



An overview of literature on destination competitiveness: A theoretical analysis of the travel and tourism competitiveness index

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Abstract:

Tourism destinations have long recognized the importance of competitiveness in fostering growth and development within the travel and tourism sector. This study delves into the concept of tourism destination competitiveness, particularly in the context of the Travel and Tourism Competitiveness Index (TTCI) developed by the World Economic Forum (WEF). The TTCI serves as a global benchmark, evaluating the factors and policies that contribute to a country's ability to sustainably and resiliently develop its travel and tourism (T&T) sector. Initially introduced in 2007, the index has undergone continuous refinement to capture the evolving dynamics of the T&T industry and its impact on economic progress. This study sheds light on the implications and challenges associated with the TTCI, emphasizing the need for further refinement to enhance its effectiveness. Despite ongoing improvements, the TTCI remains a valuable tool for comparing the competitiveness of different countries, offering insights into their strengths and areas for improvement.

Keywords: Destination competitiveness, determinants of destination competitiveness, destination competitiveness models. Travel and Tourism Competitiveness Index (TTCI).

1. Introduction:

According to WTTC (2019), the travel and tourism industry generates 319 million jobs globally, supports 1 in 10 jobs, and contributes 10.4% of the global GDP when direct, indirect, and induced effects are taken into consideration. Compared to 2021, when the SARS-CoV-2 epidemic was at its worst, the travel and tourism industry generated 7.6% of the worldwide gross domestic product (GDP) in 2022, a 22% rise. It is noteworthy that this number was just 23% lower than the 2019 records (WTTC, 2023). Consequently, the travel and tourism industry is considered a dynamic market that contributes to the growth, development, and capitalization of economies worldwide (Babat et al., 2023). Kunst and

Ivandić, (2021) argued that it is not surprising that the tourism industry has become increasingly competitive, with cities, regions, and countries vying for the attention of travelers. Xu & Au (2023) indicated that the COVID-19 pandemic has brought the issue of destination competitiveness to the forefront of research and discussion. Because of this, the tourism sector is faced with challenging issues such as how to draw visitors or welcome them back after the pandemic, how to increase the competitiveness of tourism sites in a sustainable way, and how to market them to different stakeholders in the future (Xu & Au, 2023). In terms of a destination's competitiveness, there are numerous studies devoted to this topic, considering measuring its determinants and defining its indicators (Kunst

& Ivandić, 2021). Since the early 1990s, research has progressively shed light on the characteristics and framework of destination competitiveness. Based on Cronje and Du Plessis (2020), until 2018, there were more than 120 studies on destination competitiveness. Most of these studies explored the indicators of the destinations' competitiveness; their research focused on Europe, and the contexts of these studies were related to the types of destinations. The main objective of this literature was to provide a ranking of tourist destinations in terms of competitiveness by using indicators mainly based on tourism destination resources and policies (González-Rodríguez et al., 2023). Claver-Cortes et al. (2007) and Croes & Rivera (2010) try to examine how the economic aspect of tourist destinations is intrinsically linked with their operational efficiency. Another significant work develops theoretical frameworks for tourism competitiveness (Blanke & Chiesa, 2013; Dwyer & Kim, 2003; Ritchie & Crouch, 2003). Another group of studies focuses on the management and marketing of tourist destinations (Andrades-Caldito et al., 2013; Buhalis, 2000; Go & Govers, 2000). Shariffuddin et al. (2023) reviewed the competitiveness of tourism destinations (TDC), concentrating mostly on the characteristics or indicators that are used to measure competitiveness. In line with the above, few studies have summarized research on destination competitiveness and conducted a systematic review of the content of the Travel and Tourism Competitiveness Index (T&TCI), developed by the World Economic Forum. The study aims to focus on the theoretical background of the concept and models of destination competitiveness. Moreover, to demonstrate the evolution of T&TCI and consider its implications for academia and the tourism industry. Given the originality of the paper, this work contributes to our insight on destination competitiveness by identifying the strengths and weaknesses of the T&TCI in terms of tourism competitiveness. In addition, make suggestions for future research initiatives in the tourism industry and its sustained growth and development. However, this study contributes

to the literature by extending the review of the T&TCI as a valuable tool for assessing a country's competitiveness to attract and retain tourists based on their tourism performance across a range of factors, such as destination resources, infrastructure, governmental policies, and the business environment. The study delves into the T&TCI, exploring its implications, limitations, and related research.

2. Tourism Destination competitiveness

Defining tourism destination competitiveness (TDC) is a challenging task, as Hanafiah and Zulkifly (2019) argued that there is no universally accepted definition of TDC available to date. TDC, according to Ritchie and Crouch (1993), is the capacity to raise tourism-related spending and regularly draw tourists while providing them with fulfilling experiences that enhance the quality of life for locals and protect the area's natural resources for future generations. Hassan's (2000) linked the competitiveness of a tourism destination to the economic prosperity of the residents of the country. Dwyer & Kim (2003) expanded on the idea of destination competitiveness, defining it as the capacity of a place to offer a more pleasurable and unforgettable travel experience in comparison to its rivals. Xu and Au (2023) have pointed out that there has been a growing focus on integrating sustainability concerns into the concept of destination competitiveness in recent years. TDC, according to Dupeyras and MacCallum (2013), is a location's capacity to maximize its appeal to both locals and tourists and to offer clients innovative, high-quality tourism services while ensuring that the resources are managed efficiently and sustainably. According to Azzopardi and Nash (2016), competitiveness is the capacity of a destination to identify, leverage, and develop comparative advantages as well as to forge and fortify competitive advantages in order to draw visitors by offering a unique experience that satisfies the need for profit as well as the residents' economic goal of prosperity without endangering the hopes of future generations. Shariffuddin et al. (2023) came to the conclusion that a destination's competitiveness in the tourist industry is determined by its capacity to create and incorporate value-added

products and services, maintain its market share, and outperform rivals. They went on to say that there is no standard collection of objects, characteristics, or signs to assess it because it is a complex idea that is challenging to quantify. Their analysis did, however, point out that being competitive entails applying resources more effectively and should result in faster revenue development. Numerous scholarly works (Hassan, 2000; Dwyer and Kim, 2003; Ritchie and Crouch, 2003; Enright and Newton, 2005; Fernando and Long, 2012) have attested to the significance of examining the competitiveness of tourism destinations and their correlation with the welfare of the local people. The ability of the region to offer goods and services to visitors more effectively than others is correlated with its competitiveness and should result in higher rates of revenue growth. In other words, competitiveness refers to the ability to generate a greater return on investment through the utilisation of existing resources (Hanafiah & Zulkifly, 2019).

3.Measuring Tourism Destination competitiveness

Research indicates that a number of studies have been conducted on the evaluation of competitiveness in the travel and tourism industry. Various studies have proposed different models for measuring the competitiveness of tourism destinations. Kunst and Ivandić (2021) argued that evaluating the competitiveness of a tourist destination is a complex task due to the complexity of the tourism industry and the numerous factors that contribute to it. Since 1994, many models have been created to identify and describe the factors that influence tourism destination competitiveness. From a theoretical point of view, models of destination competitiveness were based on Porter's (1990) diamond model (Hanafiah & Zulkifly, 2019). According to the literature, Porter's findings on competitiveness have been a subject of interest among tourism researchers. Since then, there have been great research efforts to develop different theoretical models to measure TDC (Hanafiah & Zulkifly, 2019). Based on González-Rodríguez et al. (2023), the main objective of these models is to

assess nations according to how effective their tourism is and rank these nations according to their tourism efficiency and their main differences. The data analysis of these models is related to the selection of the basic characteristics of these nations to calculate the efficiency scores (González-Rodríguez et al., 2023). There are three main types of tourism destination competitiveness models as Luštický and Bednářov, (2018) referred: (1) General, theoretical, and conceptual models: These models provide a broad framework for understanding the concept of tourism destination competitiveness. These models identify the key factors that contribute to a destination's competitiveness and discuss how these factors interact with each other. (2) Aggregate index models created by the World Economic Forum (WEF): These models, such as the Travel & Tourism Competitiveness Index (TTCI), measure the competitiveness of tourism destinations using a set of standardized indicators. (3) Various special purpose and empirical models: These models are developed for specific purposes, such as measuring the competitiveness of a particular type of tourism destination. Among the conceptual models of destination competitiveness, the work undertaken by Ritchie and Crouch (2003) stands out as the most comprehensive and widely recognized. The model that modified Porter's Competitiveness Framework (1990) for the environment of tourism destinations recognizes the impact of global macro-environmental forces such as the global economy, terrorism, cultural and demographic trends, etc. and competitive micro-environmental circumstances that affect the functioning of the tourism system associated with the destination (Luštický & Bednářov, 2018). Ritchie and Crouch's model has been widely used by researchers and practitioners to assess the competitiveness of tourism destinations. It has also been adapted and extended to incorporate new concepts and ideas, such as sustainability and resilience (Luštický & Bednářov, 2018).

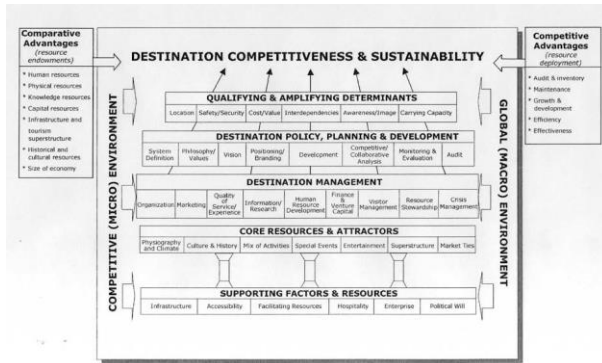


Fig 1: The Conceptual Model of Destination Competitiveness. (Ritchie & Crouch, 2003).

As seen in Fig. 1, the components of destination competitiveness are represented in the model and clustered into five major groups: The destination's qualification criteria, also known as situational conditions, are listed as follows: (1) policy, planning, and development; (2) destination management; (3) attractions and essential resources; and (4) support factors and resources. 36 destination competitiveness indicators are identified by the model in total (Mior Shariffuddin et al., 2023). Dwyer and Kim (2003) produced the Integrated Model of Destination Competitiveness, which introduced a more comprehensive and nuanced framework for evaluating destination competitiveness, building upon the model created by Ritchie and Crouch. The integrated model is a single overall model that incorporates components of the competitiveness of governments, businesses, and travel destinations. The model identifies novel critical variables in situational and demand conditions that influence destination competitiveness (Berdo, 2015). Furthermore, destination management encompasses destination policy, planning, and development aspects as well; they do not form a distinct entity. The following six groups comprise the determinants of destination competitiveness: inherited resources, developed resources, supporting factors and resources, situational conditions, destination management, and demand conditions/conditions. The model has been empirically tested in Australia and Korea (Luštický & Bednářov, 2018). By incorporating these diverse elements, Dwyer and Kim's Integrated Model provides a more holistic approach to understanding and evaluating destination competitiveness, considering both

internal and external factors that influence tourism success (Berdo, 2015).

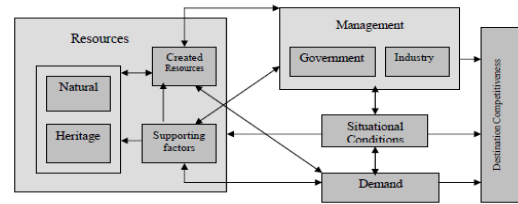


Fig 2: Dwyer and Kim (2003) Model of Destination Competitiveness. (Dwyer & Kim, 2003).

Heath (2003) put forth a model for strategic and sustainable development as well as the competitiveness of destinations in relation to the empirical models. The model employed the analogy of building a house, where the roof stands in for strategic vision, development, and productivity that are critical to enhancing destinations' competitiveness, the dimensions serve as the basis or foundations that provide essential support for competitiveness, the cement offers cohesion, the building blocks are the primary tourism activities, and so on (Mira et al., 2016). According to Heath (2003), the presence of appropriate facilitators—such as natural and artificial attractions, crucial competitiveness elements, safety, health assistance, political stability, security forces, and support resources—is what determines a destination's competitiveness (Mira et al., 2016). The Heath (2003) model demonstrated additional factors such as basic infrastructure, telecommunication, destination location, and economic, social, and cultural relationships with markets (Mira et al., 2016). According to Omerzel (2006), a destination's competitiveness is determined by its capacity to employ its resources effectively as well as its comparative and competitive advantages (Mira et al., 2016). Assessing the function of information systems in decision-making and comprehending the requirements of destinations are also crucial (Mira et al., 2016). It is noteworthy that the elements that determine a tourism destination's competitiveness are ever-changing due to changes in the tourism sector and the emergence of new factors (Hanafiah & Zulkifly, 2019). Numerous authors have put out

different metrics to gauge how competitive travel locations are. Common indicators include those that track the performance and effects of tourism, track a destination's capacity to provide high-quality, competitive tourism services, track a destination's appeal, and outline governmental responses and economic opportunities (Širá & Pukała, 2019). Vasanicova et al. (2021) referred to the fact that the business environment is important when measuring a country's competitiveness indicator. Furthermore, Lasisi et al. (2023) considered tourism ICT readiness among other determinants that contribute to tourism competitiveness. Elsayy (2023) also suggests that paying attention to ICT skills and competencies could eventually lead to a highly competitive advantage for the tourism industry. The factors that determine different studies can be broadly classified into three basic dimensions, as shown in Table 1: (1) Resources: These consist of human, cultural, and natural resources. (2) Infrastructure: This includes the infrastructure related to tourism, transportation, and ICT. (3) Management: This describes the plans, techniques, and advertising campaigns that the location uses to draw and keep visitors. It also covers the administration of companies and institutions involved in the tourism industry.

Table 1: TDC assessment models and their determinants

Author(s)	TDC Determinants
Ritchie and Crouch (1993)	Attractiveness, efficiency, organization, management, organization, and information about the destination.
Go and Govers, (2000)	Location, image, amenities, cost, quality of services, accessibility, tourist attractions, and surroundings.
Dwyer and Kim, (2003)	Resources for the environment and culture, shopping, festivals and special events, entertainment, and activities, general infrastructure, high-quality service, destination accessibility, hospitality, connections to the market, destination management, and marketing Development of human resources, a competitive environment, the location of the destination, the cost, safety and security, visitor statistics, the economic impact of tourism, and government support for tourism.

Gooroochurn, and Sugiyarto, (2005).	Cost, accessibility, technology, infrastructure, and societal advancement environment and human resources.
Gomezelj and Mihalic, (2008)	Resources that have been generated, inherited, and supported, as well as destination management, demand and situational conditions.
Dragičević et al. (2012)	Planning and development determinants, qualifying and amplifying, destination management, core resources and attractor, supporting factors and resources, and destination policy.
Sánchez and López, (2015)	Natural and cultural resources that have been inherited, as well as generated resources such infrastructure for tourism, entertainment, and leisure activities; destination management; marketing; human resources; auxiliary resources; visitor data; pricing competitiveness; demand factors; and natural qualities.
Knežević Cvelbar et al. (2016)	Macroevironment, general infrastructure, resources that are available, infrastructure for tourism, business environment, and destination management.
Nadalipour et al. (2019)	Infrastructures and superstructures related to tourism, businesses in the industry, service quality, funding sources, jobs and investment opportunities, destination prosperity, community well-being, cultural attractions, security, and hospitality, as well as social carrying capacity, climate, natural attractions, transportation capacity, resource consumption, energy management, and environmental cleanliness, as well as tourism demand and visitor satisfaction and behavior.
Risfandini et al. (2023)	Tourist appeal, facilities, good accessibility, distinctive characteristics of tourism locations, safety, cleanliness, and friendliness of the residents.

Source: The study

Over the years, several studies have striven to evaluate the competitiveness of tourism destinations; most of these studies were concerned with identifying the determinants that affect destinations' competitiveness (Pe´rez León et al., 2021). Different indicators of destination competitiveness have been developed to explain traveler preferences (Xu

& Au, 2023). However, assessing a destination's competitiveness needs a thorough comprehension of the competitiveness models that was previously covered (Hanafiah and Zulkifly, 2019).

4.The World Economic Forum (WEF) model: The Travel and Tourism Competitive Index

The World Economic Forum (WEF) launched a competitiveness monitor to develop an index that measures destination competitiveness (Mazanec & Ring, 2011). The index acknowledges the multidimensional nature of competitiveness and includes elements that are expected to make up destination competitiveness, based on the theory of comparative advantage (Mazanec & Ring, 2011). The World Economic Forum (WEF) developed this complex model in 2007 called the Travel and Tourism Competitiveness Index (T&TCI), which was used to rank countries based on their tourism competitiveness (WEF, 2008). The World Economic Forum WEF (2011) developed a yardstick for measuring the competitiveness of those countries individual economic sectors (WTTC, 2007). The T&TCI offers a practical method of assessing destination competitiveness that tackles the intricate problem of tourism competitiveness in a methodical and linear manner. It is based on Porter's idea (1990) that productivity serves as the primary indicator of competitiveness (Kunst & Ivanić, 2021). The World Economic Forum's "flagship publication," the Global Competitiveness Report (GCR), has been released yearly since 1979. The Global Competitiveness Report seeks to provide business executives and politicians with a benchmarking tool through the index (Mazanec & Ring, 2011). The research analyses the performance of 117 economies using the Travel & Tourism Competitiveness Index (TTCI), which offers a unique perspective on each country's areas of strength and development to improve its industry competitiveness (Širá & Pukała, 2019; WEF, 2021). The index evaluates the laws and regulations that support the travel and tourism industry's sustainable growth (WEF, 2021). As a matter of fact, Epoh et al.

(2023) suggest that the travel and tourism competitiveness model be used as a gauge for the elements and regulations that contribute to the attraction of tourist development. According to their analysis, all parties involved may work together with this instrument to increase tourism's competitiveness within each country's economy (Epoh et al., 2023). The T&TCI score, an improved version of the World Travel and Tourism Council's prior methodology, is an overall indicator of a nation's competitiveness in the tourism industry (Kunst & Ivanić, 2021). Based on survey results provided at the conference and secondary data from other international organizations, the inaugural World Economic conference report was released in 2007. 136 nations were categorized based on these factors in terms of their competitiveness. Thirteen pillars of competitiveness, categorized into three categories—the legal framework, the business environment and infrastructure, and the human, cultural, and natural resources—formed the basis of the competitiveness index in 2008. The thirteen pillars are: pricing competitiveness in the travel and tourism sector; human capital; affinity for travel and tourism; environmental sustainability; safety and security; health and hygiene; prioritizing travel and tourism; infrastructure for air, ground and sea transportation; and information and communications technology. (WEF, 2008).

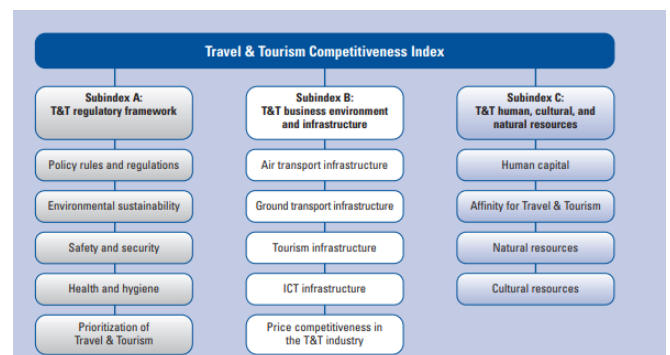


Fig 3: The Travel & Tourism Competitiveness Report 2008 (WEF, 2008).

The Travel and Tourism Competitiveness Report was published in 2007 by the World Economic Forum (TTCR). It changed slightly for the TTCI 2008, but not at all for the 2009 edition. The World Economic Forum reported

on 124 developed and developing countries in 2007. A total of 130 countries were covered in reports from 2008 and 2009, 133 countries in 2009, and 139 countries in 2011. The World Travel and Tourism Council index in 2021 covered 117 economies across 5 regions and 15 sub-regions, but the Travel & Tourism Competitiveness Report in 2017 featured 136 economies. The economies of Algeria, Brunei Darussalam, Burkina Faso, Burundi, the Democratic Republic of the Congo, Ethiopia, Eswatini, Gambia, Guinea, Haiti, Iran, and other countries are not included in the TTDI 2021.

Table 2: The economies covered by the WEF published reports

Year	Number of economies
2007	124
2008	130
2009	133
2011	139
2013	140
2015	141
2017	136
2019	140
2021	117

Source: The study

Considered a direct evolution of the Travel and Tourism Competitiveness Index (TTCI), the World Economic Forum (WEF) recently released the Travel and Tourism Development Index (TTDI) 2021 study (World Economic Forum, 2021). The Travel & Tourism Competitiveness Index (TTCI), which has been released every two years for the previous 15 years, has been replaced by the Travel & Tourism Development Index (TTDI). The Travel and Tourism Development Index (TTDI) is intended to measure and assess the variables and policies that support the robust and sustainable growth of the travel and tourism (T&T) industry, which advances national development (World Economic Forum, 2021). The change from TTCI to TTDI is meant to highlight the industry's role in the broader development of the economy and society. It also reflects the index's wider coverage of concepts related to the development of travel and tourism, such as the increasing significance of resilience and sustainability in T&T growth.

Taking into account the growing demand for collaboration among T&T stakeholders and integrated development initiatives (World Economic Forum, 2021). The 17 pillars, five sub-indices, and 112 distinct indicators that are dispersed throughout the pillars make up the TTDI. The travel and tourism demand drivers, infrastructure, enabling environment, T&T policy and enabling circumstances, and travel and tourism sustainability are the five sub-indices.



Fig 4: The Travel & Tourism Competitiveness Report 2021 (WEF, 2021).

5. Data and methodology of the TTDI

The TTDI's statistical data comes from a variety of sources, with the remaining data coming from the World Economic Forum's annual Executive Opinion Survey. This survey is used to gauge concepts that are qualitative in nature or for which there aren't enough countries with globally comparable statistics (WEF, 2021). Additionally, the World Bank, the International Monetary Fund, the World Tourism Organization, Bloom Consulting, Euromonitor International, IATA, ICAO, Trip Advisor, UNESCO, UN Statistics Division, UNWTO, and the World Health Organization (WHO) provide data for the TTDI (WEF, 2021). Furthermore, T&T development specialists are engaged to offer their perspectives on specific metrics (WEF, 2021).

Table 3: T&TCI pillars and indicators from 2008 to 2013

The Travel & Tourism Competitiveness Index 2008-2010		The Travel & Tourism Competitiveness Index 2011-2013	
Sub-indices and pillars	No. of elements	Sub-indices and pillars	No. of elements
Sub-index A: T&T regulatory framework		Sub-index A: T&T regulatory framework	
Pillar 1: Policy rules and regulations index	5	Pillar 1: Policy rules and regulations index	9
Pillar 2: Environmental sustainability index	3	Pillar 2: Environmental sustainability index	7
Pillar 3: Safety and security	3	Pillar 3: Safety and security	4
Pillar 4: Health and hygiene	4	Pillar 4: Health and hygiene	4
Pillar 5: Prioritization of Travel & Tourism	4	Pillar 5: Prioritization of Travel & Tourism	5
Sub-index B: T&T business environment and infrastructure		Sub-index B: T&T business environment and infrastructure	
Pillar 6: Air transport infrastructure index	6	Pillar 6: Air transport infrastructure index	7
Pillar 7: Ground transport infrastructure	4	Pillar 7: Ground transport infrastructure	5
Pillar 8: Tourism infrastructure	3	Pillar 8: Tourism infrastructure	3
Pillar 9: ICT infrastructure	3	Pillar 9: ICT infrastructure	7
Pillar 10: Price competitiveness in the T&T industry	4	Pillar 10: Price competitiveness in the T&T industry	5
Sub-index C: T&T Human, cultural, and natural resources		Sub-index C: T&T Human, cultural, and natural resources	
Pillar 11: Human capital	10	Pillar 11: Human resources	10
Pillar 12: Affinity for Travel & Tourism	3	Pillar 12: Affinity for Travel & Tourism	4
Pillar 13: Natural resources	4	Pillar 13: Natural resources	5
Pillar 14: Cultural resources	4	Pillar 14: Cultural resources	4

Source: The study

A few steps are involved in the calculation of the TTDI: (1) Normalization: To put all of the indicators on a single scale, the data is normalized. (2) Weighting: The indicators are assigned a weight based on their relative significance. (3) Aggregation: To determine the scores for the pillars, sub-indices, and overall TTDI score, the scores for each indicator are combined (WEF, 2021). Between 2007 and 2021, the methodological approach to T&TCI

calculation has not changed much. Over the course of the 16 years, some changes have been made, though. For example, the Affinity for Travel & Tourism was included as a new pillar in 2009, and the overall number of indicators has increased to 58 in 2007; 60 in 2008–2010; 79 in 2011–2013; 90 in 2015–2019; and 112 in 2021–2023. The updated sub-indices and pillars into (in 2015) and the transition from TTDI to TTDI (in 2021) to give greater consideration to the sector's role in more general economic and social growth as well as the increased demand for integrated development plans and T&T stakeholder participation (WEF, 2021).

Table 4: T&TCI pillars and indicators from 2015 to 2023

The Travel & Tourism Competitiveness Index 2015-2019		The Travel & Tourism Competitiveness Index 2021-2023	
Sub-indices and pillars	No. of elements	Sub-indices and pillars	No. of elements
Sub-index A: Enabling Environment		Sub-index A: Enabling Environment	
Pillar 1: Business environment	12	Pillar 1: Business environment	9
Pillar 2: Safety and security	5	Pillar 2: Safety and security	6
Pillar 3: Health and hygiene	6	Pillar 3: Health and hygiene	6
Pillar 4: Human Resources and Labor Market	9	Pillar 4: Human Resources and Labor Market	9
Pillar 5: ICT Readiness	8	Pillar 5: ICT Readiness	8
Sub-index B: T&T Policy & Enabling Conditions		Sub-index B: T&T Policy & Enabling Conditions	
Pillar 6: Prioritization of Travel and Tourism	6	Pillar 6: Prioritization of Travel and Tourism	5
Pillar 7: International Openness	3	Pillar 7: International Openness	4
Pillar 8: Price Competitiveness	4	Pillar 8: Price Competitiveness	5
Pillar 9: Environmental Sustainability	10		
Sub-index C: Infrastructure		Sub-index C: Infrastructure	
Pillar 10: Air Transport Infrastructure	6	Pillar 9: Air Transport Infrastructure	4

Pillar 11: Ground and Port Infrastructure	7	Pillar 10: Ground and Port Infrastructure	7
Pillar 12: Tourist Service Infrastructure	4	Pillar 11: Tourist Service Infrastructure	5
Sub-index D: Natural & Cultural Resources		Sub-index D: Travel and Tourism Demand Drivers	
Pillar 13: Natural resources	5	Pillar 13: Natural resources	5
Pillar 14: Cultural Resources & Business Travel	5	Pillar 14: Cultural resources	6
		Pillar 15: Non-Leisure Resources	4
	Sub-index E: Travel and Tourism Sustainability		
	Pillar 16: Environmental Sustainability		15
	Pillar 17: Socioeconomic Resilience and Conditions		7
		Pillar 18: Travel and Tourism Demand Pressure and Impact	7

Source: The study

Historically, countries with high-ranking positions have regularly held prominent places in the Travel and Tourism Competitiveness Index (TTCI) (Hanafiah et al., 2017). This is mainly because a nation's general economic development has a direct impact on a number of the components that contribute to the TTCI. With 5.2 points out of seven, Japan, the US, and Spain had the highest Travel & Tourism Development Index (TTDI) scores in 2021. Germany and France scored 5.1 on the TTDI that year, trailing behind.

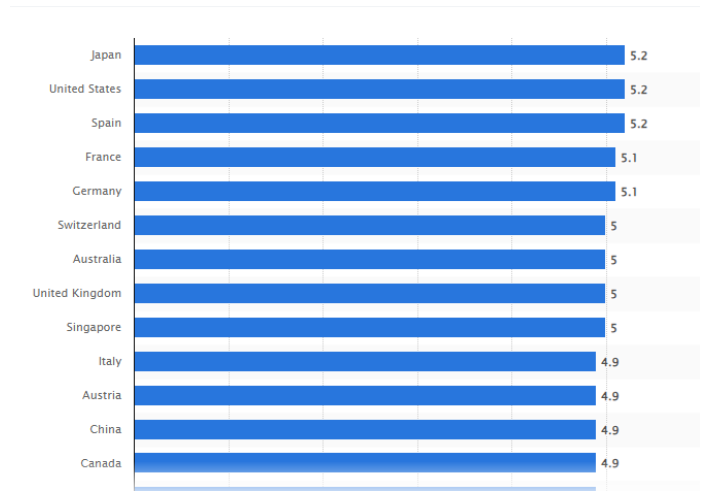


Fig 5: The Leading countries the Travel & Tourism Development Index (TTDI) in 2021 (Statista Research Department, 2023)

6. The implications of Travel and Tourism Index

Basically, the TTCI has traditionally been used to evaluate the effects of policy changes on the travel and tourism sector and to inform those decisions (Lasisi et al., 2023). Wu (2011) mentioned that by highlighting a destination's advantages, the Travel and Tourism Competitiveness Index (TTCI) can raise awareness of the place. Wu (2011) provided evidence that a high index ranking can draw the interest of stakeholders and politicians, which could result in more funding and recognition for the growth of the tourism industry. According to Croes and Kubickova (2013), the index offers a longitudinal view, maintains consistency across time, and permits cross-national comparisons. Furthermore, the index was deemed the most practical by Andrades and Dimanches (2017), Abreu-Novais et al. (2016), and Pulido-Fernández & Rodríguez-Díaz (2016) due to its data accuracy, its strong international reputation, and being a valuable data source for research and decision-making in the sector. Furthermore, the TTCI is considered one of the most famous tools for examining destinations' competitiveness from a benchmarking and macro-level perspective (Lasisi et al., 2023). Different methods for weighing the pillars of the Travel and Tourism Competitiveness Index (TTCI) have been suggested by a number of scholars. While Croes and Kubickova (2013) based their weights on

the correlation between the pillars and the TTCI, Wu et al. (2012) used neural network analysis to calculate objective weights for the pillars. Using multi-criteria decision analysis, Pérez-Moreno et al. (2016) and Pulido-Fernández and Rodríguez-Díaz (2016) offered different weighting strategies. Based on the Travel & Tourism Competitiveness Index for the years 2009–2017, Širá and Pukała (2019) assessed the competitiveness of four nations. By utilizing an index, their research determined which country offers the finest travel and tourism, and they concentrated on identifying the countries' strengths and flaws in order to enhance their future performance.

Using all of the simple variables found in the 2017 Travel & Tourism Competitiveness Index, Fernández et al.'s study (2020) offers a new methodology for creating this synthetic index, which addresses the issues left unresolved by the TTCI, including the aggregation of variables expressed in different measures, arbitrary weighting, and duplication of information. Pérez Leon et al. (2020) used 27 factors categorized into 4 sub-indices of the Travel and Tourism Competitiveness Index to compare the performance of thirty-three Caribbean destinations. Their analysis confirmed the representativeness and consistency of the metrics employed to assess the competitiveness of the locations. The prospect of lowering the number of indicators in the WEF model was also taken into consideration in the study. The weights assigned to the pillars of the Travel and Tourism Competitiveness Index (TTCI) are examined by Rodríguez-Díaz et al. (2021). Their findings demonstrated the usefulness of TTCI signals for a variety of functions, such as alerting, aiding in the development of decision-making plans, and successfully conveying the situation in an area. This method works effectively for controlling competition, tracking it, and modelling different scenarios. The TTCR-2019 was utilized by Martínez-González et al. (2021) to examine Portugal's competitiveness as a travel destination. The results show that the TTCR is a viable and statistically accurate tool for analyzing tourism competitiveness. In a similar vein, it has been

demonstrated that the TTCR holds great potential for researching competitiveness and individual nations in a combined, integrated setting. Uyar et al. (2022) measure changes in visitor arrivals, receipts, and both to see if the Travel and Tourism Competitiveness Index (TTCI) aids in the growth of the tourism industry. Their results verified the existence of a relationship between tourist arrivals and the TTCI main index (Level 1).

Revenues from tourism are connected with the infrastructure index. Tourist arrivals are strongly correlated with price competitiveness, air transportation infrastructure, and cultural resources indices; nevertheless, there is little chance that these factors will positively affect safety and security, human resources, and the labour market. Babat et al. (2023) conducted a thorough analysis of the Travel and Tourism Competitiveness Index (TTCI) with respect to tourism sustainability and came to the conclusion that it is a useful tool for measuring the competitiveness of travel destinations. This is mostly accomplished by looking at the categories of variables, such as infrastructure, T&T policies, environmental permissiveness, and factors that impact the intensity of tourist attractions, such as the natural and cultural resources found in a state or tourism region, as well as the rise in the density of tourist traffic. Their research emphasizes how the Tourism and Travel Competitiveness Index (TTCI) might be a useful instrument for determining a nation's potential as a travel destination. They went on to say that its insights are essential for creating tourist policies that work and drawing funding from the commercial sector. As a result, their analysis concluded that it is critical to guarantee that the methodology of the index appropriately represents the actual conditions of each examined region. Table 4 lists several works of literature that make use of the WEF's aggregate index to measure destinations' competitiveness. Through different approaches, most of this literature is devoted to the analysis of competitiveness levels via destination comparison or to the estimation of specific destinations' competitiveness.

Table 5: Research based on WEF’s aggregate index to measure destinations’ competitiveness

Author(s) / year	Article title	Journal
Mazanec and Ring, (2011)	Tourism Destination Competitiveness: Second Thoughts on the World Economic Forum Reports	Tourism Economics
Popesku and Pavlovic (2013)	Competitiveness of Serbia as a Tourist Destination - Analysis of Selected Key Indicators	Marketing
Ćirstea, (2014)	Travel & Tourism Competitiveness: A Study of World's Top Economic Competitive Countries	Procedia Economics and Finance
Jovanović et al. (2014)	Homogeneity analysis of south-eastern European countries according to tourism competitiveness performances	Economic Research – Ekonomska Istraživanja
Kovalov et al. (2017)	Evaluation of Tourism Competitiveness of Ukraine's Regions.	Journal of Environmental Management & Tourism
Krstić et al. (2017)	Tourism industry and national competitiveness: a sub-Saharan Africa countries perspective	Ekonomika
Fernández et al. (2020)	Determinants of tourism destination competitiveness in the countries most visited by international tourists: Proposal of a synthetic index	Tourism Management Perspectives
Pérez León et al. (2020)	An approach to the travel and tourism competitiveness index in the Caribbean region	International Journal of Tourism Research
Kunst and Ivandić, (2021)	The viability of the travel and tourism competitiveness index as a reliable measure of destination competitiveness: the case of the Mediterranean region	European Journal of Tourism Research
Martínez-González et al., (2021)	Study of the Tourism Competitiveness Model of the World Economic Forum Using Rasch’s Mathematical Model: The Case of Portugal	Sustainability
Uyar et al., (2022)	Travel and tourism competitiveness index and the tourism sector development	Tourism Economics

Source: The study

7. Criticisms of the Travel and Tourism Index

Numerous studies point out the different limitations of the TTCI (Lopes et al., 2018; Pulido-Fernandez and Rodríguez-Díaz, 2016). Krugman (1996) criticizes the concept of competitiveness as defined by the Global Competitiveness Report, which was developed by the WEF as “*the set of institutions, policies, and factors that determine the level of productivity of a country*” (WEF, 2010, p. 4). The criticism is based on the lack of emphasis on comparative advantage. Additionally, one of the disadvantages of the Travel and Tourism Competitiveness Index is that it gives equal importance to all the indicators of the index (Jankovic Milic and Jovanovic, 2019). Kunst and Ivandić (2021) added that it cannot be realistic that all the indicators, as well as the pillars, have the same importance for determining a destination's competitiveness. Cvelbar et al. (2016) and Wu et al. (2012) have pointed out that the variables within each pillar are arbitrarily weighted, which could affect the validity and reliability of the index. It has also been shown that the use of simple averages (not

weighted) for the calculation of the TTCI index may not be appropriate since not all indicators have the same effect on competitiveness. Mendola and Volo (2017) claimed that the TTCI does not give any different weight to tourism-related characteristics. Furthermore, Croes and Kubickova (2013) stated that the TTCI failed to involve the destination's performance, which should be taken into consideration when evaluating the destination's competitiveness. Epoh et al. (2023) also criticized the TTCI and focused mainly on the composition of the index, the similarity across nations with different degrees of development, the weighting of variables, and the reliability and validity of the index. Furthermore, Pérez León et al. (2020) considered that the composition of the index combines a variety of data sources, and the weighting of these different sources is arbitrary and may not reflect the relative importance of different factors in determining tourism competitiveness. They added that the variables included in the TTCI are not well-defined or theoretically justified. This makes it difficult to interpret the results of the index and draw meaningful conclusions about the competitiveness of different destinations. Rodríguez-Díaz and Pulido-Fernández, (2020) pointed out that the TTCI is often used to compare the competitiveness of countries at different levels of development. However, this is problematic because the factors that determine tourism's competitiveness are likely to vary depending on a country's income level and other characteristics. Regardless, a number of problems with TTCI's ability to explain destination competition have been brought to light, and TTCI is still considered an excellent contribution to tourism competitiveness (Dwyer et al., 2011). Kunst and Ivandić. (2021) propose some suggestions to enhance the index, as follows: (1) Incorporating indicators that directly measure tourist experiences (2) Replacing inaccurate or biased indicators that inadequately represent a destination's tourism offerings, particularly in developing countries. (3) Increasing the index's flexibility to better assess destination competitiveness among countries with distinct tourism products that

compete with each other. (4) Abandoning the equal weight system for indicators, pillars, and sub-indices to better reflect contemporary consumer behavior.

8. Theoretical and Managerial Implications

Applying the Travel and Tourism Competitive Index, or TDC models in general, can support host communities and contribute to tourism development. The theoretical implications of the index for researchers are that it provides a framework for understanding the factors that contribute to the competitiveness of tourism destinations. practitioners, to provide practitioners with valuable insights into the factors that tourists consider when choosing a destination. For policymakers, the index can be used to identify areas where policies are successful and areas where improvements are needed. A thorough grasp of a destination's competitive advantages is essential for managers, as it guides their decisions on infrastructure investments, natural resource management, and cultural initiatives. Moreover, resource allocation strategies must be carefully crafted to maximize performance in terms of tourist arrivals, tourism revenue, and employment. Evaluating tourism destination competitiveness is particularly crucial for governments and Destination Marketing Organizations (DMOs), as they must consider and address various competitiveness factors. While DMOs often rely solely on the Travel & Tourism Competitiveness Index (TTCI) to assess competitiveness, it's important to recognize that the TTCI only measures the competitiveness of comparative advantages.

9. Limitation and Future Research

This study is limited by the fact that the review of the specialized literature is not comprehensive. The current paper only presents a portion of the approaches developed in the last three decades and serves as an illustration of the potential differences, limitations and benefits in approaching the TTCI. Therefore, future research should investigate the perceptions of local residents in (TTCI) and how to improve tourism development strategies and reinforce the

attitude of the host community towards sustainability. In future, Travel and Tourism Competitiveness Index (TTCI) should include an evaluation of every destination features against their main competitors. It would also be of interest, as a future line, to improve the selection of indicators, developing a system of indicators more in line with the measure of tourism competitiveness. Future research directions for the Travel & Tourism Development Index (TTDI). To enhance the TTDI's effectiveness, future research should consider incorporating the following aspects: First, assign weights to each indicator based on its relative importance to the overall assessment of a country's tourism enabling environment. These weights can be derived internally through expert consensus or externally from relevant data sources. Second, introduce dynamic target values for each indicator, gradually increasing the exigency level over time to encourage continuous improvement and innovation within the tourism industry. Third, explore alternative evaluation approaches that complement the current averaging method, such as using weighted averages or employing more sophisticated statistical techniques. Fourth, investigate the potential for reducing the number of indicators used in the TTDI while maintaining the comprehensiveness of the index. This could facilitate broader participation from destinations worldwide. By incorporating these research directions, the TTDI can evolve into a more comprehensive, dynamic, and user-friendly tool for assessing and enhancing tourism development globally.

10. Conclusion

This study delves into the concept of tourism destination competitiveness and the associated determinants that contribute to it. Despite its simplicity, practicality, and widespread adoption for destination competitiveness assessment, the Travel & Tourism Competitiveness Index (TTCI) approach overlooks many of the recommendations outlined in destination competitiveness theory. The TTCI is a valuable tool for assessing and improving the competitiveness of the T&T sector in a country. While it has some

limitations, the TTCI provides valuable insights into the factors that contribute to T&T development and can be used to guide policy decisions, attract investment, and enhance destination marketing. Therefore, it is important for destinations to regularly assess their competitiveness and make adjustments as needed to stay ahead of the curve

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