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CROATIAN COMPETITIVENESS IN THE SOUTHERN EUROPEAN TOURISM MARKET: TRAVEL AND TOURISM SUSTAINABILITY DIMENSION

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Abstract

This paper aimed to determine how changes in the methodology for measuring tourism destination competitiveness have affected the Republic of Croatia's overall rank and its standing relative to competitors in the Southern European tourism market. To achieve this purpose, the study used a quantitative analysis of secondary data published by the World Economic Forum. According to the analysis, following the change in the methodology for measuring tourism destination competitiveness, the Republic of Croatia's overall competitiveness rank fell from 27 (TTCI ranking) to 46 (TTDI ranking), indicating that the Republic of Croatia performs relatively worse in tourism under the TTI framework. Compared with its main competitors in the Southern European tourism market, the results indicate that the Republic of Croatia's competitiveness has worsened. This paper highlights the pillars that require prioritization and improvement to strengthen the Republic of Croatia's competitive position in the travel and tourism market, both overall and relative to its main competitors. This research also identifies the elements of greatest value for sustainable tourism development and outlines future actions to address weaknesses in the current tourism policy.

Keywords: Travel & Tourism Development Index (TTDI), sustainability, Republic of Croatia

1. INTRODUCTION

Tourism is one of the world's fastest-growing economic sectors, representing 9.8% of the global economy in 2025 and supporting 366 million jobs worldwide, approximately 1 in 9 jobs (https://wttc.org/research/economic-impact, accessed 21st May 2026). International tourism grew rapidly, reaching 1.3 billion arrivals in 2023 (about 89% of pre-pandemic levels), indicating that more than one-sixth of the world's population traveled. In the same year, international tourism receipts reached USD 1.5 trillion, accounting for 98% of the pre-pandemic 2019 value (https://www.e-

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unwto.org/doi/epdf/10.18111/9789284425808, accessed 20th May 2026). In 2024, tourist arrivals reached 1.5 billion, returning to the pre-pandemic level. In the same year, international tourism receipts reached USD 1,7 trillion, 11% more than in 2023 and 14% above the 2019 level (https://www.e-unwto.org/doi/epdf/10.18111/9789284427499, accessed 8th June 2026). The continued growth in the number of world travelers has also increased the number of international tourism destinations, leading to more intense competition among them. After the COVID-19 pandemic, competition among destinations to attract and retain tourists intensified. As the number of destinations in the tourism market rises, it is essential to understand one's own competitive capacity and assess the strengths and weaknesses of direct competitors. The emergence of new tourism destinations impacts and changes the competitive environment (Khelashvili & Okroshidze, 2025). To improve competitive ranking and gain a competitive advantage, policymakers should understand the factors that affect and enhance destination competitiveness. Understanding these factors helps improve tourism performance and develop effective strategies (Aydinlia, Sezgin & Solak, 20255). This has led to growth in the recent economic literature on destination competitiveness, particularly regarding its determinants (Salinas Fernández et al., 2020; Rheeders, 2022; Risfandini et al., 2022; Faur & Ban, 2022; Mior Shariffuddin et al., 2023).

The competitiveness of a tourism destination can be assessed using conceptual frameworks (De Keyser & Vanhove, 1994; Ritchie & Crouch, 1995; Heath, 2002; Dweyer & Kim, 2003) and/or empirical evidence (Gooroochurn & Sugiyarto, 2005; World Economic Forum – TTCI, 2007; TTDI, 2021). However, conceptual models are not suitable for the accurate and rapid determination of destination competitiveness (Petrović et al., 2017).

This paper presents a quantitative analysis of secondary data published by the World Economic Forum (WEF). The competitiveness of the Republic of Croatia (hereafter, Croatia) was assessed using WEF's Travel and Tourism Competitiveness Index (TTCI) and Travel & Tourism Development Index (TTDI). Despite various criticisms and explanations of the TTCI's limitations (Pulido-Fernandez & Rodríguez-Díaz, 2016; Lopes et al., 2018; Kunst & Ivandić, 2021; Epoh et al., 2023), the TTCI and the TTDI remain valuable indicators of destination competitiveness. Compared with the TTCI (published 2007-2019), which focused on economic competitiveness and tourism attractiveness, its successor, the TTDI (starting in 2021), emphasizes sustainable, planned, controlled, and resilient tourism development. The comparison between TTCI and TTDI is motivated by the substantial methodological shift the WEF introduced in 2021. The TTCI primarily assessed the enabling environment, tourism policy, infrastructure, and natural and cultural resources associated with travel and tourism competitiveness. The TTDI retains several of these dimensions but introduces a substantially stronger emphasis on sustainable and resilient tourism development, including environmental sustainability, socioeconomic impacts, and tourism demand pressures. Aligned with the United Nations Sustainable Development Goals (SDGs), the TTDI introduces explicit sustainability pillars. The revised index (TTDI) places greater weight on environmental sustainability, socioeconomic impact, and managing demand pressures than the former, more growth-oriented TTCI (www.weforum.org/publications, accessed 19th May 2026).

Building on previous research, this paper addresses two research questions: (1) Does the Republic of Croatia perform relatively worse in tourism under the TTDI framework? and (2) Which TTDI pillars represent the main areas for improving Croatia's destination competitiveness relative to selected Southern European competitor destinations? To answer the first question, a comparative analysis, based on data from TTCI 2019 and TTDI 2024, has been used. To conduct a pillar-level analysis and answer the second question, the authors used TTDI 2024. In 2023, Croatia recorded 19.5 million arrivals (99.5% of the pre-pandemic 2019 level) and 92.4 million overnight stays (+1.3% compared to 2019). In 2024, there were 20.2 million tourist arrivals and 93.7 million tourist nights in commercial accommodation establishments, representing a 3.9% increase in tourist arrivals and a 1.4% increase in tourist nights compared to 2023 (www.dzs.hr, accessed 20th May 2026).

Today, tourists' awareness of sustainable development has increased, extending beyond the environmental dimension to encompass all components of sustainable tourism (environment,

society, culture, and economy). Scientific research on sustainable tourism has shifted from a purely environmental perspective to a holistic view encompassing economic and social dimensions (Giambona et al., 2024). Tourists are more likely to choose a destination that cares about its environment, local community, and economy, and that cherishes its traditions and culture, because they recognize that if it takes care of itself, it will take care of them. Therefore, if a destination wants to gain an advantage over its direct and indirect competitors, it must understand its sustainable potential. According to Epoh and Mbebi (2023), pursuing competitiveness has become a matter of survival for both economies and products.

2. LITERATURE REVIEW

Tourism destination competitiveness is a central concept in tourism research. Because of its complexity and multifaceted nature, tourism destination competitiveness lacks a universally accepted definition. Yet several influential formulations share common elements, such as ability, performance, attractiveness, residents' well-being, and sustainability.

Ritchie and Crouch (1993), pioneers in tourism destination competitiveness research, were the first to link competitiveness to tourism destinations and defined destination competitiveness as a destination's capability to increase tourism consumption while providing a fulfilling experience that enhances local residents' quality of life and protects resources for future generations. According to their definition, tourism competitiveness encompasses economic, socio-cultural, and sustainable dimensions. De Keyser and Vanhove defined the competitiveness of a destination as its ability to meet its long-term objectives more effectively than the international or regional average, meaning that a competitive destination is able to operate more profitably than the average, with lower social costs without negatively impacting the environment and available resources (De Keyser & Vanhove, 1994, p. 19). According to Dwyer and Kim, destination competitiveness is "the ability of a destination to deliver goods and services that perform better than other destinations on those aspects of the tourism experience considered important by tourists" (Dwyer & Kim, 2003, p.375). Dupeyrad and MacCallum (2013) defined destination competitiveness as ability of a place to optimize its attractiveness for residents and non-residents, to provide quality, innovative, and attractive (e.g., providing good value for money) tourism services to consumers, and to gain market shares in domestic and global markets, while ensuring that the available resources that support tourism are used efficiently and sustainably. Because of growing concerns about the sustainability of tourism resources, sustainable development has increasingly been included in the concept of destination competitiveness in recent years. Tourism development depends on natural and social resources that "we did not inherit from our ancestors but borrowed from our descendants" (Smith, 1887); therefore, they must be used responsibly and left in the same quantity and quality as we received them. Back in 1887, Doctor Smith offered a concise definition of sustainable development. Sustainable development is development that integrates and interlinks society, the environment, and the economy into a single dynamic global system. Basiago has in 1999 defined each of the sustainable development components (in Landorf, 2009, p.54):

"-economic sustainability is a system of production that satisfies the present level of production without compromising social equity and the needs of future generations

-environmental sustainability is harvesting resources no faster than they can be regenerated and emitting waste no faster than it can be assimilated by the environment without damaging biodiversity and ecosystem integrity

-social sustainability is economic growth constrained by the requirements for equity, empowerment, cultural identity, and institutional stability."

Sustainability, as a concept, has become an essential issue in tourism due to the growing negative impacts of tourism on the environment, society, culture, and the economy. "The major academic concern over its negative effects dates back at least to the 60s of the last century, however,

and to the tradition of research into carrying capacity" (Saarinen, 2006, p. 1122). Within the framework of sustainable development, Chaharbaghi and Lynch (1999) defined sustainable competitive advantage as the process of meeting current competitive needs without compromising the ability to meet future needs. This dynamic concept rests on the following foundations:

- A sustainable competitive advantage focuses on preservation (protection) because no one has unlimited resources. Limitations imply the necessity of conscientious management.
- Sustainable competitive advantage is based on needs, whereby economic activity must be aligned with the market's needs for the products and services produced from such activity.
- Sustainable competitive advantage is focused on the future and is placed above short-term management, with an emphasis on long-term resource management to achieve a strategic advantage.

Sustainable development is also reflected in the most widely accepted and frequently cited above-mentioned definition of competitiveness by Ritchie & Crouch (2003), which emphasizes enhancing local residents' well-being and preserving natural resources for future generations.

The complexity of assessing and measuring a destination's tourism competitiveness stems from the tourism product's composition of multiple products from other industries. The competitiveness of a tourism destination can be estimated using conceptual and/or empirical evidence (Table 1). The conceptual models below for determining a destination's tourism competitiveness are based on Porter's "national diamond model" (Porter, 1990), while the empirical models are based on analyses of quantitative and qualitative indicators from relevant published sources (UNWTO, UNESCO, WTTC, IATA, etc.).

Table 1 Conceptual and empirical models of estimating tourism competitiveness of a destination

Conceptual models	Empirical models
Ritchie & Crouch (1993).	Gooroochurn & Sugiyarto (2005).
De Keyser & Vanhove (1994).	WEF, 2007. (TTCI)
Heath (2002).	WEF, 2021. (TTDI)
Dweyer & Kim (2003).	

Source: Authors.

The most widely used tourism competitiveness indicator system is the TTCI/TTDI, developed by WEF in 2007. In the first TTCI Report, TTCI grouped nearly 100 indicators into three subindexes (T&T regulatory framework; Business environment and infrastructure; T&T human, cultural, and natural resources) and 13 pillars. Since then, it has been revised and supplemented using statistical sources to improve tourism competitiveness measurement. A year later, one pillar was added (Affinity for Travel & Tourism). In the 2019 TTCI Report, TTCI contained 90 indicators organized into 14 pillars and 4 subindexes (Enabling environment; T&T policy and enabling conditions; Infrastructure; Natural and cultural resources). Although sustainable tourism development has been in the scientific literature for over 60 years, until 2021 the WEF measured tourism competitiveness only peripherally, through environmental sustainability, using only 10 indicators. After the United Nations adopted the SDGs in 2015, tourism policymakers have sought, year after year, to integrate these goals into the core of tourism. Although the goals were developed in 2015, it took six years to implement them in tourism competitiveness indicators. In 2021, the TTDI, which comprises 112 indicators across 17 pillars and 5 subindexes, replaced the TTCI. Sustainability has been added as an independent fifth subindex, named T&T sustainability, comprising environmental sustainability, socioeconomic resilience and conditions, and Travel and tourism demand pressure and impact. It is measured by 29 indicators (almost three times as many as in 2019). The Natural and cultural resources pillar has been renamed T&T demand drivers (see Figure 1). The weights of the competitiveness pillars have also been changed (see Table 2). The inclusion of sustainability as the fifth subindex has increased its weight from 6,25% to 17,64% (4 times 5,88%).

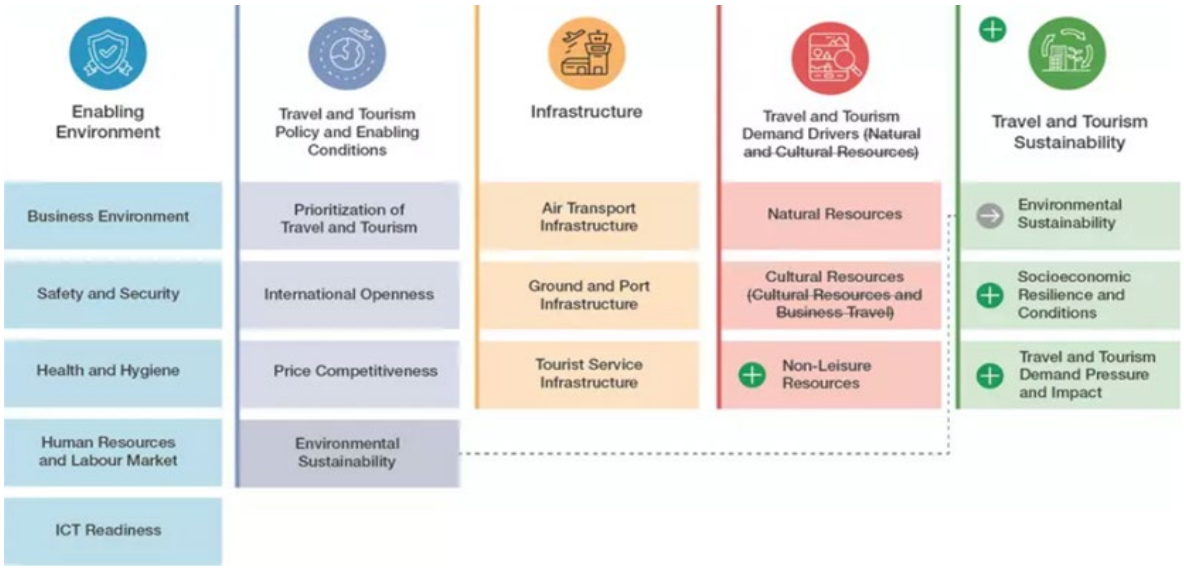


Figure 1 Evolution of the TTCI to the TTDI

Source: TTDI 2021, p. 42.

In TTDI 2024, the titles of three pillars were slightly changed (International Openness became Openness to T&T; Infrastructure became Infrastructure and Services; T&T Demand Drivers became T&T Resources)

The points above highlight the importance of sustainable tourism development and underscore sustainability's vital role in the long-term development of the travel and tourism sector. Given that sustainability has become an essential issue for tourism destinations due to growing negative environmental and social impacts, it is imperative to incorporate sustainability-related elements into tourism competitiveness measurement (Devesa et al., 2025).

Table 2 Differences in the weight of competitiveness pillars

TTDI dimensions	TTDI weights (%)	TTCI weights (%)	Weight differences
Enabling Environment			
Business Environment	5.88	5	0.88
Safety and Security	5.88	5	0.88
Health and Hygiene	5.88	5	0.88
Human Resources and Labour Market	5.88	5	0.88
ICT Readiness	5.88	5	0.88
T&T Policy and Enabling Conditions			
Prioritization of T&T	5.88	6,25	-0.37
International Openness	5.88	6,25	-0.37
Price Competitiveness	5.88	6,25	-0.37
Infrastructure			
Air Transport Infrastructure	5.88	8,33	-2.45
Ground and Port Infrastructure	5.88	8,33	-2.45
Tourist Service Infrastructure	5.88	8,33	-2.45
T&T Demand Drivers			
Natural Resources	5.88	12,5	-6.62
Cultural Resources	5.88	12,5	-6.62
Non-Leisure Resources	5.88	/	5.88
T&T Sustainability			
Environmental Sustainability	5.88	6,25*	-0,37
Socioeconomic Resilience and Conditions	5.88	/	5,88
T&T Demand Pressure and Impact	5.88	/	5,88

*Environmental Sustainability was the fourth pillar of the T&T Policy and Enabling Conditions

Source: Authors from www.weforum.org/publications (accessed 19th May 2026)

Like most synthetic indices, TTCI and TTDI have been criticized. Criticisms of TTCI include the combination of raw and survey data; the use of non-weak theoretical data; comparisons of countries at different levels of development; arbitrary weighting of pillars; and concerns about the subindex's reliability and validity (Crouch, 2007; Mazanec & Ring, 2011; Croes & Kubickova, 2013; Kunst & Ivandić, 2021; Epoh, Mbebi & Nzepang, 2023; Mior Shariffuddin et al., 2023). Despite these criticisms, TTCI has been widely used to measure tourism competitiveness. The same is true for TTDI. Allahverdi, Akandere and Varol (2025) used TTDI with K-means clustering to identify what drives tourism competitiveness in modern areas. The same year, Maráková et al. (2025) used TTDI to investigate the correlation between the level of digitalization and tourism competitiveness in European Union countries.

As mentioned earlier, in 2015 the United Nations adopted 17 SDGs, and since then, efforts have focused on incorporating these goals into tourism to advance sustainable tourism. Because sustainable development encompasses society, the environment, and the economy, the SDGs address all three. The three major components of sustainable development mentioned above are evident in the SDGs through actions to end poverty, protect the planet, and ensure peace and prosperity for all. The SDGs cover the sustainability of society, economy, and the environment through five pillars (5Ps): People, Planet, Prosperity, Peace, and Partnership (https://frqnet.frq.gouv.qc.ca/Documents/ Guide_ODD_EN.pdf, accessed 3rd June 2026)

Table 3 links the SDGs to tourism competitiveness, specifically through the Travel and Tourism Development Indicator (TTDI) system. Many of TTDI's pillars assess the social, environmental, and economic dimensions of sustainable development.

Table 3 Connection of SDGs with TTDI pillars

Goal' name	Goal' description	Connection of TTDI Pillars with SDGs	Connection type
Goal 1: No Poverty	End poverty in all its forms everywhere.		
Goal 2: Zero Hunger	End hunger, achieve food security, improve nutrition, and promote sustainable agriculture		
Goal 3: Good Health and Well-being	Ensure healthy lives and promote well-being for all at all ages.	Health & Hygiene	Measuring healthcare quality and infrastructure, sanitation, and health security relevant to tourism destination development.
Goal 4: Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	Human Resource & Labour Market	Work skills, education, qualifications, and training for improving destination service quality.
Goal 5: Gender Equality	Achieve gender equality and empower all women and girls.	T&T Socioeconomic Impact; Human Resources & Labour Market	Includes workforce equality and women's participation in tourism employment.
Goal 6: Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all.		
Goal 7: Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable, and modern energy for all.		
Goal 8: Decent Work and Economic Growth.	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	Human Resources & Labour Market; T&T Socioeconomic Impact; Tourist Services & Infrastructure	Measures of tourism employment, workforce quality, wage generation, and economic contribution of tourism.

Goal 9: Industry, Innovation, and Infrastructure	Build resilient infrastructure, promote inclusive industrialization, and foster innovation.	Air Transport Infrastructure; Ground & Port Infrastructure; ICT Readiness; Tourist Services and Infrastructure	Assesses transport connectivity, digital infrastructure, and tourism-supporting facilities.
Goal 10: Reduced Inequalities	Reduce inequality within and among countries.	Openness to T&T; Human Resources & Labour Market	Encourages inclusive participation and international mobility.
Goal 11: Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient, and sustainable.	Cultural Resources; Tourist Services & Infrastructure; T&T Demand Sustainability	Supports preservation of cultural heritage and management of tourism destination carrying capacity.
Goal 12: Responsible Consumption and Production	Ensure sustainable consumption and production patterns.	Environmental Sustainability; T&T Demand Sustainability	Evaluates sustainable tourism practices, resource efficiency, and visitor management.
Goal 13: Climate Action	Take urgent action to combat climate change and its impacts.	Environmental Sustainability	Measures of tourism-related environmental performance and climate resilience.
Goal 14: Life Below Water	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.	Environmental Sustainability; Natural Resources	Protects coastal and marine tourism assets through sustainable environmental management.
Goal 15: Life on Land	Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	Natural Resources; Environmental Sustainability	Assesses the conservation of biodiversity, protected areas, and natural attractions affected by tourism exploitation.
Goal 16: Peace, Justice, and Strong Institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.	Safety & Security; Business Environment	Reflects security, governance quality, and stable conditions conducive to tourism development and investment.
Goal 17: Partnerships for the Goals	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Openness to T&T; Prioritization of T&T	Measures of international openness, visa facilitation, and government commitment to tourism development.

Source: Authors from https://frqnet.frq.gouv.qc.ca/Documents/Guide_ODD_EN.pdf and https://www3.weforum.org/docs/WEF_Travel_and_Tourism_Development_Index_2024.pdf, (both accessed 3rd June 2026)

The strongest connections between TTDI and the SDGs are: SDG 8 through tourism employment and tourism's contribution to GDP; SDG 9 through transport and digital infrastructure for tourism; SDG 11 through cultural heritage and destination management; SDG 13 through environmental sustainability indicators for tourism; and SDG 15 through the protection of natural tourism assets from overexploitation.

3. METHODOLOGY AND EMPIRICAL ANALYSIS

As noted in the abstract, this paper aims to determine how changes in tourism competitiveness measurement methodology have affected the Republic of Croatia's competitiveness ranking and its standing relative to competitors in the Southern European tourism market. Accordingly, the research is designed as a benchmarking study rather than a causal analysis. To this end, the study used a

quantitative, comparative, descriptive research design based exclusively on secondary data. The empirical analysis examined the Republic of Croatia's tourism destination competitiveness using the World Economic Forum's (WEF) Travel & Tourism Competitiveness Index (TTCI) and its successor, the Travel & Tourism Development Index (TTDI). To answer the questions posed in the introduction and achieve the aims of this paper, the authors used TTCI 2019 and TTDI 2024 data. The data from TTDI 2021 are presented but were not used in the comparative benchmarking. The primary data source is the World Economic Forum's Travel & Tourism Competitiveness Reports (2007–2019) and Travel & Tourism Development Index reports (2021 and 2024). The analysis uses the country-level ranks and pillar scores reported by the WEF and does not construct a new competitiveness index.

The comparative group comprises eight Southern European tourism destinations: Spain, Italy, Portugal, Greece, Turkey, Cyprus, Malta, and the Republic of Croatia. The selection is based on geographic, tourism-market, and competitive comparability rather than on statistical sampling. These countries represent Croatia's relevant Southern European competitive environment because they are established Mediterranean or Southern European tourism destinations that compete for overlapping international tourism demand. The purpose of the comparative analysis is not to establish a causal control group. Rather, the countries serve as a benchmark for interpreting Croatia's relative performance. A country's position is therefore understood relative to the selected regional market, not as an absolute measure of tourism performance.

The empirical analysis consists of four sequential stages. First, historical TTCI benchmarking was conducted to establish Croatia's trajectory under the former WEF competitiveness framework. Croatia's TTCI rank was recorded for each available edition between 2007 and 2019. The same data were used to determine Croatia's position among the eight selected Southern European destinations. Second, to assess whether the Republic of Croatia performs relatively worse in tourism under the TTDI framework, the study compared Croatia’s ranking measured by TTCI 2019 and TTDI 2024 data. Third, the study performed a pillar-level comparison using the 17 TTDI pillars reported for 2024. Croatia's scores were examined across the five TTDI subindexes: (1) Enabling Environment, (2) T&T Policy and Enabling Conditions, (3) Infrastructure and Services, (4) T&T Resources, and (5) T&T Sustainability. The analysis then compared these scores with those of the seven comparator destinations. Fourth, the analysis identified areas of comparatively lower performance. Rather than interpreting a low score in isolation as evidence of poor tourism performance, the analysis compared Croatia's score with the scores recorded by the selected Southern European destinations. The analysis identified pillars in which Croatia recorded particularly low scores within the comparator group as potential areas for policy attention. The analysis subsequently examined the underlying indicators reported by the WEF, where available, to identify the specific dimensions contributing to Croatia's relatively lower pillar performance.

Since TTCI began monitoring Croatian tourism competitiveness, its rank has improved over the years, except in 2013. According to TTCI, Croatia moved from 38th to 27th between 2007 and 2019 (Table 4).

Table 4 Croatia's competitiveness rank based on TTCI 2007-2019

Year	2007	2008	2009	2011	2013	2015	2017	2019
Rank	38/124	34/130	34/133	34/139	35/140	33/141	32/136	27/140

Source: Authors from Travel & Tourism Competitiveness Report 2007-2019 (https://www3.weforum.org, accessed 5th June 2026)

Southern Europe is among the most important regions for tourism flows. According to Table 5, Croatia's ranking in the Southern European tourism market has improved year over year. In TTCI

2007, Croatia ranked second-to-last (before Turkey), while in TTCI 2019 it ranked 5th (before Turkey, Cyprus, and Malta).

Table 5 Ranking in the Southern European tourism market based on TTCI 2007-2019

TTCI	2007	2008	2009	2011	2013	2015	2017	2019
				Country/Rank				
Spain	15	5	6	8	4	1	1	1
Italy	33	28	28	27	26	8	8	8
Portugal	22	15	17	18	20	14	14	12
Greece	24	22	24	29	32	24	24	25
Turkey	52	54	56	50	46	44	44	43
Cyprus	20	24	21	24	29	52	52	44
Malta	26	25	29	26	24	36	36	35
Croatia	38	34	34	34	35	32	32	27

Source: Authors from Travel & Tourism Competitiveness Report 2007, 2008, 2009, 2011, 2013, 2015, 2017, and 2019 (https://www3.weforum.org, accessed 5th June 2026)

Following a change in the methodology for measuring tourism competitiveness, Croatia's competitiveness ranking has sharply declined (from 27th in TTCI 2019 to 46th in TTDI 2024). Compared with competitors in the Southern European tourism market, Croatia's destination competitiveness ranking fell from fifth place in TTCI 2019 to eighth place in TTDI 2024, the lowest among the eight Southern European destinations considered (Tables 5 and 6). This decline should not be interpreted as a pure decline in Croatia's actual tourism competitiveness, as its relative position changed under a substantially different measurement framework.

Table 6 Ranking in the Southern European tourism market based on TTDI 2021 and 2024

TTDI	2021	2024
	Country/Rank	
Spain	3	2
Italy	10	9
Portugal	16	12
Greece	28	21
Turkey	45	29
Cyprus	31	30
Malta	35	34
Croatia	46	46

Source: Authors from Travel & Tourism Development Index 2021 and 2024 (https://www3.weforum.org, accessed 5th June 2026)

Table 7 presents scores for the destination in the Southern European tourism market and identifies areas for improvement for the Republic of Croatia to become more competitive. Croatia. The lowest score is in Non-leisure resources, due to a lack of FORBES GLOBAL 2000 HQ locations, global cities, top universities, and non-leisure tourism Digital Demand. A low score for cultural resources results from a lack of world heritage cultural sites, UNESCO Creative Cities, oral and intangible cultural heritage, large sports stadiums, and digital demand for cultural and entertainment tourism. Indicators of T & T demand sustainability show poor scores for inbound length of stay, tourism seasonality, concentration of interest in cultural and natural attractions, and geographic dispersion of tourism. Price's non-competitiveness is a long-standing problem.

Improvements are also needed in the T & T socioeconomic impact (T & T GDP multiplier, T & T employment multiplier, T & T high-wage jobs, T & T labor gender parity).

Comparing the Republic of Croatia with Spain, Italy, Portugal, Greece, Turkey, Cyprus, and Malta serves three purposes. First, it establishes Croatia's relative position within a geographically and tourism-relevant competitive market. Second, it identifies the TTDI pillars where Croatia's performance differs substantially from that of comparable destinations. Third, it helps distinguish weaknesses specific to Croatia from characteristics common across Southern European tourism destinations. Most of these indicate unsustainable, unplanned, uncontrolled, and unregulated tourism development. Compared with competitors, Croatia still has room to improve its prioritization of travel and tourism and its air transport infrastructure. In both areas, Croatia has the worst scores in the Southern European tourism market. One of the paper's most important findings is Croatia's comparatively weak performance in T&T Demand Sustainability. The analysis identifies underlying indicators—particularly seasonality, length of stay, concentration of tourism interest, and geographical concentration—that are highly relevant to the literature on tourism carrying capacity and destination management. This finding is particularly significant for Croatia because the country's strong international tourism performance can simultaneously generate pressures associated with spatial and temporal concentration. Consequently, increasing the number of visitors does not necessarily improve destination competitiveness in a sustainability-oriented framework. The TTDI makes this distinction visible by considering not only tourism demand but also its pressure and distribution.

Table 7 TTDI 2024 scores for the Southern European tourism market

		Enabling Environment					T&T Policy and Enabling Conditions			Infrastructure and Services			T & T Resources			T & T Sustainability		
Economy	TTDI rank	Business Environment	Safety and Security	Health and Hygiene	Human Resources and Labour Market	ICT Readiness	Prioritization of T & T	Openness to T & T	Price Competitiveness	Air Transport Infrastructure	Ground and Port Infrastructure	Tourist Service and Infrastructure	Natural Resources	Cultural Resources	Non-Leisure Resources	Environmental Sustainability	T & T Socioeconomic Impact	T & T Demand Sustainability
Spain	2	4,92	6,14	5,99	4,75	6,05	5,73	5,01	3,60	6,06	4,92	5,46	4,95	6,64	4,81	5,39	4,25	3,34
Italy	9	4,89	5,79	5,88	4,68	5,85	5,23	4,80	3,15	5,24	4,79	4,60	5,00	6,74	4,23	5,37	3,46	3,53
Portugal	12	4,97	6,55	6,17	4,72	6,02	5,14	4,90	3,63	5,29	4,35	4,62	3,39	4,42	3,88	5,20	4,76	3,26
Greece	21	4,47	5,30	6,34	4,32	5,85	5,43	4,80	3,16	5,52	3,73	5,95	3,03	3,01	3,33	5,23	4,29	3,00
Turkey	29	3,55	4,96	4,85	3,52	5,29	6,12	4,16	5,19	5,50	3,72	3,40	3,50	4,96	4,23	4,18	4,32	3,10
Cyprus	30	4,96	5,79	6,21	4,82	5,69	5,34	4,78	3,82	4,95	3,59	6,50	1,74	1,61	2,34	4,82	4,02	3,39
Malta	34	5,12	6,23	6,41	4,65	6,09	5,54	4,72	3,77	4,43	4,05	4,87	1,68	1,58	1,94	4,11	4,03	3,87
Croatia	46	4,27	6,25	6,01	4,17	5,67	4,84	4,70	*2,96*	3,68	3,85	5,17	3,54	*2,25*	*1,67*	5,22	*3,44*	*2,61*

Source: Authors from Travel & Tourism Development Index 2024, p.37; (https://www3.weforum.org, accessed 5th June 2026)

The findings contribute to the broader literature on tourism destination competitiveness by showing how destination assessment shifts when competitiveness is evaluated through a sustainability- and resilience-oriented framework. This interpretation aligns with longstanding literature that treats destination competitiveness as a multidimensional, dynamic construct encompassing economic performance, attractiveness, resources, infrastructure, destination management, residents' well-being, and sustainability (Ritchie & Crouch, 1993, 2003; Dwyer & Kim, 2003). Cucculelli and Goffi's analysis of Italian destinations found that sustainability-related factors

were positively associated with several measures of destination competitiveness and that their influence could be substantial relative to other competitiveness factors (Cucculelli & Goffi, 2016). Their results support the argument that environmental and broader sustainability conditions should not be treated simply as constraints on competitiveness; they can constitute resources and capabilities that contribute to long-term competitive performance. This paper's results extend this argument. Rather than testing whether sustainability statistically increases competitiveness, the present study shows how incorporating sustainability changes the empirical diagnosis of competitiveness.

4. CONCLUSION

Despite some limitations, TTCI and TTDI are valuable indicators of tourism development. The TTCI methodology, focused on economic competitiveness and tourism attractiveness, produced better results for Croatia's travel and tourism competitiveness than the TTDI methodology, which emphasizes sustainable, planned, controlled, and resilient tourism development.

According to the data analysis, after the change in the methodology for measuring tourism destination competitiveness, Croatia's overall competitive rank fell from 27 (TTCI 2019 ranking) to 46 (TTDI 2024 ranking), indicating that Croatia performs relatively weakly in pillars associated with sustainable, planned, controlled, and resilient tourism development. Because the two indices differ substantially in their conceptual frameworks, indicators, and aggregation procedures, this change should not be interpreted as a direct measure of deterioration in Croatia's tourism competitiveness. Rather, it indicates that Croatia performs less favorably under the broader TTDI framework, which places greater emphasis on sustainability, socioeconomic impacts, and tourism-demand pressures.

4.1. Theoretical implications

This paper empirically demonstrates how shifting from the World Economic Forum's Travel & Tourism Competitiveness Index (TTCI) to the sustainability-oriented Travel & Tourism Development Index (TTDI) alters the assessment of Croatia's tourism destination competitiveness. By comparing Croatia's performance across the two tourism competitiveness measurement frameworks and benchmarking it against selected Southern European competitors, the study shows that an assessment that incorporates environmental sustainability, socioeconomic impacts, tourism-demand pressures, and resilience yields a substantially different diagnosis than one focused primarily on tourism competitiveness and attractiveness. Through the Croatian case and Southern European benchmarking, the paper shows how the substantive diagnosis of destination competitiveness changes when a sustainability-oriented measurement replaces the traditional competitiveness framework. The study further identifies the TTDI pillars in which Croatia exhibits the greatest relative weaknesses and, consequently, where policy intervention may contribute most to improving the country's long-term destination competitiveness and sustainable tourism development. Because no scientific paper analyses Croatian tourism competitiveness using both WEF indices, this analysis fills a substantial gap in the literature.

4.2. Practical implications

To strengthen its competitive position and address weaknesses in current tourism development, tourism policymakers should focus on the following TTDI pillars: Non-leisure resources, Cultural resources, T&T demand sustainability, Price competitiveness, and T&T socioeconomic impact. Improvements in travel and tourism prioritization and air transport infrastructure are also needed. The extent and attractiveness of factors that drive business and non-leisure travel should be enhanced, and the promotion and development of cultural resources should be prioritized.

Policymakers also need to improve strategies to reduce overcrowding, demand volatility, and other potentially unsustainable demand trends. Regarding pricing policy, policymakers should reevaluate value for money. On the socioeconomic impacts of travel and tourism, policymakers should consider providing high-wage jobs and promoting gender equality in the workforce.

4.3. Limitation and future research

Despite this paper's contributions, several limitations remain. The methodology used (descriptive analysis) provided limited analytical depth. Another limitation is the lack of detection of Croatian competitiveness across all indicators for each pillar. The study identifies differences in measured destination performance but does not establish causal relationships between pillar indicators and Croatia's overall destination competitiveness.

Future research should focus on a more detailed, systematic quantitative analysis of all indicators for each pillar to more precisely identify areas to improve Croatia's overall competitiveness and its position in the Southern European tourism market.

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