

PERCEPTION OF ISLANDS SUSTAINABLE DEVELOPMENT CONCEPT APPLICATION – THE VIEWS OF RELEVANT CROATIAN ISLAND STAKEHOLDERS

Abstract

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Purpose – Research objectives are to identify important dimensions of sustainable development of an island destination that are directly observable by the stakeholders and to empirically validate those dimensions as well as to determine the level of application from the perspective of stakeholders on Croatian islands.

Design – In this study, experts in the field of sustainable development of island tourist destinations were surveyed. Experts include tourism professionals, representatives of executive and administrative bodies of local self-government units and prominent island residents. To understand their perception of the application of the concept of sustainable development on islands, four important dimensions were observed, identified based on a review of relevant literature: financing sustainable development on islands, respecting the socio-cultural authenticity of the local community, educating the local population about the concept of sustainable development, and establishing competence centers for effective cooperation on development projects and research on sustainable tourism on islands.

Methodology and approach– A highly-structured questionnaire was used for data collection and the data was analyzed using descriptive and inferential statistics, analysis of variance, correlation analysis and examining the relationships between variables using the chi-square test.

Findings – Results show different points of view, primarily from the aspect of achieved tourism development. When it comes to the respondents' attitudes towards the key elements of sustainable development of islands, the results are following. The average rating of attitudes on socio-cultural authenticity of the local community is the highest compared to other elements of sustainable development and it is quite consistent across all island categories. In contrast, the existence and role of centers of competence is rated the lowest. In the context of continuous education of the local population and the existence of an adequate system of financing sustainable development, respondents from the category A islands, gave these two elements the highest ratings, especially compared to respondents from category C islands. When comparing three groups of relevant stakeholders, the differences were found regarding the level of respect for the socio-cultural authenticity of the local community. The greatest discrepancy is found between the representatives of the local government and the islanders. Regarding education, respondents who perceive their islands as developed, believe in greater extent that this type of education is present in their area.

Originality of the research – Given that research in this regard is generally focused on the perception of tourists, this research aims to illuminate the perspective of local stakeholders. Also, the study identified important dimensions of island sustainable development concept application based on previous research. These dimensions are in-common for all stakeholder groups and directly observable which is important both for research and for the development of local and national development strategies and policy.

Keywords islands, sustainable development concept, sustainable tourism development, stakeholders, Croatia

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INTRODUCTION

At the beginning of the 21st century, many destinations experienced mass tourism as “the destruction of their cultural, ambient, and developmental resources (examples of Venice, Florence, and Dubrovnik), leading to a re-examination of destination management models” (Ljubičić, 2016, p. 31). In this context, the concept of sustainable tourism development has been widely accepted, often defined as development that does not lead to the degradation and exhaustion of resources that make development possible.

As Blažević (1998) points out, it is not possible to develop tourism without impacting the environment, culture, and social structure. Therefore, it is necessary to manage tourism with the aim of minimizing negative impacts and maximizing positive impacts on the destination. “Coastal areas are particularly endangered due to intense urbanization, uncontrolled construction, poor spatial planning, and mass tourism. The consequences are environmental pollution, reduction of biodiversity, depletion of natural resources, and devaluation of the coastal landscape” (Kordej-De Villa, Rašić Bakarić & Starc, 2014, p. 449). Island communities, which have survived for centuries with limited resources, can serve as an example for understanding sustainable development (Kerr, 2005, p. 504).

The smaller the space in which environmental changes occur, the greater the consequences. Applied to an island as an isolated local community, it can be concluded that the approach to every developmental intervention in island space needs to be thoroughly

considered from economic, sociocultural, and ecological perspectives. The approach to sustainable tourism development on islands must be comprehensive and structured with a “top-down” approach, which, on the other hand, does not exclude the interests of local communities whose initiatives with a “bottom-up” approach should be integrated into development plans.

There are several international organizations aiming to represent the interests of islands. An important added value of these organizations is the conduct of research and creation of development strategies on islands. Among them are: The Island Commission and the European Small Islands Federation, and global networks focusing on sustainable island development, such as Greening the Islands and the Sustainable Islands Platform (Haase & Maier, 2021).

All this confirms a clear strategic commitment to the sustainable development of island tourism destinations, considering the specificities of each island and island groups with the aim of improving the quality of life of the island population. However, not all islands are equally developed, nor is their sustainability equally threatened, because, as Agius & Chaperon (2023, p. 506) state, “the most peripheral islands have the highest level of environmental preservation but also the lowest level of development. This can actually favor tourism development, but is limited by problematic core-periphery relations.”

A strategy as an instrument for implementing the policy of sustainable development of Croatian islands is particularly needed for cooperation, support to island communities, and relevant stakeholders, all with the goal of sustainable management of resources and infrastructure, ultimately creating conditions for improving the quality of life on the islands. Development strategies require regional leaders to consider encouraging entrepreneurship related to small and medium-sized enterprises; promoting diversity in the tourist offer; designing guidelines that follow models of sustainable development and SDGs, or making significant investments in the preservation and protection of cultural heritage, as well as island endogenous resources (Castanho, Santos & Couto, 2023).

Island territories typically offer a favorable environment for the development of areas intended for mass tourism, giving them greater competitiveness on a global level with their unique geographical features and environmental qualities, idyllic image, and the availability of coasts offering a combination of sun, sea, and sand (Bosch, Castro González & Sánchez, 2023).

To define and dynamically align this strategy with the contemporary environment and the real needs of both the market and the local population, continuous research into the perception of all stakeholders on the elements of the application of the concept of sustainable tourism development is necessary (Santos, Castano & Couto, 2023). Given that research in this regard is generally focused on the perception of tourists, this research aims to illuminate the perspective of local stakeholders. Accordingly, the sample in this study consists of experts in the field of sustainable development of island tourist destinations. Experts include tourism professionals (in the system of local or regional tourist boards, hospitality industry employees), representatives of executive and administrative bodies of local self-government units (mayors, heads, municipal or city councilors, and department heads), and prominent island residents, i.e., those who have certain knowledge and/or experience in sustainable and tourist development of their destination.

To provide relevant information necessary for understanding their perception of the application of the concept of sustainable development on islands, four important dimensions identified based on a review of relevant literature (Fauzel & Tandrayen-Ragoobur, 2023) were observed: financing sustainable development on islands, respecting the socio-cultural authenticity of the local community, educating the local population about the concept of sustainable development, and establishing competence centers for effective cooperation on development projects and research on sustainable tourism on islands.

The results obtained from the research can be applied as a basis for the development of local and national development strategies and plans, as well as the implementation of development policy, and as a guideline for future researchers. The aim of the research is to complement existing knowledge on sustainable development management on islands. Research objectives are to identify important dimensions of sustainable development of an island destination that are directly observable by the stakeholders and to empirically validate those dimensions as well as to determine the level of application from the perspective of stakeholders on Croatian islands.

1. LITERATURE REVIEW

Establishing an optimal way of using the potential for growth and development is one of the prerequisites for effective management of a tourist destination. When designing the desired growth model, it is necessary to clearly assess its limits and the type of targeted market segments. To determine the tourism sustainability of a destination, it is necessary to establish a system for quality monitoring of competitiveness and control of a range of indicators.

Bramwell & Henry (1996) proposed ten fundamental principles of sustainable tourism development that have been accepted by international organizations, such as the World Tourism Organization. Most principles relate to aspects such as involving local communities, sustainable use of resources, tourism planning, promotion, research, etc. Amerta, Sara & Bagiada (2018) analyze and summarize these principles of sustainable tourism, referring also to Eber’s proposals (1992).

Fundamental indicators of competitiveness and sustainability of the system should, as stated in the EC Tourism Destination Quality Assessment Manual (2009), relate to: relevant aspects of growth, organization of destination resources, productivity and adaptability of products and services to market demands, the sense of well-being of the local population and the level of tourist satisfaction, and the alignment of relations among entities within and outside the destination. This underlines the need for constant monitoring of the level of tourist satisfaction, environmental conditions, maintaining social identity, and balancing tourism with other activities.

Advocates of an integrated approach to strategic management consider this model to be the most acceptable for the development of tourist destinations in the Republic of Croatia. Such an approach insists on horizontal and vertical integration of all elements of the management system (Cetinski, 2005). In this sense, it is necessary to continuously and dynamically align interests through cooperation of all competent entities and institutions, not neglecting the interests of any management level while achieving a balance of interests over a longer period. The goals of strategic management are reflected in the continuous improvement of the tourist product, raising quality, and efficient use of resources. The fundamental purpose of destination development is to ensure the alignment of processes achieved through continuous cooperation and partnership of all relevant stakeholders in the tourist destination.

In order to promote sustainable tourism, efforts are directed towards creating high-quality, differentiated tourist products. A differentiated tourist product refers to an integrated product, based on the endogenous characteristics of the area that has high added value and attracts highly educated tourists, includes the latest research and innovation techniques, employs qualified employees, and has high ecological standards (Spilanis & Vayanni, 2003, p. 263).

Numerous research studies have been conducted in the area of strategic thinking on the development of tourism in the Republic of Croatia. Vuković (1996) underlined the necessity of identifying all comparative advantages for tourism development. Cicvarić (1998) finds the basis for developing a tourism strategy in the fact that 86% of tourists in the Republic of Croatia point out rest and relaxation as their motive for coming, which implies a “sun, beach, and sea strategy”. Gračan (2003) believes that it is primarily necessary to determine the interest spheres of emitting demand and then determine the direction of the new tourist product in order to extend the tourist season and reduce seasonal fluctuations. Raspor Janković & Matas (2023) investigated the perception and satisfaction of the tourist offer of an island destination from the perspective of the local population, while Manestar & Brozović Rončević (2018) analyzed the topic of sustainable development of islands from an anthropological standpoint.

Sustainable tourism on islands has been investigated by official government organizations/systems (eg. Institute for Tourism and the eDEST System) and has been the subject of numerous scientific and professional researches. Previous research (Petrić & Pranić, 2010; Soldić Frleta, 2014; Šokčević, 2023) emphasize the importance of community engagement and local knowledge in designing effective sustainability strategies for islands. Furthermore, Tomljenović, Boranić Živoder & Marušić (2013) study the support of different stakeholder groups and their role in sustainable tourism development while Zhong-wei (2015) and García-Falcón (1999) both emphasize the importance of sustainable strategic planning, with the latter proposing a methodology for this purpose. Bakija, V. & Bulić, M. (2013) as well as Gregorić, Budmir Šoško & Horvat (2018) focus on specific case studies of Croatian islands, while Vidučić, V. (2007) and Paparić (2023) investigate the entire island community aiming to determine important dimensions of strategic management as well as different stakeholders' views.

When it comes to sustainable tourism development, it is often emphasized in scientific and professional literature that significant long-term financial investments that meet ecological criteria and return on capital invested in a particular project or program are necessary for sustainable development (Tišma, Pisarović & Samardžić, 2004). The importance of the issue of financing sustainable tourism development is confirmed by the extensive research of thematic literature conducted by Streimikiene, Svagzdiene & Jasinskas (2021). A declarative strategic commitment to sustainable tourism development cannot be operationalized without adequate and strategically designed financing systems that will give basic direction and incentive to this development and thus these systems of financing have been observed as the first dimension in this study.

Furthermore, as Krivošejev (2014) states, “alternative tourism represents the complete opposite of traditional mass tourism, characterized by individual travels and travels in smaller groups, where tourists are not passive but active participants in various processes that, along with learning, adventure, and fun, also involve participation in local life”. Modern tourists have prompted tourist destinations to adapt their offer to some new forms of tourism, themes of special interest, creating various events adapted to the age, habits, and culture of visitors. These continuous, and sometimes sudden, changes can easily lead to the loss of identity of the local community and the loss of authenticity of the mentioned “local life”, which is of great importance for the sustainable development of the destination. This is especially the case on islands where one or several larger investments, or entrepreneurial ventures, can lead to a turnaround in the positioning and image of the destination (e.g., an island traditionally known as a quiet family destination can become a party destination). Creative tourism, as Santos, Castano, and Couto (2023) state, can be a potential catalyst for regional economic development even in the most peripheral areas (outer islands), and this type of tourism is based on the authentic characteristics of local community life and local culture. For this reason, respecting the socio-cultural authenticity of the local community is of key importance for the sustainable development of islands (Manestar & Brozović Rončević, 2018) and this represents the second dimension analyzed in this study.

In the foregoing, the importance of the involvement of the local community in tourism and continuous work on improving this involvement is also implied. As McIntyre (1993) states, “involvement of the local community in tourism can enhance positive effects while mitigating negative ones, as this way residents understand tourism, participate in its decision-making, and

benefit from it". The involvement of the local population in the issue of sustainable development of a tourist destination is also related to educational elements, such as educating and informing about the long-term impacts of tourism on the environment and the sustainability of the tourism industry. The local population, with its natural and cultural heritage as well as traditional values, gives a specific feature through which the destination becomes attractive to visitors. It plays an important role in the development of tourism, and its active participation is considered the key to the development of a sustainable tourist community (Birkić, Primužak & Erdeljac, 2019). Based on the elaborated it is clear that one of the important features of the application of the concept of sustainable development of an island tourist destination is the education of the local population about the concept of sustainable development, and for this reason, this dimension is included and measured in this study.

Furthermore, according to (WTO & U.N.E.P., 1998, p. 14), "Governments, the tourism industry, local authorities, and non-governmental organizations related to tourism should participate in creating open networks for research, dissemination of information, and transfer of knowledge about tourism and ecologically sustainable tourism technologies". Also, it is important that the processes and results of strategic product innovations in tourism cover different aspects. As part of this process, innovations have the potential to impact internal stakeholders of the company, such as internal customers and employees. At the same time, their goal may also be directed towards end-users. Innovations can draw external knowledge through open innovations or respond to vertical integration and exclusive control through closed innovations (Krželj-Čolović & Mihajlović, 2022).

For the development of tourism, scientific and professional research and analyses are necessary to solve problems in the domain of sustainable development, as well as creating new products with efficient use of resources, and generally better implementing sustainable development policy in practice. As Munier (2005, p. 37) states, "Assessment of progress towards sustainable development should be based on an explicit set of categories or an organizational framework that links vision and goals with indicators and assessment criteria". Therefore, it is important, according to Kesar, Kroflin, & Kobešćak Mogulić (2022, p. 45) to ensure the sustainability of competence centers in tourism at the national level, which includes the relevant ministries of education and tourism, so that these centers over time become an authentic link between the educational system, the social community, the economy, and the public sector within the national framework, and to achieve cooperation with relevant international organizations. The establishment of competence centers is necessary also for effective cooperation on development projects and research on sustainable tourism on islands. This represents the last of the four dimensions of the concept of sustainable development of islands that will be examined in this study.

In line with the research objectives and based on the analysis of previous studies, the authors posed the following research questions:

1. What are the key dimensions of sustainable development on islands from the stakeholders' perspective?
2. To what extent are the identified dimensions of sustainable development currently applied and what role do they play in achieving sustainable development from the perspective of stakeholders on Croatian islands?

2. METHODOLOGY

One significant challenge in researching islands as tourist destinations lies in the disparate population distribution and varying levels of destination development. Islands, or groups of islands, exhibit a diverse range of developmental stages, making them non-uniform as tourist destinations. This study incorporates data from the 2011 Census of population, households and apartments. This data reveals that the Republic of Croatia is home to fifty inhabited islands, categorized in four groups: A) nine islands, each with a population exceeding 5,000, B) eight islands with populations ranging from 1,000 to 5,000, C) eighteen islands with 100 to 1,000 inhabitants, and D) fifteen islands with fewer than 100 inhabitants. For the purposes of this paper, these island destinations have been classified into three distinct categories: 1) touristically developed island destinations, 2) islands with potential and prospects for tourism development, and 3) islands that are currently less developed in terms of tourism.

Touristically developed island destinations, characterized by their connection to the mainland via bridges or efficient ferry/boat services, robust energy solutions, adequate water supply and effective drainage systems, have evolved into communities with a strong focus on tourism. In these communities, residents, tourism workers and local governments are only aware of the need for sustainable development, but are also able to adapt to the evolving dynamics of the tourism market with the help of qualified personnel (Birkić, Primužak & Erdeljac, 2019).

Conversely, islands or island settlements that are on the cusp of tourism development are particularly sensitive. It can be assumed that their prospects for sustainable development may be very different. Furthermore, it is important to bear in mind that historically, an island tends to be a self-sufficient, self-contained community that is inherently resistant to outside influences and instructions from various authoritative bodies. Sample characteristics are presented in the following table.

Table 1: Frequency and distribution of the respondents

Island category (# of Inhabitants)		F	%	# of Islands	Respondents per Island	Male	Female	Male : Female Ratio
A	> 5000	123	50.6	9	13.67	51	72	41.5 : 58.5
B	1000 - 5000	67	27.6	8	8.38	29	38	43.3 : 56.7
C	100 - 1000	43	17.7	18	2.39	23	20	53.5 : 46.5
D	< 100	10	4.1	15	0.67	7	3	70 : 30
Total		243	100	50	4.86	110	133	45.3 : 54.7

Source: Authors' work

More than half of those surveyed (73.3%) have a college degree, while 26.7% of respondents have a vocational secondary school qualification. The majority of respondents in all island categories (58.0%) are in the middle age group (between 30 and 50 years), except on the islands in category D, where the majority (60.0%) of respondents are older (over 50 years).

The survey targeted individuals from the local or permanently residing population of the islands. In this targeted survey, participants were categorized based on their professions as follows.

Tourism Industry Workers: This category primarily encompasses representatives from tourist boards and stakeholders in the hospitality sector, including hotels, campsites, and catering establishments.

Island Residents: This segment is represented by notable personalities from the cultural sphere (writers, poets, and painters), chroniclers, former tourism workers, landlords, or individuals with tourism experience.

Local Government Representatives: This group includes elected officials or administrators responsible for the development of island municipalities or cities, such as mayors, municipal heads, councilors, department heads, and chairs of local committees.

This comprehensive approach in categorizing the occupations of respondents was designed to gather a wide range of perspectives, especially those concerning the constraints related to sustainable development. The subsequent table illustrates the frequency and distribution of respondents by their profession and the category of the island they reside on.

Table 2: Frequency and distribution of respondents by occupation and island category

Occupation of the respondent	Sample		A > 5000 inhabitants		B 1000 – 5000 inhabitants		C 100 – 1000 inhabitants		D < 100 inhabitants	
	F	%	F	%	F	%	F	%	F	%
Tourism Industry Workers	92	37.9	49	39.8	25	37.3	15	34.9	3	30.0
Island Residents	71	29.2	31	25.2	26	38.8	12	27.9	2	20.0
Local Government Representatives	80	32.9	43	35.0	16	23.9	16	37.2	5	50.0
Total	243	100	123	100	67	100	43	100	10	100

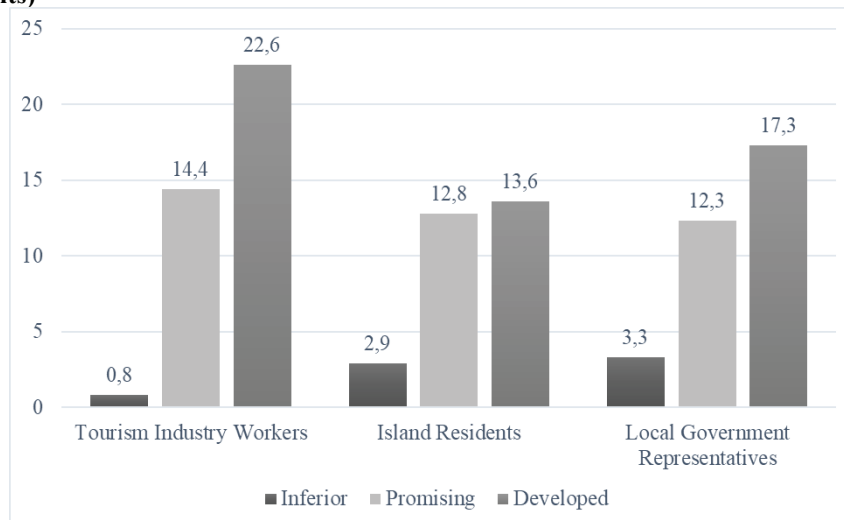
Source: Authors' work

The structure of the questionnaire was based on the analysis of previous studies (Tišma, Pisarović & Samardžić, 2004; Streimikiene, Svagzdiene & Jasinskas, 2021; Manestar & Brozović Rončević, 2018; McIntyre, 1993; Birkić, Primužak & Erdeljac, 2019; Krželj-Čolović & Mihajlović, 2022; Kesar, Kroflin & Kobešćak Mogulić, 2022) that considered the most important aspects of sustainable development on the island. We selected measurement variables that were directly observable in order to understand stakeholders' views on the application of sustainable development concepts. A well-structured questionnaire was used for data collection, using both the pen and paper method and the CAWI method. The collected data was analyzed using descriptive and inferential statistics, analysis of variance, correlation analysis and examining the relationships between variables using the chi-square test. In addition, the significance of the sample was assessed using the T-test.

3. RESULTS

The survey primarily aimed to gather respondents' perspectives on their island's status in terms of tourism development and how this perception aligns with the island's categorization and the respondents' professional backgrounds. The study identified three fundamental attributes to describe the state of tourism development: developed, potentially promising, and inferior tourist island destinations. It was observed that the respondents' views on the development level of their destination varied in relation to their profession, presenting evenly balanced responses across different professional groups. Notably, in all categories of respondents, the most prevalent perception was that their island destination is at a highly developed stage in terms of tourism.

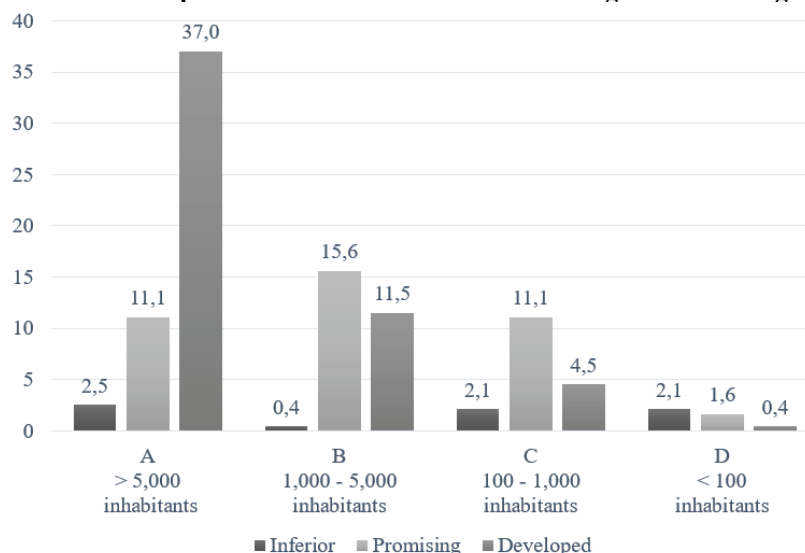
Figure 1: Perception of tourism development of the island destination according to the profession of the respondents (% of total respondents)



Source: Authors' work

Figure 2 shows how the collected answers correspond to the knowledge and status of tourism development on the Croatian islands. Respondents living on category A islands predominantly rate their island as developed. Respondents from category B and C islands rate the level of development of their islands as promising, while respondents from category D islands rate the development of their islands as inferior.

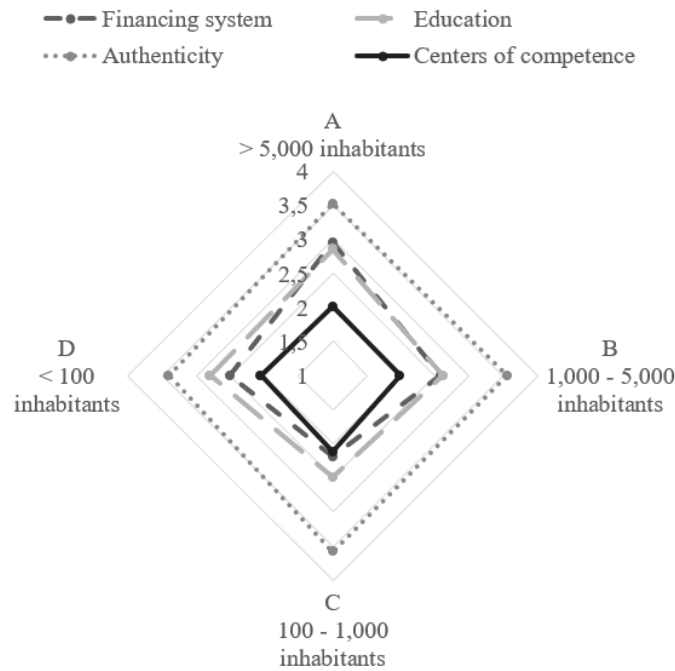
Figure 2: Perception of touristic development of island destinations according to island category



Source: Authors' work

The survey of respondents' attitudes towards the key elements of sustainable development of islands included opinions on statements related to the financing system for sustainable development on islands, education of the local population on the concept of sustainable development, socio-cultural authenticity of the local community and cooperation in development projects and research on sustainable tourism through the establishment of centers of competence. The average ratings of respondents by island category are shown in Figure 3.

Figure 3: Average score of four dimensions of sustainable development according to island category



Source: Authors' work

The average rating of attitudes towards the socio-cultural authenticity of the local community is the highest compared to other elements of sustainable development and is quite consistent across all island categories. In contrast, the existence and role of centers of competence, which should strengthen cooperation in sustainable tourism development projects is rated the lowest. In the context of continuous education of the local population about the concept of sustainable development and the existence of an adequate system for financing sustainable development on the islands, respondents from the largest islands (category A) gave these two elements the highest ratings, especially compared to respondents living and working on islands with 100 to 1000 inhabitants (category C).

The next step in the analysis was to compare three groups of relevant stakeholders and look for differences in their attitudes and perceptions. Regarding the existence of adequate financing systems provided by ministries, agencies, regional and local governments that specifically support sustainable development on islands, on average all stakeholders consider the system for financing sustainable development on islands to be inadequate. As ensuring sufficient funding is a fundamental prerequisite for sustainable development, this negative perception may jeopardise the sustainable development of islands. The uniformity in the responses of all three groups of stakeholders was confirmed (Table 3). The result of the χ^2 test indicates that at a 5% risk level, the null hypothesis H_0 can be accepted, concluding that the respondents do not differ significantly in their ratings. Cramer's V as a measure of symmetry has a minimal effect, and η^2 as a measure of association has a negligible value.

Table 3: Attitudes about financing according to the stakeholder groups

Stakeholder group		N	SD	
Local Government Representatives	2.65	80	1.148	
Island Residents	2.71	70	1.105	
Tourism Industry Workers	2.72	92	1.113	
Σ	2.69	242	1.118	
Coefficients	Value	df	χ^2 (5% significance)	
Pearson χ^2	1.752	8	15.507	
Likelihood Ratio	1.759	8	Null hypothesis is accepted at a significance level of 0.05	
Phi	0.085			
Cramer's V	0.060	Eta η		0.028
Coefficient of Contingency	0.085	η^2		0.001

Source: Authors' work

The next element of sustainable development refers to the level of respect for the socio-cultural authenticity of the local community. When analyzing the average ratings given by the stakeholders, the unevenness of attitudes becomes clear. The inhabitants of the island gave the lowest rating in the context of respecting and observing the socio-cultural authenticity of the

local community. On the other hand, representatives of the local government have a much more positive view of the attitude towards socio-cultural authenticity. This is further confirmed by the result of the χ^2 test, which indicates that at a risk level of 5%, the hypothesis H_1 can be accepted and the conclusion can be drawn that respondents differ in their perceptions. The greatest discrepancy is found between the representatives of the local government and the islanders. Cramer's V as a measure of symmetry has a weak effect, and η^2 as a measure of association has a negligible value.

Table 4: Attitudes about respecting the socio-cultural authenticity of the local community according to the stakeholder groups

Stakeholder group		N	SD	
Local Government Representatives	3.69	80	0.894	
Island Residents	3.30	70	0.907	
Tourism Industry Workers	3.59	92	0.951	
Σ	3.54	242	0.929	
Coefficients	Value	df	χ^2 (5% significance)	
Pearson χ^2	15.860	8	15.507	
Likelihood Ratio	11.722	8	Hypothesis H_1 is accepted at a significance level of 0.05	
Phi	0.212			
Cramer's V	0.150	Eta η		0.169
Coefficient of Contingency	0.207	η^2		0.029

Source: Authors' work

When asked about education, respondents generally agree that the local population on the islands is constantly being educated about the concept of sustainable development. At stakeholder level, the average scores range from 2.64 (island residents) to 2.77 (tourism industry worker). However, there are certain differences (Table 5). When respondents are grouped according to their perception of tourism development of island destinations, respondents who perceive their islands as developed believe that this type of education is present in their area (mean = 2.91). On the other hand, respondents who perceive their islands to be inferiorly developed gave much lower marks in this regard (mean = 2.49).

Table 5: Analysis of the variance of the attitudes about education

ANOVA		Sum of Squares	df	Mean Squares	F	p value
Perception of touristic development of island destination	Between Groups	11.248	2	5.624	4.296	0.023*
	Within Groups	311.565	238	1.309		
	Σ	322.813	240			

*With 5% risk the obtained F-ratio is statistically significant, i.e. $p < 0.05$.

Source: Authors' work

The final element of sustainable development in this study related to the role that competence centers play in promoting cooperation in sustainable development projects and research. The analysis of the average ratings given by the respondents shows that there are no significant differences between them, which indicates a uniformity of opinion. This is also confirmed by the result of the χ^2 test, which suggests that at a 5% risk level, the null hypothesis H_0 can be accepted, meaning that the respondents do not differ significantly in their perceptions and attitudes.

Table 6: Analysis of the variance of the attitudes about the role of competence centers

ANOVA		Sum of Squares	df	Mean Squares	F	p value
Perception of touristic development of island destination	Between Groups	6.066	2	3.033	2.680	0.022*
	Within Groups	270.434	239	1.132		
	Σ	276.500	241			
Island category	Between Groups	22.681	3	7.560	7.089	0.032*
	Within Groups	253.819	238	1.066		
	Σ	276.500	241			

*With 5% risk the obtained F-ratio is statistically significant, i.e. $p < 0.05$

Source: Authors' work

The distribution of assigned ratings based on the perception of tourism development of the island destination where the respondents are from ranged from 1.65 for tourism inferior destinations to 2.18 for tourism developed destinations. In addition, the distribution of assigned ratings by the category of island from which respondents originated ranged from 1.70 for Category C islands to 2.34 for Category A islands. In both cases, the distribution was not even, which was confirmed by the analysis of variance.

4. DISCUSSION AND CONCLUSION

Sustainable tourism development, based on ecological principles, represents a contemporary phase of tourism development, meeting the needs of tourists and the local population while preserving resources for future development. The concept of sustainable development is not an “anti-development” concept, but emphasizes the limits of development within which tourism must be developed.

Looking at the key factor for implementing the concept of sustainable development in tourism, it becomes clear that it is undoubtedly the people with their different roles and actions that contribute to it, as well as the tourists whose behavior has a direct impact on sustainability. In addition, there are businesses involved in tourism activities or their employees who directly or indirectly influence sustainability.

The effective application of the concept of sustainable development in tourist destinations requires the existence of adequate financing systems. In other words, if the sustainable development of islands is defined as a strategic priority, this priority must be visible in the structure of the allocated funds that are invested in development projects. This is in line with the research of Diaz and Kien (2019) who stress the fact that lack of financing is a common challenge hindering the development of tourism and that the purpose of tourism finance is to set criteria on which value-adding tourism projects should receive investment funding. Furthermore, it is important to respect the socio-cultural authenticity of the local community in order to avoid losing the important dimension of “local life,” which is essential for sustainable development and the quality of life on the island. Poort (2021) and Maher (2018) both emphasize the need for authentic experiences and community-led approaches in tourism development, with Poort (2021) specifically noting the role of locals in steering this development. This implies the involvement of the local population and other local stakeholders, which should be based on education and knowledge as the main factor of persuasion, but also on the concrete empowerment of local stakeholders so that they can make a real and strong contribution to the sustainable development of the islands. Hiebert (2013) also points out that education for sustainable development is crucial for the sustainable development of islands, particularly in the face of climate change. However, Dakaica (2005) stresses that this education must be locally defined and consider the unique social, cultural, ecological, and economic factors of each island. Finally, given the specificities of islands as destinations, as well as the particularities of individual islands and island groups and the dynamic changes in market demand, it is necessary to base development strategies and plans on continuous, scientifically sound and specific research and to disseminate and apply the results of this research appropriately, for which it is necessary to create centers of excellence. A range of other studies have also explored the role of competence centers in promoting sustainable tourism. Mijts (2019) points out their crucial role in the sustainable development of small island states, while Ma’rif (2022) adds that they can strengthen the role of small islands as growth centers, addressing their unique vulnerabilities and needs.

Managerial implications of the study relate to careful consideration of the above dimensions in every strategic decision and in strategic plans and actions at different levels of island sustainable development management. Also, the degree of application of these dimensions from the stakeholders’ perspective can serve as a reference point for decision makers in Croatia. From a theoretical point of view, the results of the study contribute to the discussion on important dimensions that need to be measured to assess the sustainable development of an island. Furthermore, the study identifies important groups of stakeholders on islands and a possible way to categorize islands in order to potentially develop different approaches for the strategic management of the sustainable development of these islands.

The research carried out has sought and found answers to the research objectives. However, there are still questions that remain unanswered and require our attention if we are to fully understand this complex matter. These are the suggestions for further research. The opinions of respondents gathered in this study contribute to a “bottom-up” approach. Taking such opinions into account implies the consideration of a greater number of participants in future strategies for the sustainable development of islands, both fundamental and sector-specific in terms of transport, tourism, agriculture, digitalization, green transformation, etc. This study looked at dimensions of sustainable island development that are common to all three examined groups. Future research could include other dimensions of sustainable development that are specific to each group. For example, it is necessary to investigate the perceived equality of opportunity, the availability of equal resources and the existence of an encouraging climate for the creation of new businesses and the creation of new value, a dimension that is of great importance for entrepreneurs as key players in tourism. In addition, the theoretical model could be extended by two further dimensions that are of fundamental importance for sustainable island development. The first relates to the communication and cooperation of all stakeholders in sustainable island development at local, regional and national levels, and the second is the perception of coordination and positive and/or negative interactions of policies and measures from the national to the local level.

This study has its limitations, which must be noted. Examining the attitudes and perceptions of tourism experts can provide valuable insights. However, this approach is static in nature and does not contribute to the understanding of the processes and

dynamics of sustainable tourism on the island. Furthermore, this study relies on a dominant method of data collection and uses only quantitative analysis. To explain the statistical results in more depth, a complementary qualitative method such as case study analysis is recommended.

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