opportunities to diversify tourism offerings, and mitigating threats through branding refinement, health protocol enhancement, and community engagement initiatives. This strategic framework aims to propel Batam towards becoming a vibrant and sustainable tourism hub in Indonesia.

Table 8.
Internal Factors.

Strength	Weakness
1. The advantageous geographical location of Batam Island.	1. Limited public awareness regarding historical preservation.
2. Batam's designation as a MICE destination.	2. Insufficient skilled workforce in the tourism sector.
3. Favorable geographic features, including picturesque islands, bolster marine tourism and coastal ecotourism.	3. Lack of preparedness in terms of destination facilities, infrastructure, cleanliness, and organization.
4. Rich marine resources contribute to seafood culinary tourism.	4. Inadequate distribution of infrastructure across Batam Island, such as clean water and electricity.
5. Diverse ethnicities and cultures among the local population support cultural and religious tourism.	5. Not all tourist destinations are accompanied by high-quality products and services.
6. Batam's rich Malay history and the Vietnamese Village heritage contribute to historical tourism.	6. Traditional arts may not appeal to the younger generation of Batam City.

Table 9.
External Factors.

Opportunities	S-O Strategy	W-O Strategy
Batam ranks as the 3rd largest tourist destination in Indonesia, following Jakarta and Bali.	The strategic location of Batam as an island and its status as a major Meetings, Incentives, Conferences, and Exhibitions (MICE) destination make it highly appealing for tourists and investors alike. Leveraging government policies supporting Free Trade Zones (FTZ) further enhances the attractiveness of Batam for tourism and investment activities.	Organizing regular educational campaigns targeting the public, especially the youth, to promote awareness about Batam's culture and history through mediums like webinars, seminars, social media promotions, and cultural events can foster a deeper appreciation for the city's heritage and attract more visitors and investors.
Batam is positioned as an investment hub spearheaded by BP Batam.	The proactive efforts of BP Batam in positioning Batam as an investment paradise create favorable conditions for economic growth and development.	Conducting training programs to upskill the local workforce and recruit qualified professionals proficient in harnessing Batam's potential can drive the city's Gross Regional

Opportunities	S-O Strategy	W-O Strategy
	Diverse touristic offerings, including marine, eco, cultural, religious, culinary, and historical tourism, have the potential to significantly boost tourist arrivals and attract more investors to explore opportunities in Batam.	Domestic Product (GRDP) and uplift the surrounding economy.
Implementation of Free Trade Zone (FTZ) policies.	The establishment of FTZ policies presents advantageous conditions for trade and investment activities, contributing to the overall appeal of Batam as a tourist and investment destination.	Addressing deficiencies in infrastructure, cleanliness, and the quality of tourist facilities and services by mobilizing local government and relevant agencies to allocate budgets and attract investments aimed at enhancing the overall quality of tourist attractions in Batam. Setting clear standards and benchmarks for tourist destinations can elevate Batam to become the "Singapore of Indonesia."

Table 10.
Challenges.

Threat	S-T Strategy	W-T Strategy
<ol style="list-style-type: none"> 1. Suboptimal publication of Batam's tourism branding, "Batam Tourist." 2. The Covid-19 outbreak. 3. Erratic weather in Batam. 4. Global and national economic conditions. 	<ol style="list-style-type: none"> 1. Batam Tourist branding, representing the full potential of the Batam area, requires restructuring with an appealing and memorable logo and slogan. Intensified promotional efforts are necessary to enhance visibility. 2. Further enhancement of health protocols and security measures at tourist destinations through the implementation of CHSE (Cleanliness, Health, Safety, Environmentally Sustainable) standards is essential. Certification of compliance with health standards by hotels should be ensured. 3. Development of a Batam city tourism application featuring various functionalities, including weather forecasts, tourist maps, distances, pricing, facilities, online bookings, and currency exchange rates, can mitigate the impact of weather fluctuations on tourist interest. The app can also indirectly track the spread of Covid-19. 	<ol style="list-style-type: none"> 1. Selection of Batam city representatives, including community members and students, as Batam tourism ambassadors, as done in early 2021, can enhance public awareness and interest, particularly among the younger generation, in promoting Batam city tourism. 2. Quality training and recruitment initiatives should be implemented to advance Batam tourism. 3. Socialization efforts and the establishment of associations among destination owners, culinary traders, and other MSMEs in the tourism sector can collectively improve quality and services, ensuring compliance with regulations to boost tourist confidence.

4. Conclusion

This study sheds light on the intricate dynamics of tourism development in Batam City, Riau Islands, Indonesia. Despite the sector's potential for economic growth, challenges stemming from governmental underdevelopment and private sector dominance persist. The findings highlight the importance of effective policy advocacy and implementation, particularly in the realm of digital-based sustainable tourism. Through a comprehensive assessment of various factors such as digital capability, financial support, infrastructure, mentorship, and policy alignment, this study offers valuable insights into the current state of tourism in Batam City. The analysis of target indicators related to economic growth and work opportunities underscores the need for holistic approaches to tourism development. Aligning local government policies with provincial development goals is crucial for fostering a conducive environment for sustainable tourism growth. The identified strategies and challenges provide a roadmap for addressing existing limitations and capitalizing on emerging opportunities. The SWOT analysis highlights internal strengths and weaknesses, as well as external opportunities and threats, shaping Batam's tourism landscape. Leveraging strengths, addressing weaknesses, seizing opportunities, and mitigating threats are essential steps in positioning Batam as a vibrant and sustainable tourism hub in Indonesia. In essence, this study contributes to the ongoing discourse on tourism development by providing actionable recommendations for stakeholders to collaborate effectively, harnessing Batam's potential for sustainable growth and prosperity in the tourism sector.

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