

# Identifying the Components of Business Development Related to the Tourism Industry with an Emphasis on Sustainable Development: A Case Study of Kish Island

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## ABSTRACT

The present study was conducted with the aim of identifying and prioritizing the components of tourism business development on Kish Island within the framework of the sustainable development paradigm. From a methodological perspective, this applied research adopts an exploratory mixed-methods approach. In the qualitative phase, using a grounded theory strategy, 12 in-depth interviews were conducted with academic experts, officials of the free trade zone, and private-sector entrepreneurs. Data analysis was performed using MAXQDA software through three stages of open, axial, and selective coding, which resulted in the extraction of 36 key factors. Based on these findings, a researcher-developed questionnaire grounded in a five-point Likert scale was designed and distributed among 50 managers and practitioners in the tourism industry. Content validity was confirmed by experts, and reliability was verified with a Cronbach's alpha coefficient exceeding 0.70. Quantitative analyses and evidence-based synthesis indicated that among the 36 factors, six core factors play the most significant role in the sustainability and resilience of tourism businesses on Kish Island. In order of importance, these factors include: "digital marketing, branding, and online reservation systems" ( $M = 4.75$ ), "development of hotels and accommodation facilities in compliance with environmental standards" ( $M = 4.30$ ), "environmental management and protection of natural resources and coral reefs" ( $M = 4.25$ ), "development of sustainable recreational activities and thematic tours" ( $M = 4.15$ ), "development of sustainable and low-emission transportation systems" ( $M = 4.10$ ), and "financial support and facilitation of licensing for resilient businesses" ( $M = 4.05$ ). The findings demonstrate substantial convergence with existing theoretical foundations in the fields of sustainable development, institutional theory, networks, and technological innovation, while simultaneously highlighting the prominent role of digital technologies and marketing capacities within the local context of Kish Island. Accordingly, the results underscore the necessity of adopting a systemic approach to policymaking that simultaneously pursues targeted investment in digital and transportation infrastructures, strengthens environmental standards in accommodation facilities, enhances institutional capacity, and provides financial incentives, in order to preserve the ecosystem while ensuring economic resilience and the equitable distribution of benefits derived from tourism businesses.

**Keywords:** Sustainable development; tourism business; digital marketing; Kish Island.

## Introduction

Tourism has become one of the most dynamic sectors of the global economy and a key driver of regional development, employment generation, and socio-economic transformation. Over recent decades, the expansion of



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tourism activities has increasingly been accompanied by growing concerns regarding environmental degradation, social inequality, and the long-term viability of destinations, which has led scholars and policymakers to emphasize the concept of sustainable development as a guiding framework for tourism planning and management (1, 2). Sustainable tourism development seeks to balance economic growth with environmental protection and social equity, ensuring that tourism-related benefits are distributed fairly while natural and cultural resources are preserved for future generations (3, 4). In this context, tourism businesses are no longer assessed solely based on short-term profitability, but also in terms of their resilience, adaptability, and contribution to sustainable destination development.

The role of tourism businesses as core operational units within destinations has attracted considerable scholarly attention, as these enterprises directly shape tourist experiences, influence destination image, and determine the intensity of environmental and social impacts (5, 6). Small and medium-sized tourism enterprises, in particular, are recognized as critical actors in advancing sustainability initiatives due to their close interaction with local communities and ecosystems (3, 7). However, these businesses often face structural constraints, limited access to finance, regulatory complexities, and technological gaps that hinder their ability to adopt sustainable practices and remain competitive in volatile tourism markets (8, 9). Consequently, identifying the key components and drivers that support sustainable tourism business development has become an essential research priority.

Infrastructure development is widely acknowledged as a foundational element in tourism growth and competitiveness. Investment in transportation systems, accommodation facilities, and public amenities not only enhances accessibility and service quality but also significantly affects tourist satisfaction and destination attractiveness (5, 10). Recent studies demonstrate that sustainable and low-emission transportation systems, energy-efficient accommodation, and smart infrastructure can simultaneously improve economic performance and reduce environmental pressures (4, 11). In island destinations, where ecological sensitivity and spatial constraints are particularly pronounced, infrastructure decisions play a decisive role in shaping sustainable tourism trajectories (12, 13).

Alongside physical infrastructure, environmental management has emerged as a central pillar of sustainable tourism development. Coastal and island destinations are especially vulnerable to environmental hazards such as coral bleaching, coastal erosion, and waste accumulation, which can undermine the long-term viability of tourism activities (14, 15). Empirical evidence underscores that proactive environmental governance, ecosystem protection, and the integration of sustainability standards into tourism operations contribute to destination resilience and enhance tourists' environmental perceptions (16, 17). Therefore, tourism business development strategies must be closely aligned with environmental conservation policies to ensure ecological integrity and sustained competitiveness.

In parallel, the evolution of marketing and digital technologies has fundamentally transformed the structure of tourism markets and business models. Digital marketing, online reservation systems, and platform-based services have become indispensable tools for destination promotion, customer engagement, and value creation (18, 19). The growing adoption of smart tourism technologies has been shown to strengthen destination loyalty, improve service personalization, and increase operational efficiency (11, 19). Moreover, digital maturity is increasingly associated with tourism business resilience, as it enables firms to respond more effectively to market disruptions and changing consumer preferences (9, 20). These developments highlight the strategic importance of digital infrastructure and marketing capabilities in sustainable tourism business development.

Institutional and regulatory environments further shape the opportunities and constraints faced by tourism businesses. Supportive policies, streamlined licensing procedures, and targeted financial incentives can significantly reduce entry barriers and encourage entrepreneurial activity within tourism destinations (8, 21). Institutional theory suggests that coherent governance structures and effective coordination among public and private stakeholders enhance destination competitiveness and facilitate the diffusion of sustainable practices (5, 22). In this regard, social capital, inter-organizational networks, and trust-based relationships play a crucial role in fostering innovation and collective action among tourism businesses (22, 23).

The concept of resilience has gained increasing prominence in tourism research, particularly in light of economic shocks, environmental crises, and global disruptions. Tourism business resilience refers to the capacity of enterprises to absorb disturbances, adapt to changing conditions, and recover while maintaining core functions (9, 20). Studies indicate that resilience is closely linked to diversification of tourism products, adoption of sustainable practices, access to financial resources, and the use of digital technologies (4, 16). Consequently, resilience-oriented development frameworks emphasize the integration of sustainability, innovation, and adaptive governance into tourism business strategies.

From a socio-cultural perspective, tourism development must also consider community involvement, cultural heritage preservation, and social entrepreneurship. Community-based tourism and inclusive business models have been shown to enhance local participation, strengthen social cohesion, and ensure that tourism benefits are more equitably distributed (7, 20). Furthermore, heritage tourism sustainability depends on effective management of cultural assets and alignment with local values and identities (17, 24). These dimensions underscore that sustainable tourism business development extends beyond economic and environmental considerations to encompass social and cultural sustainability.

Within the Iranian context, tourism has been recognized as a strategic sector for economic diversification and regional development. However, structural challenges such as regulatory rigidity, limited international integration, and uneven infrastructure development continue to constrain tourism business growth (8, 13). Kish Island, as a free trade zone and one of Iran's most prominent tourism destinations, occupies a unique position in national tourism policy. Its geographic location, coastal and marine resources, and relative institutional autonomy provide significant potential for sustainable tourism development (12, 25). At the same time, environmental vulnerabilities, pressure on coral ecosystems, and growing competition from regional destinations necessitate more strategic and sustainability-oriented business development approaches (14, 15).

Previous studies on Kish Island have addressed specific aspects such as destination image, branding, environmental hazards, and tourism positioning in comparison with regional competitors (12, 13, 25). Other research has explored the development of water sports and recreational tourism, highlighting the economic significance of marine-based activities for the island (26). While these studies provide valuable insights, they often focus on isolated dimensions and do not offer an integrated framework that captures the multifaceted components of sustainable tourism business development and resilience.

Moreover, the evolving global tourism landscape, characterized by digital transformation, sustainability imperatives, and heightened competition, requires destination-specific analyses that account for local institutional, environmental, and market conditions (4, 11). Comparative and international studies emphasize that successful tourism destinations are those that adopt systemic approaches, combining infrastructure investment, environmental management, digital innovation, and supportive governance (10, 20). Accordingly, there is a growing need for

empirical research that identifies and prioritizes the key components of tourism business development within specific destination contexts, particularly in sensitive island environments.

Methodologically, mixed-methods approaches have been increasingly advocated in tourism research to capture both the depth of qualitative insights and the generalizability of quantitative findings (9, 27). Exploratory mixed-method designs are particularly suitable for complex phenomena such as sustainable tourism development, where multiple interrelated factors and stakeholder perspectives must be integrated into a coherent analytical framework (27, 28). Such approaches enable researchers to identify latent components through expert knowledge and subsequently assess their relative importance through empirical measurement.

In light of these considerations, this study seeks to address an important research gap by systematically identifying and prioritizing the components influencing the development of tourism-related businesses on Kish Island with an emphasis on sustainable development and resilience, drawing on theoretical perspectives from sustainable development, institutional theory, digital transformation, and tourism resilience (3, 4, 9). The integration of environmental, infrastructural, managerial, and technological dimensions aims to provide a comprehensive and context-sensitive framework that can inform both academic inquiry and practical policymaking.

Accordingly, the aim of this study is to identify and prioritize the key components of tourism business development on Kish Island within the framework of sustainable development and business resilience.

## Methods and Materials

The present study is classified as *applied* in terms of purpose and is based on an *exploratory mixed-methods* approach in terms of implementation. Within this research design, the conceptual model and latent components of the phenomenon are first identified through qualitative methods, and their relative importance is then assessed using quantitative techniques.

To achieve an in-depth identification of the components influencing the development of tourism-related businesses with an emphasis on sustainable development on Kish Island, the first phase of the study employed a qualitative approach using the grounded theory strategy (Daie-Nabi & Ebrahimi, 2021). The qualitative population consisted of experts and key stakeholders in the tourism sector of Kish Island, including tourism business managers, tourism specialists, and representatives of decision-making institutions. Sampling was conducted purposively using the snowball technique.

In total, 12 semi-structured interviews were conducted. The interview guide was developed based on a review of the literature and the research objectives, and the questions focused on identifying influential factors, challenges, opportunities, and mechanisms for enhancing the developability of tourism businesses within a sustainability framework. All interviews were audio-recorded after obtaining informed consent from the participants and subsequently transcribed verbatim. The average duration of each interview was approximately 50 minutes.

Data analysis was carried out using MAXQDA software and followed the three-stage coding process of grounded theory:

- (1) open coding to extract initial concepts from the interview texts,
- (2) axial coding to categorize and relate associated codes into conceptual categories, and
- (3) selective coding to identify core components and consolidate the conceptual framework.

Through this process, a total of 36 open components were extracted, which were subsequently aggregated and conceptually organized into six core components in the next stage.

To enhance the credibility and trustworthiness of the qualitative findings, a set of methodological rigor strategies was employed. Accordingly, the coding and data analysis process underwent peer review, meaning that the extracted codes and categories were examined by at least two independent researchers. Any discrepancies were resolved through analytical discussion and the achievement of scholarly consensus. This approach contributed to reducing individual bias and increasing interpretive accuracy.

Furthermore, to ensure consistency and alignment of the findings, the results derived from the interview analysis were compared and aligned with secondary evidence and findings from prior studies in the fields of sustainable development and tourism. This comparative process strengthened the conceptual coherence of the categories and enhanced the validity of the research results. In addition, to ensure accurate representation of participants' perspectives and experiences, member checking was applied. Specifically, a summary of the extracted components and findings was shared with several interviewees and tourism experts, and their corrective feedback was incorporated into the finalization of the categories.

Finally, to increase transparency and traceability of the research process, all stages of data collection and analysis were systematically documented. This documentation included the preservation of interview audio files, transcribed texts, researchers' analytical memos, and coding files, which enabled tracking of the analytical pathway and re-evaluation of the findings, thereby strengthening the robustness of the qualitative results.

The final output of the qualitative phase comprised a list of 36 open components and their integration into six core components. These core components were established as the conceptual framework of the study and served as the basis for designing the questionnaire items in the quantitative phase.

In the second phase of the study, and in order to prioritize the components identified in the qualitative phase, a quantitative survey-based method was employed. The statistical population of this phase included practitioners, managers, and experts in the tourism sector on Kish Island who possessed sufficient knowledge and experience in tourism activities and related business development.

The data collection instrument was a researcher-developed questionnaire designed based on the results of the qualitative phase. The six core components extracted from the qualitative analysis formed the foundation of the questionnaire design, and a set of items was developed for each component. Responses were measured using a five-point Likert scale. Content validity of the questionnaire was assessed through expert review by specialists in tourism and research methodology, and necessary revisions were applied. The reliability of the questionnaire was evaluated using Cronbach's alpha coefficient, which was calculated as 0.76 for the entire instrument, indicating acceptable reliability. The sample consisted of 50 eligible individuals from the target population, selected through purposive convenience sampling. Given the applied nature of the study and limitations in access to the target population, the sample size is considered acceptable within the context of similar domestic studies. The collected data were analyzed using descriptive and inferential statistics. In the descriptive statistics section, indices such as the mean were calculated to describe the status of each component. All statistical analyses were conducted using SPSS software.

## Findings and Results

In this study, 36 key factors influencing the development of tourism businesses on Kish Island were identified, which, from the perspective of domain experts, are of high importance. The findings indicate that these factors

encompass a diverse range of dimensions, including infrastructure, services, policies and regulations, human resources, marketing, and technology.

**Table 1. Open Coding: Components and Drivers Affecting the Development of Tourism Businesses on Kish Island**

No.	Components and Drivers
1	Development of welfare facilities, including restrooms, green spaces, cafés, and restaurants in the Nobonyad, Damoon, and Mirmohanna areas
2	Development of pedestrian and bicycle paths along coral beaches and tourist areas
3	Introduction and use of electric taxis to reduce pollution and improve internal transportation
4	Construction of a tram system and expansion of the public transportation network between high-traffic areas of the island
5	Development of standard hotels and accommodation facilities near beaches and recreational areas
6	Upgrading and improving restaurants and cafés with local and international menus in shopping and tourism centers
7	Establishment and enhancement of water sports facilities, including diving, jet skiing, and recreational boating
8	Development of parks and public green spaces in Nobonyad, Damoon, and the main squares of the island
9	Establishment of small shopping centers focused on handicrafts and local souvenirs
10	Development of medical centers and clinics dedicated to tourists
11	Organization of cultural and recreational events at piers and beaches
12	Design of thematic tours such as cultural, heritage, marine, and nature-based tourism
13	Provision of specialized tourism packages for families, youth, and international tourists
14	Provision of tax incentives and supportive policies for start-up tourism businesses
15	Support for investment in boutique hotels, restaurants, and marine recreational activities
16	Facilitation of licensing for the establishment of restaurants, cafés, tour operations, and tourism service offices
17	Enhancement of security in high-traffic tourist areas through CCTV and dedicated patrols
18	Establishment of crisis management and rapid emergency response systems in beaches and recreational areas
19	Training of hotel staff and tourism service offices in customer service and foreign languages
20	Promotion of a culture of friendly service and professional interaction with tourists
21	Recruitment of specialized agents in tourism marketing and management
22	Development of specialized tours such as diving tours in the Persian Gulf and ecotourism in protected areas
23	Restoration and preservation of the island's historical buildings and heritage sites (e.g., Elite Palace)
24	Development of marine sports and tourism such as surfing, boating, and parasailing
25	Design of integrated tourism packages combining shopping, recreation, and cultural experiences
26	Waste management and waste separation in high-traffic tourist areas
27	Development of sustainable tourism in compliance with environmental standards and coral protection
28	Provision of tourism information through applications and smart signage in multiple languages
29	Establishment of online reservation systems for hotels, tours, and recreational activities
30	Targeted digital marketing on social media platforms and tourism websites
31	Establishment of online payment systems and digital wallets for tourism services
32	Collaboration with domestic and international travel agencies for combined and group tours
33	Development of unions and associations for tourism businesses to expand cooperation networks
34	Attraction of foreign investment for hotels, recreational centers, and international brands
35	Development of maritime transportation between Kish Island and neighboring islands or southern cities
36	Strengthening advertising and branding of Kish Island as a luxury, family-oriented, and recreational tourism destination

Through analysis of the factors influencing the development of tourism businesses on Kish Island, with a focus on the principles of sustainable development and resilience, six core factors were identified that play a strategic role in the growth and sustainability of this sector. These factors include the development of sustainable and low-emission transportation, the development of environmentally oriented hotels and accommodation facilities, the development of sustainable recreational activities and thematic tours, environmental management and protection of natural resources, financial support and facilitation of licensing for resilient businesses, and digital marketing and online reservation systems with a focus on sustainable tourists.

These factors, by creating appropriate infrastructure, delivering high-quality services, protecting the environment, and improving the tourist experience, provide the foundation for sustainable economic growth, business resilience, and increased attractiveness of Kish Island as a green and sustainable tourism destination.



**Table 2. Axial Coding: Core Factors**

No.	Core Factors
1	Development of sustainable and low-emission transportation (electric taxis and vehicles, trams, and public transportation)
2	Development of hotels and accommodation facilities in compliance with environmental standards and energy efficiency
3	Development of sustainable recreational activities and thematic tours (ecotourism and marine tourism with ecosystem preservation)
4	Environmental management and protection of natural resources and coral reefs
5	Financial support and facilitation of licensing for resilient tourism businesses capable of withstanding crises
6	Digital marketing, branding, and online reservation systems with a focus on attracting sustainable tourists

By examining the core factors of sustainable development and tourism resilience on Kish Island, six key factors were identified that can be classified into two general categories: (1) infrastructural and environmental factors and (2) managerial and business development factors. The infrastructural and environmental category includes factors related to infrastructure improvement, environmental conservation, and the development of sustainable recreation, whereas the managerial and business development category encompasses factors that strengthen the resilience and growth of tourism businesses through financial support, licensing facilitation, and digital marketing. This classification provides a comprehensive and strategic perspective on the principal axes of tourism development and related businesses on Kish Island.

Based on the analysis of data from 50 Likert-scale questionnaires and the calculation of descriptive statistics, the six core factors influencing tourism business development on Kish Island were prioritized. The mean scores indicate that “digital marketing, branding, and online reservation systems” hold the highest importance from respondents’ perspectives and are considered a key factor in attracting sustainable tourists and enhancing business resilience. Other factors, including the development of hotels and accommodation facilities, environmental management, development of sustainable recreation, development of sustainable transportation, and financial support for businesses, were prioritized sequentially based on their mean values. This analysis demonstrates that focusing on digital infrastructure and marketing can have a substantial impact on the sustainable growth of tourism on Kish Island.

**Table 3. Ranking of Core Factors**

Rank (Priority)	Mean	Core Factor
1	4.75	Digital marketing, branding, and online reservation systems focused on attracting tourists
2	4.30	Development of hotels and accommodation facilities in compliance with environmental standards
3	4.25	Environmental management and protection of natural resources and coral reefs
4	4.15	Development of sustainable recreational activities and thematic tours
5	4.10	Development of sustainable and low-emission transportation
6	4.05	Financial support and facilitation of licensing for resilient and crisis-resistant businesses

## Discussion and Conclusion

The findings of the present study provide a comprehensive and empirically grounded understanding of the key components influencing the development of tourism-related businesses on Kish Island within the framework of sustainable development and resilience. By integrating qualitative insights from experts with quantitative prioritization, the results reveal that tourism business development in this island context is a multidimensional phenomenon shaped by infrastructural, environmental, managerial, and technological factors. The identification of six core factors—digital marketing and online reservation systems, environmentally compliant accommodation development, environmental management and resource protection, sustainable recreational and thematic tourism development, sustainable transportation, and financial support with licensing facilitation—demonstrates that

sustainable tourism business growth is contingent upon the simultaneous alignment of hard and soft development dimensions.

Among the identified factors, digital marketing, branding, and online reservation systems emerged as the highest-priority component. This finding underscores the growing centrality of digital transformation in tourism markets, where visibility, accessibility, and real-time interaction with tourists have become decisive competitive advantages. The prominence of this factor is consistent with evidence showing that digital marketing strategies and smart tourism technologies significantly enhance destination loyalty, customer engagement, and business performance (18, 19). Moreover, digital maturity enables tourism businesses to respond more effectively to market volatility and external shocks, thereby strengthening organizational resilience (9, 11). In the context of Kish Island, where tourism demand is increasingly shaped by online platforms and digital content, the prioritization of this factor reflects both global tourism trends and local market realities.

The second-ranked factor, development of hotels and accommodation facilities in compliance with environmental standards, highlights the dual economic and ecological role of accommodation infrastructure. Environmentally oriented hotels not only reduce resource consumption and environmental footprints but also enhance destination image and attract environmentally conscious tourists. This result aligns with studies demonstrating a positive relationship between sustainability initiatives in small and medium tourism enterprises and their operational and financial performance (3, 16). Given the ecological sensitivity of island destinations, energy efficiency, waste reduction, and environmentally responsible design are particularly critical, reinforcing the need for sustainability-oriented investment strategies in Kish Island's accommodation sector (12).

Environmental management and protection of natural resources, including coral reefs, ranked as the third most important factor, emphasizing the foundational role of ecological integrity in sustaining tourism development. The vulnerability of Kish Island's marine ecosystems to pollution, coral bleaching, and unregulated tourism activities has been well documented, and environmental degradation poses a direct threat to the long-term viability of tourism businesses (14, 15). The study's findings corroborate the argument that proactive environmental governance and ecosystem protection are not merely ethical or regulatory imperatives but also strategic economic considerations for tourism destinations (4, 17). By prioritizing environmental management, tourism businesses and policymakers can enhance destination resilience and preserve the natural assets that underpin the tourism economy.

The development of sustainable recreational activities and thematic tours, ranked fourth, reflects the importance of product diversification and experience innovation in tourism business resilience. Thematic tourism products such as ecotourism, marine tourism, and cultural heritage tours contribute to extending tourists' length of stay, increasing expenditure, and reducing dependency on mass tourism models. Prior research indicates that diversified and experience-based tourism offerings enhance destination competitiveness and distribute tourism benefits more evenly across local communities (7, 17). In the case of Kish Island, the emphasis on sustainable recreation is particularly relevant given the island's marine resources and cultural assets, which, if managed responsibly, can support long-term economic growth while minimizing environmental pressures (26).

Sustainable and low-emission transportation systems were identified as the fifth priority, highlighting the role of mobility infrastructure in shaping both tourist experiences and environmental outcomes. Transportation systems influence accessibility, congestion, air quality, and overall destination satisfaction. Investment in electric vehicles, public transportation, and low-emission mobility solutions aligns with broader sustainability goals and contributes to reducing the environmental footprint of tourism activities (4, 10). In island destinations, where spatial limitations



amplify the impacts of traffic congestion and pollution, sustainable transportation development is particularly critical for balancing tourism growth with environmental protection (12).

The sixth factor, financial support and facilitation of licensing for resilient tourism businesses, underscores the importance of the institutional and regulatory environment in enabling sustainable business development. Access to financial incentives, simplified licensing procedures, and supportive governance structures can significantly reduce barriers to entry and encourage innovation within the tourism sector. Institutional analyses of Iran's tourism industry emphasize that regulatory complexity and limited access to finance remain major constraints on entrepreneurship and business resilience (8, 21). The findings of this study align with institutional theory, which posits that coherent and enabling policy frameworks enhance destination competitiveness and foster the diffusion of sustainable practices (5, 22).

Collectively, the six core factors identified in this study illustrate the interdependence of infrastructural, environmental, managerial, and technological dimensions of tourism business development. The classification of these factors into infrastructural–environmental and managerial–business development categories provides a strategic lens for understanding how tangible investments and governance mechanisms interact to shape sustainable tourism outcomes. This systemic perspective is consistent with prior research emphasizing that sustainable tourism development requires integrated approaches that transcend sectoral silos and align public and private stakeholder interests (2, 20). The findings also resonate with resilience-oriented frameworks, which highlight the importance of diversification, innovation, and adaptive capacity in enabling tourism businesses to withstand and recover from crises (9).

Within the specific context of Kish Island, the results contribute to the existing literature by offering an integrated and prioritized framework that builds upon earlier studies focused on destination image, branding, and environmental challenges (13, 25). By synthesizing expert knowledge and empirical data, the study advances understanding of how sustainable development principles can be operationalized at the business level in a free trade zone and island destination. Moreover, the emphasis on digital marketing and environmental stewardship reflects the evolving global tourism landscape, where destinations compete not only on physical attractions but also on digital visibility, sustainability credentials, and experiential quality (4, 6).

Overall, the discussion of findings suggests that sustainable tourism business development on Kish Island depends on a balanced and coordinated strategy that integrates digital transformation, environmental conservation, infrastructure investment, and supportive governance. Such an approach can enhance the island's competitiveness, strengthen business resilience, and ensure that tourism growth contributes to long-term economic, environmental, and social sustainability.

Despite its contributions, this study has several limitations that should be acknowledged. First, the quantitative phase relied on a relatively small sample size, which may limit the generalizability of the findings beyond the specific context of Kish Island. Second, the study focused primarily on expert and practitioner perspectives, and did not directly incorporate tourists' perceptions or community-level viewpoints, which may provide additional insights into sustainable tourism dynamics. Third, the cross-sectional design of the quantitative analysis restricts the ability to capture temporal changes in priorities or the long-term impacts of sustainability initiatives. Finally, although the mixed-methods approach enhanced depth and rigor, the interpretation of qualitative data may still be influenced by contextual and researcher-related subjectivities.

Future research could expand upon the present study by employing larger and more diverse samples, including tourists, local residents, and policymakers, to obtain a more holistic understanding of sustainable tourism business development. Longitudinal studies are recommended to examine how the relative importance of the identified factors evolves over time and in response to external shocks or policy interventions. Comparative studies between Kish Island and other island or free-zone destinations could also provide valuable insights into contextual similarities and differences. Additionally, future research may apply advanced quantitative techniques, such as structural equation modeling or system dynamics, to explore causal relationships among the identified components and assess their combined effects on tourism business performance and resilience.

From a practical perspective, policymakers and destination managers should adopt a systemic and integrated approach to tourism development that simultaneously addresses digital infrastructure, environmental protection, sustainable transportation, and institutional support. Investment in digital marketing platforms and online reservation systems should be prioritized to enhance destination visibility and business competitiveness. Environmental standards and monitoring mechanisms need to be strengthened to safeguard natural resources and ensure long-term tourism viability. Facilitating access to finance and simplifying licensing procedures can encourage entrepreneurship and innovation within the tourism sector. Finally, fostering collaboration among public authorities, private businesses, and local communities can enhance collective capacity, improve governance effectiveness, and support the sustainable and resilient development of tourism businesses on Kish Island.

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### **Authors' Contributions**

All authors equally contributed to this study.

### **Declaration of Interest**

The authors of this article declared no conflict of interest.

### **Ethical Considerations**

All ethical principles were adhered in conducting and writing this article.

### **Transparency of Data**

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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