

Tourism direct GDP: configuration of antecedents and tourism future performance in high-income countries'

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Abstract

Purpose – This study aims to provide a new perspective on the factors determining a country's tourism performance, understand the interrelationships among these factors and explore their implications for the future of tourism in high-income countries.

Design/methodology/approach – The study employs a fuzzy-set qualitative comparative analysis (fsQCA) using five variables from the World Economic Forum's Travel and Tourism Development Index (TTDI). The focus is on identifying seven configurations of antecedents of Travel and Tourism Industry Gross Domestic Product (T&T Industry GDP).

Findings – The study identifies seven configurations of antecedents influencing T&T Industry GDP, revealing how these factors operate in different scenarios, specifically in countries with high and low T&T GDP. These configurations offer insights into potential future pathways for tourism development.

Research limitations/implications – The study implies that tourism is a complex phenomenon influenced by multiple interacting factors. It provides a framework for understanding how different combinations of factors can lead to high or low tourism performance, offering valuable insights for anticipating and shaping the future of tourism.

Originality/value – This study adds value by providing a more nuanced understanding of the tourism industry, challenging the notion of singular effects of variables and highlighting the importance of analyzing multiple, interacting factors in understanding and predicting tourism performance. It contributes to the field of futures studies by offering a tool for anticipating potential future scenarios and their impact on the tourism industry.

Keywords Tourism performance, T&T industry GDP, fsQCA

Paper type Research paper

1. Introduction

The COVID-19 pandemic presented a major blow to economic activity worldwide and the tourism sector has taken one of the hardest hits (Xiang *et al.*, 2021). This is particularly noticeable when looking at the variation in the weight of tourism in the Gross Domestic Product (GDP) in several economies, in the periods before the pandemic and during the pandemic. In 2018, tourism accounted for an average of 4.1% of GDP (\$1,632,940 million) in high-income economies, and, in 2020, that value was less than half, at around 2% (\$887,171 million) (World Economic Forum [WEF], 2022). Given the importance that many countries have given to tourism as a driver for economic growth, it is only natural that more and more studies are appearing on the topic (e.g. Dogru and Bulut, 2018; Lin *et al.*, 2019; Stauermann and Kumar, 2017; Tugcu, 2014), and in particular on the determinants of tourism (e.g. Assaf and Josiassen, 2012; Corne and Peypoch, 2020; Zadeh Bazargani and Kiliç, 2021).

While previous studies have recognized the complex relationship between T&T and Gross Domestic Product (GDP) (e.g. Corne and Peypoch, 2020), understanding how various

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social-economic factors influence this relationship remains crucial. Existing literature often focuses on linear models, potentially overlooking the complex interactions between factors like government expenditure, foreign direct investment, and human capital development (Stevenson *et al.*, 2009). This study addresses this gap by employing fuzzy-set qualitative comparative analysis (fsQCA) to explore how different configurations of five key antecedents (capital investment, government expenditure, country brand strategy, FDI impact, and staff training) influence T&T Industry GDP in high-income economies. This approach allows us to identify not just individual factors, but also the specific combinations that contribute to high or low tourism performance, offering a more nuanced understanding of this dynamic relationship.

These variables were chosen based on their theoretical underpinnings regarding their impact on tourism performance and GDP. For example, Travel and Tourism capital investment is demonstrably linked to infrastructure development and increased capacity, leading to higher visitor numbers and spending (Song *et al.*, 2018). Similarly, government expenditure on tourism promotion directly influences demand through targeted marketing and campaigns, boosting visitor arrivals (Dwyer *et al.*, 2011). Additionally, country brand strategy plays a crucial role in shaping a destination's image and attractiveness, impacting tourist preferences and choices (Avraham, 2020). Foreign direct investment in the tourism sector not only brings in capital but also transfers expertise and technology, contributing to improved infrastructure and service quality (Seetanah *et al.*, 2022). Finally, staff training enhances the skills and knowledge of tourism personnel, leading to better service quality and visitor satisfaction, which in turn drives repeat visitation and positive word-of-mouth recommendations (Hasan *et al.*, 2020).

Given that the tourism industry is inherently future-oriented, with decisions and investments today shaping the experiences and destinations of tomorrow (McKinley *et al.*, 2020), this study's findings have significant implications for futures studies. By identifying the complex configurations of factors that influence tourism performance, this research provides a valuable tool for anticipating potential future scenarios and their impact on the industry. For instance, understanding how different combinations of capital investment, government expenditure, country brand strategy, FDI regulations, and staff training can lead to high or low tourism contribution to GDP can help policymakers and industry stakeholders make informed decisions that align with their desired future outcomes.

This study addresses the complex nature of tourism, employing fuzzy set qualitative comparative analysis (fsQCA) with complexity theory principles to explore the complex relationships of five antecedents, and to find which combinations of these antecedent factors explain high and low Travel & Tourism Industry Gross Domestic Product (T&T Industry GDP). As such, we consider the following research questions: (1) What configurations of antecedents (Travel and Tourism capital investment, government expenditure, country brand strategy, FDI impact, and staff training) are likely to be associated with high and low Travel and Tourism Industry GDP in the future, and how can these insights inform proactive strategies for tourism development? (2) Are there specific pathways that could lead to optimal tourism performance in the future, considering the unique and evolving contexts of different countries?

While previous studies have already identified tourism as a complex phenomenon (e.g. Darbellay and Stock, 2012), and used configurational approaches (e.g. Corne and Peypoch, 2020), this study contributes to the existing literature by adding a refreshing approach to tourism performance (proxied by T&T Industry GDP) in high-income economies, with a unique set of five antecedent factors – Travel and Tourism capital investment, Travel and Tourism government expenditure, country brand strategy, impact of rules on foreign direct investment, and extent of staff training.

2. Literature review

2.1 Tourism and the economy

Tourism is often seen as a catalyst for regional economic growth, turning natural and socio-cultural resources into tourism products (Lin *et al.*, 2019; Mihalić, 2014). Its economic benefits

include job creation, poverty reduction, attracting investments, and boosting tax revenue and foreign exchange earnings (Adedoyin *et al.*, 2022; Can and Gozgor, 2018; Dogru and Bulut, 2018). Tourism also positively impacts other sectors like accommodation and transportation (Barman and Nath, 2019; Tugcu, 2014).

However, the link between tourism development and economic growth is debated. Understanding this causality is crucial for predictions and decision-making (Zhang *et al.*, 2018). One hypothesis, the tourism-led growth hypothesis, suggests that tourism drives economic growth, originating from the idea that export growth leads to economic growth (Nowak *et al.*, 2007; Dogru and Bulut, 2018). Other hypotheses include growth-led tourism, which posits economic growth drives tourism; the feedback hypothesis, suggesting a mutual relationship; and the neutrality hypothesis, which believes there's no link between the two (Stauermann and Kumar, 2017; Tugcu, 2014).

The validity of these hypotheses varies based on context, such as the country studied or the indicators used (Can and Gozgor, 2018; Lin *et al.*, 2019). Suárez (2014) argues that causality is context-specific, with evidence supporting or refuting claims depending on the situation.

2.2 Travel and tourism industry gross domestic product

Studies in the literature use different variables to measure tourism performance. Some measure more objective tourism data, like tourist expenditure (e.g. Deskins and Seevers, 2011; Sokhanvar, 2019), tourism receipts (e.g. Ağazade and Karasakaloğlu, 2022; Dogru and Bulut, 2018; Sokhanvar, 2019; Zadeh Bazargani and Kiliç, 2021), tourist arrivals (e.g. Adedoyin *et al.*, 2022; Khan *et al.*, 2020) and overnight stays (e.g. Antolini, 2021; Assaf and Josiassen, 2012). Others use more economic-oriented metrics, such as GDP (e.g. Goel and Budak, 2010) or Gross State Product (e.g. Deskins and Seevers, 2011). Meanwhile, this study utilizes T&T Industry GDP as a proxy for tourism performance. Authors like Zadeh Bazargani and Kiliç (2021), and Ağazade and Karasakaloğlu (2022), also deployed T&T Industry GDP in their studies. There are several reasons for adopting this indicator as a measure of performance: (1) focus on economic performance: our study primarily focuses on the economic impact of tourism, T&T Industry GDP is a relevant and widely used indicator; (2) comparative analysis: this indicator allows for comparison across different countries with standardized data from the World Economic Forum's TTDI; (3) focus on GDP as an outcome: Choosing T&T Industry GDP as an outcome variable aligns with our fsQCA methodology, exploring how other factors influence this economic outcome. According to the Organization for Economic Cooperation and Development (OECD) (2022, p. 12), T&T Industry GDP is a fraction of the total GDP that comprises the contributions of each sector made in "response to internal tourism consumption". Studies, however, may use slightly different variations of this variable, such as direct tourism contribution to GDP and indirect tourism contribution to GDP (see OECD, 2022), or use proxies for tourism, such as tourism receipts, as a share of the GDP (e.g. Sokhanvar, 2019).

2.3 Antecedents of travel and tourism industry GDP

This subsection analyses, in detail, five antecedents of T&T Industry GDP and their importance to tourism and the economy.

2.3.1 Travel and tourism capital investment. The tourism sector, due to its need for physical infrastructure and equipment, heavily depends on capital-intensive investments (Tovmasyan, 2021). These investments, essential for transportation and accommodation, often come from private stakeholders like hotel owners, tour operators, and property developers (Perrottet, 2021; OECD, 2017). They play a pivotal role in economic development and job creation (Nguyen *et al.*, 2020). Countries often seek foreign capital to meet tourism's investment demands (Mihalič, 2014). Additionally, governments invest in infrastructure, such as roads, airports, and utilities, supporting tourism directly or indirectly (Mihalič, 2014; OECD, 2017).

The [OECD \(2017\)](#) emphasizes the importance of capital investments for tourism growth, as increasing demand can strain existing infrastructure. Investments, especially in information and communications technology (ICT), enhance the sector's global reach, benefiting both businesses and consumers ([Barman and Nath, 2019](#); [Gholipour et al., 2022](#)). Improved infrastructure, like better transportation, attracts more tourists ([Barman and Nath, 2019](#); [Khan et al., 2020](#)), supporting the tourism-led growth hypothesis ([Adedoyin et al., 2022](#)).

In summary, capital investment positively impacts economic growth and tourism development ([Goel and Budak, 2010](#); [Khan et al., 2020](#); [Tovmasyan, 2021](#); [Dias et al., 2022](#)). [Tovmasyan \(2021\)](#) found that such investments boost the T&T Industry GDP, while [Khan et al. \(2020\)](#) suggest a bidirectional relationship between capital investment and tourism.

2.3.2 Travel and tourism government expenditure. Government action is vital for preserving resources essential for tourism ([Nguyen et al., 2020](#)). Such governmental investments, especially in infrastructure, are unlikely to be initially undertaken by the private sector but are crucial for tourism's functionality. This includes maintenance of public spaces, security, tax incentives, subsidies, and infrastructure development like roads and airports ([Statistical Office of the European Communities. et al., 2011](#)). Security spending, in particular, significantly impacts tourism demand ([Sou and Vinnicombe, 2021](#); [Okafor and Khalid, 2021](#)).

While government spending can promote tourism and economic growth by enhancing infrastructure and destination appeal ([Goel and Budak, 2010](#)), it can also have unintended consequences. Overinvestment can distort private/public capital ratios, affecting private sector returns ([Nguyen et al., 2020](#)). Tax incentives might negatively impact private investment, and public investments can divert resources from other sectors or replace private investment, potentially hindering short-term growth ([Abel, 2017](#); [Goel and Budak, 2010](#); [Leeper et al., 2010](#)).

Research on government expenditure in tourism has shown mixed results. Some studies found negative impacts on tourism metrics ([Antolini, 2021](#); [Cellini and Torrisi, 2013](#)), while others identified positive effects on private investment and tourism development ([Nguyen et al., 2020](#); [Assaf and Josiassen, 2012](#)). The impact of public investment varies by country and context, making it challenging to generalize its effects ([Banerjee et al., 2015](#)). Factors like a country's openness and existing infrastructure level can influence the success of public investments ([Goel and Budak, 2010](#); [Nguyen et al., 2020](#)).

2.3.3 Country brand strategy. Countries compete to attract tourists, making country brand strategy vital for differentiation ([Fetscherin, 2010](#)). However, this strategy extends beyond tourism, aiming to enhance a nation's image, product value, and appeal to foreign investors ([Dinnie, 2022](#); [Hao et al., 2021](#)). Nation branding is multifaceted, involving politics, economy, and various stakeholders, differing from mere product branding ([Fetscherin, 2010](#)). It's about a country's image and reputation, influencing tourism and Foreign Direct Investment (FDI) ([Papadopoulos et al., 2016](#)).

[Fetscherin \(2010\)](#) proposes two methods to measure country brands: consumer-based equity, focusing on consumer perception, and company-based equity, evaluating the brand's impact on exports, tourism, FDI, and immigration. A strong country brand correlates with high exports, tourism, FDI, and skilled immigration ([Fetscherin, 2010](#)). [Gupta et al. \(2021\)](#) also found government marketing efforts positively influence foreign investment. However, the exact relationship between nation branding and FDI remains unclear, with multiple influencing factors but no consensus on their impact ([Papadopoulos et al., 2016](#)).

2.3.4 Legal constraints/barriers to FDI. The tourism industry's capital-intensive nature, encompassing infrastructure development, hospitality facilities, and transportation networks, necessitates significant financial resources. Foreign Direct Investment (FDI) serves as a crucial source of such capital, offering stability compared to volatile international financial markets ([Ağzade and Karasakaloğlu, 2022](#); [Iamsiraroj and Ulubaşoğlu, 2015](#); [Nunkoo and Seetanaah,](#)

2018). While studies highlight its potential to foster economic growth, technological advancement, and innovation (Sabir *et al.*, 2019; OECD, 2023), attracting FDI remains a challenge for many countries due to restrictive legal environments.

Multinational enterprises (MNEs) prioritize various factors before investing, including transparency, ease of entry, robust contract enforcement, and effective intellectual property rights protection (Contractor *et al.*, 2020; Sou and Vinnicombe, 2021). However, several legal constraints and barriers often impede FDI inflows into tourism: (1) Bureaucracy and complex regulations: Onerous administrative procedures, lengthy approval processes, and unclear regulations create bottlenecks and deter potential investors (OECD, 2023; Park, 2023); (2) Foreign ownership restrictions: Strict limitations on foreign ownership percentages in tourism-related businesses create significant hurdles for MNEs seeking substantial control; (3) Unequal enforcement of contracts and regulations: Lack of transparency and inconsistent application of legal frameworks discourage investors wary of uncertain outcomes (Contractor *et al.*, 2020); (4) Weak intellectual property protection: Inadequate safeguards for innovative concepts and technologies hinder investments in new tourism experiences and services.

2.3.5 Extent of staff training. The tourism sector's success hinges on its skilled workforce or Human Capital, crucial for economic growth and productivity (Knollenberg *et al.*, 2022; Goldin, 2016). However, the industry grapples with challenges like high turnover and staffing shortages, exacerbated by the COVID-19 pandemic's impact on hospitality (Matev and Assenova, 2012; Xiang *et al.*, 2022). We acknowledge that, compared to the other variables, staff training operates at a seemingly micro level. However, its inclusion is grounded in our understanding of the complex, multi-layered nature of tourism performance. While macro-level factors like infrastructure investment and government policy undoubtedly play a crucial role, staff training acts as a bridge between macro and micro levels, translating broader strategies into tangible outcomes (Mai *et al.*, 2023). Furthermore, staff training interacts with other factors in your study. For example, effective use of tourism investment might require skilled personnel for project management and maintenance. Similarly, government expenditure on tourism promotion will be more impactful with staff trained in marketing and communication (Seetanah *et al.*, 2022). Therefore, considering staff training alongside macro-level factors provides a more holistic understanding of tourism performance.

Training is integral to modern industries, including tourism, for skill development and employee retention (Malik and Balyan, 2018). It enhances employee well-being, boosts productivity, and equips workers with diverse skills, essential given the tourism sector's high turnover (Knollenberg *et al.*, 2022; Baum, 2015; Bird *et al.*, 2010). While some studies suggest limited economic benefits from workforce quality (Goel and Budak, 2010; Stauermann and Kumar, 2017; Knollenberg *et al.*, 2022), others emphasize the importance of staff training in tourism (Assaf and Josiassen, 2012; WTTC, 2021). This study aims to explore the intricate relationships between these factors and their collective impact on the T&T Industry GDP, introducing complexity theory to understand variable influences based on context.

3. Methodology

3.1 Data and variables

This study deploys five independent variables – travel and tourism capital investment (T&T capital investment), travel and tourism government expenditure (T&T government expenditure), country brand strategy, impact of rules on FDI and extent of staff training – and a dependent variable – T&T Industry GDP. The data was collected from the Travel & Tourism Development Index 2021 of the World Economic Forum (WEF, 2022) in reference to the years 2020 and 2021 (albeit some weights relate to 2019) for high-income economies in 2020. While the chosen timeline (2020–2021) coincides with the COVID-19 pandemic, the data remains relevant for several reasons. Firstly, it can reveal pre-pandemic trends temporarily disrupted by the pandemic. Analyzing these

trends offers valuable insights into recovery potential and understanding how the industry might bounce back. Secondly, the data allows for comparative analysis across countries. Even though the pandemic impacted the tourism industry globally, its effects might be relatively similar across different nations. This enables meaningful comparisons of relative performance and response strategies implemented by different governments and businesses.

According to the [World Bank's \(2020\)](#) classifications by income, high-income economies refer to countries where the gross national income (GNI) per capita was greater than \$ 12,535 (as cited in [WEF, 2020](#)) and includes the following countries: Australia, Austria, Bahrain, Belgium, Canada, Chile, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong SAR, Hungary, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Poland, Portugal, Qatar, Republic of Korea, Saudi Arabia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Arab Emirates, United Kingdom, United States of America, and Uruguay ([WEF, 2020](#)). [Table 1](#) provides a deeper insight into each variable, according to [WEF \(2022\)](#).

3.2 Analytical approach: qualitative comparative analysis

The analysis in this study uses a configurational approach, fsQCA, a type of approach that has seen a rise in popularity in recent years ([Pappas and Woodside, 2021](#)). Fuzzy set qualitative comparative analysis (fsQCA), first introduced by social scientist Charles Ragin, is a technique that combines fuzzy-logic principles with qualitative comparative analysis (QCA) ([Mendel and Korjani, 2013](#)). QCA is a technique of asymmetric data analysis that allows the researcher to take advantage of the strong points of both qualitative and quantitative-based methods, providing the researcher with the ability to explore large numbers of cases without foregoing important contextual data ([Pappas and Woodside, 2021](#)). Compared to other QCA variations (e.g. mvQCA and csQCA), fsQCA is not limited to binary variables ([Pappas and Woodside, 2021](#)). The use of fuzzy sets gives fsQCA the “ability to (. . .) capture variation in set membership in degree” ([Vis and Dul, 2018](#), p. 876). Fuzzy sets were described by [Ragin \(2000](#), p. 316) as a “half-verbal-conceptual and half-mathematical-analytical” language that allowed social scientists to intertwine data and theory – a so-called “bridge” between qualitative and quantitative methods.

FsQCA transports the key tenets of complexity theory to the results and tests for combinatory theories that can explain the intended outcome. As opposed to other methods such as regression analysis which aim to identify the overall impact of independent variables on dependent variables, fsQCA searches to find conditions or combinations of conditions (configurations) that lead to a

Table 1 Variable description	
<i>Variable</i>	<i>Description</i>
T&T industry GDP (US\$ million)	“Travel and Tourism industry direct contribution to GDP, US\$ million”
T&T capital investment (% total capital investment)	“Travel and Tourism capital investment as a percentage of total capital investment”
T&T government expenditure (% government budget)	“Travel and Tourism government expenditure as a percentage of total government budget”
Country brand strategy (0–100)	“This indicator evaluates the accuracy of a National Tourism Organization’s (NTO) Country Brand Strategy”
Impact of rules on FDI (1–7)	“Response to the survey question: “In your country, how restrictive are rules and regulations on foreign direct investment (FDI)?” [1 = Extremely restrictive; 7 = Not restrictive at all]”
Extent of Staff training (1–7)	“Response to the survey question: “In your country, to what extent do companies invest in training and employee development?” [1 = Not at all; 7 = To a great extent]”
Source(s): Authors’ own work	

given outcome (Vis and Dul, 2018). The idea is that examining combinations can facilitate the identification of causal patterns that may not be identified if the variables were examined on their own (Gligor and Bozkurt, 2020).

To carry out this study, five factors (i.e. the independent variables) were chosen as conditions that could be combined in different ways to achieve the same outcome: high (and low) T&T industry GDP (i.e. the dependent variable). Given that causal asymmetry is a characteristic of fsQCA, these factors can be combined to explain high travel and tourism industry gross domestic product as well as low travel and tourism industry gross domestic product – although the combinations that lead to a high outcome may not be the exact opposite of those that lead to a low outcome.

3.2.1 Calibration. Any researcher attempting to perform rigorous research should be cautious about using reliable and valid data. In the case of fsQCA, the researcher must consider another step: calibration (Vis and Dul, 2018). In this step, variables from the original data are converted into fuzzy sets (Pappas and Woodside, 2021).

Fuzzy sets are organized as groups, where each variable belonging to the group is given a score from 0 to 1 which indicates how much it belongs to the group (0 = full exclusion, 1 = full inclusion) (Pappas and Woodside, 2021). Within this range, “three qualitative breakpoints” are defined: full membership (1), full non-membership (0), and the cross-over point (0.5) (Ragin, 2000, p. 270). This shows how fsQCA can identify variation both in kind (i.e. in or out) as well as in degree (i.e. how much) (Vis and Dul, 2018).

The calibration of data into fuzzy sets should follow theoretical guidelines and take into account the context of the study (Ragin *et al.*, 2017). Hence, the choice of thresholds for membership anchors should not be mechanical (Pappas and Woodside, 2021). The definition of these anchors is crucial as the results of the fsQCA analysis will differ based on the anchors chosen (Dul, 2016). Following the recommendations of Ragin *et al.* (2017), the qualitative anchors for this study's analysis were set at 0.95, 0.5 and 0.05 for full membership, cross-over point, and full non-membership, respectively.

4. Results

4.1 Analysis of necessary conditions

Conditions that are always present for the outcome are referred to as necessary conditions (Ragin, 2000, p. 211). Nonetheless, these conditions, by themselves, are not necessarily enough to lead to the outcome (Gligor and Bozkurt, 2020). In fsQCA, conditions with a consistency value above 0.9 are considered necessary conditions, while conditions with a consistency value above 0.8 are considered almost always necessary (Ragin, 2000). According to fsQCA recommendation, the analysis of necessary conditions should precede the analysis of the truth table, which identifies sufficient configurations (Dul, 2016, p. 1516). Therefore, this study commenced its analysis with the analysis of necessary conditions.

The results of the necessary conditions analysis (Table 2), meaning an outcome of a high travel and tourism industry gross domestic product (ttigdp) and the negation of high travel and tourism industry gross domestic product (\sim ttigdp), show that none of the five conditions (nor their negation) passed the consistency threshold of 0.9 which means none of the conditions can be considered necessary.

4.2 Analysis of sufficient conditions for T&T industry GDP

The analysis of necessary conditions is conducted based on the elaboration of the truth table – also referred to as the Boolean chart (Salonen *et al.*, 2021). The truth table presents all logical combinations of causal conditions (configurations) and each of their individual empirical outcomes (Vis and Dul, 2018). Each of these combinations of causal conditions is represented

Table 2 Analysis of necessary conditions

<i>Variable</i>	<i>Consistency</i>	<i>Coverage</i>
T&T capital investment	0.622	0.556
~T&T capital investment	0.694	0.525
T&T government expenditure	0.606	0.534
~T&T government expenditure	0.759	0.582
Country brand strategy	0.667	0.563
~Country brand strategy	0.624	0.497
Impact of Rules on FDI	0.568	0.489
~Impact of rules on FDI	0.759	0.593
Extent of staff training	0.711	0.610
~Extent of staff training	0.577	0.452
Source(s): Authors' own work		

in a row (Ragin *et al.*, 2017). Based on the five conditions, it is safe to assume that this table contained $2^5 = 32$ configurations or, from another perspective, thirty-two rows (Pappas and Woodside, 2021). The number of rows, however, was reduced in the following step, in accordance with a frequency threshold and a consistency cutoff (Fiss, 2011). The frequency threshold was set at 5, meaning that only configurations that had at least 5 empirical cases would be considered (Ragin, 2008). Consistency, on the other hand, refers to the number of empirical cases that lead to the outcome in a configuration – the number of cases in each configuration that lead to the outcome divided by the number of cases in each configuration that do not lead to the outcome (Fiss, 2011). According to Ragin (2008, p. 136), the minimum cutoff value should not be lower than 0.75. In this case, the consistency cutoff was set at 0.8, meaning only configurations with consistency above 0.8 were listed. The literature also advises the researcher to add Proportional Reduction in Inconsistency (PRI) consistency as an additional measure in the truth table – PRI measures the consistency of subset relations (Pappas and Woodside, 2021). This goes hand in hand with what, p. 278) say about how researchers should be aware of simultaneous relations before determining that a row is sufficient to lead to the outcome. This study restrained configurations scoring lower than 0.7 from entering the outcome since lower PRI consistency scores indicate significant inconsistency (Greckhamer *et al.*, 2018).

Afterward, the truth table is reduced to simplified configurations using the truth table algorithm (i.e. Quine-McCluskey algorithm) which is based on Boolean algebra (Fiss, 2011; Mendel and Korjani, 2012). The truth table algorithm relies on counterfactual analysis (Fiss, 2011). Counterfactual analysis assesses the plausibility of logical remainders (i.e. configurations with no empirical observations) (Ragin and Sonnett, 2005, p. 184). This is important because it helps solve the problem of the lack of empirical instances derived from huge numbers of rows in the truth table (i.e. problem of limited diversity) (Fiss, 2011).

The truth table algorithm generates three solutions: complex, parsimonious, and intermediate (Mendel and Korjani, 2013). The complex solution includes every possible combination of conditions – this number of configurations can grow quite large, even when there are few conditions (Pappas and Woodside, 2021). In this solution, no counterfactual cases are included (Ragin and Sonnett, 2005, p. 14). Still, given the potentially very large number of configurations, the complex solution can then be simplified into the parsimonious solution, which, unlike the complex solution, includes *all* counterfactuals (Fiss, 2011). Finally, the intermediate solution is found using counterfactual analysis of the complex and parsimonious solutions (Liu *et al.*, 2017). The intermediate solution includes only easy counterfactuals, as opposed to the parsimonious solution which includes both easy and difficult counterfactuals (Fiss, 2011). Significantly, these solutions allow the researcher to distinguish between core and peripheral conditions (Greckhamer *et al.*, 2018). Core conditions will be present in both the parsimonious and intermediate solutions while peripheral conditions are only present in the intermediate solution (Liu *et al.*, 2017).

Consistency and coverage were used as metrics to assess the goodness of fit of the solution. Consistency measures how consistently an outcome is displayed in cases that share a particular configuration, while coverage determines the empirical significance of a configuration that leads to a specific outcome (Ragin, 2008, p. 44). Unique coverage, on the other hand, describes “how much of the outcome is covered only by a specific path” (Schneider and Wagemann, 2012, p. 133).

It can be inferred, by looking at Table 3, that all configurations can be sufficient for high T&T Industry GDP considering that all configurations along with the overall solution scored higher or equal to the threshold for consistency of 0.8 - as previously mentioned. Regarding coverage, each of the configurations had a unique coverage greater than 0, which means that none of the configurations are redundant (Schneider and Wagemann, 2012, p. 133). According to the results, the three solutions account for a significant amount of the outcome, with an overall solution coverage of 0.72.

We wanted to show the complexities of the factors that affect tourism performance, such as investment levels, GDP size, and tourism income. These factors could make the results hard to

Table 3 Configurations for high and low T&T industry GDP

Configuration	High T&T Industry GDP, USD (ttigdp)			Low T&T Industry GDP, USD (~ttigdp)			
	C1	C2	C3	C4	C5	C6	C7
T&T Capital Investment		⊗	⊗	⊗	●		
T&T Government Expenditure			○			○	○
Country Brand Strategy	⊗	●	○			○	⊗
Impact of Rules on FDI	⊗	⊗	●	○	⊗		●
Extent of Staff Training	●	⊗	○		⊗	⊗	
Consistency	0.85	0.80	0.80	0.85	0.83	0.85	0.88
Raw Coverage	0.43	0.43	0.29	0.50	0.36	0.33	0.35
Unique Coverage	0.03	0.03	0.03	0.17	0.05	0.03	0.05
Overall solution consistency		0.80			0.84		
Overall solution coverage		0.72			0.83		

Note(s): ●-indicate the presence of a condition (core); ⊗-indicate the negation of a condition (core); ○-indicate the presence of a condition (peripheral); ⊗-indicate the negation of a condition (peripheral)

Source(s): Authors' own work

interpret. That is why we used fsQCA to analyze the data. This tool helped us to find different segments within the sample, which seemed homogeneous at first.

The first configuration shows that a combination of high level of extent of staff training (core) with low levels of impact of rules on FDI (core) and low levels of country brand strategy led to a high T&T industry GDP. The second reveals that high country brand strategy (core) with low T&T capital investment (core), low impact of rules on FDI (core) and low extent of staff training, regardless of T&T government expenditure, also led to high T&T industry GDP. The last presented configuration demonstrated that high capital investment along with low T&T government expenditure, low country brand strategy, low impact of rules on FDI (core), and low extent of staff training also led to high T&T industry GDP.

On the other end of the spectrum, low T&T industry GDP can be explained by four different paths, supporting the idea of causal asymmetry (i.e. configurations may not be the logical opposite of configurations that lead to high outcome) (Rihoux and Ragin, 2009, p. 9). The frequency, consistency and PRI threshold were set at the same values as in the analysis of the high T&T industry GDP. The overall solution coverage was 83%, which means a great proportion of low T&T industry GDP was explained by these four configurations. The fourth configuration presented in the table (the first configuration explaining low T&T industry GDP) showed that low T&T capital investment combined with high impact of rules on FDI led to low T&T industry GDP. The fifth solution stated that high T&T capital investment (core), low impact of rules on FDI, and low extent of staff training (core), regardless of T&T expenditure and country brand strategy, also led to low T&T industry GDP. Configuration 6 demonstrated that regardless of T&T capital investment and impact of rules on FDI, high T&T government expenditure, high country brand strategy, and low extent of staff training led to low T&T industry GDP. The last configuration presented revealed that high T&T government expenditure, high impact of rules on FDI (core) and low country brand strategy also led to low T&T industry GDP.

5. Discussion

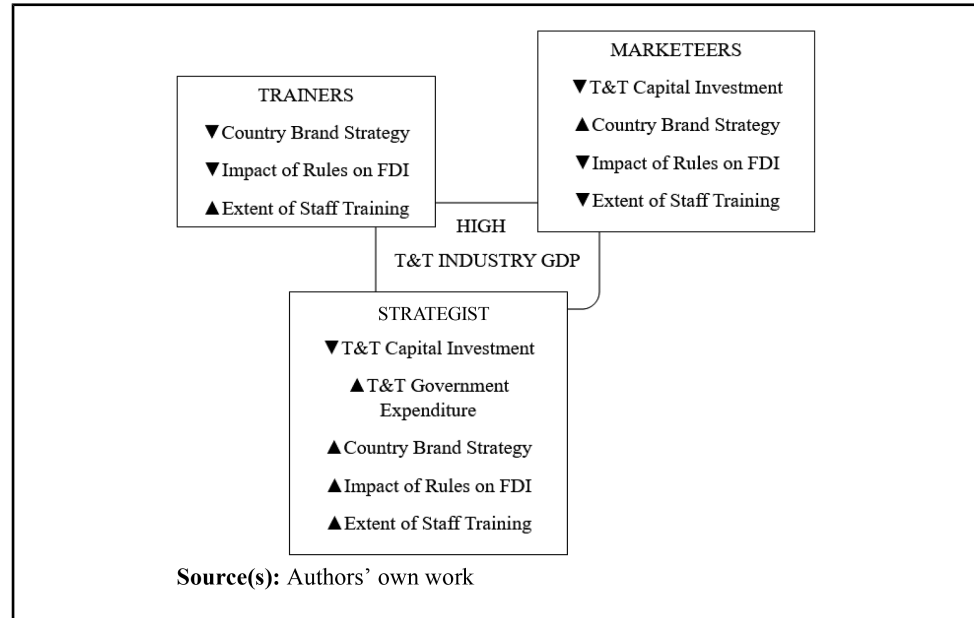
The first configuration shows T&T Industry GDP depending on the extent of staff training when the impact of rules on FDI and country brand strategy are low. This configuration suggests that countries with a weaker country brand and more restrictive rules of FDI, benefit from investing in the personnel. As previously covered in the literature review, investment in the training and the development of the staff is strongly associated with increases in productivity and reduction of staff turnover, which might explain its efficacy in generating high levels of T&T GDP, despite the low levels of country brand and impact of rules on FDI (Bird *et al.*, 2010; Knollenberg *et al.*, 2022; Stauvermann & Kumar, 2017). This configuration is partially concordant with Assaf and Josiassen's (2012) findings, which posit that the level of staff training is a key determinant of tourism performance. However, their claim that restrictions on FDI negatively impact tourism performance is not verified in this configuration. This configuration also contradicts other findings in the literature, similarly supportive of the negative causal impact of restrictive regulation on FDI (e.g. (Mistura and Roulet, 2019; Park, 2023). Destination management not being an antecedent of tourism performance was already demonstrated in Hanafiah and Zulkifly (2019) study. This configuration identifies the context in which a lower country brand can yield stronger tourism performance results. An interpretation of this configuration may be that this configuration is displaying countries that have a weak foreign investment attraction policy but overcome this by having a strong educational policy or culture that incentivizes companies and employees to invest in their skill development. For this reason, this configuration will be called TRAINERS. This configuration, where high staff training compensates for weaker country brand and stricter FDI rules, suggests a future where human capital development becomes increasingly crucial for tourism success, leading to a shift in investment priorities, with more emphasis on training and education programs for tourism personnel.

The second configuration reveals that high T&T Industry GDP can also derive from a combination of a good country brand strategy, low T&T capital investment, low extent of staff training and more restrictive rules on FDI, implying that countries that have lower metrics like this are taking advantage of having a strong country brand strategy to boost their tourism revenue. It is interesting to intersect this configuration with [Fetscherin's \(2010\)](#) study, which linked country brand with high levels of FDI, immigration of skilled workers and more exportation. This might justify the resentment in these countries to make reformations to liberalize rules on FDI, who, instead, rely on a brand strategy to attract FDI, and also, the low levels of staff training, since with the arrival of these workers companies can allocate costs in other areas, which might also be contributing to the high levels of T&T industry GDP. This configuration also highlights the complexity of country brand addressed in [Papadopoulos et al.'s \(2016\)](#) paper. Comparing this configuration with the first configuration, it is possible to observe that, in different contexts, both the absence and the presence of a strong brand strategy can lead to the same result. In fact, and taking into account all configurations, this study could be very useful for anyone who wants to understand in which contexts having a strong country brand strategy can lead to better tourism performance. Given the strong stance of the countries in this configuration in following the strategy of investing in their brand, this configuration is named MARKETEERS. This configuration, where a strong country brand drives high T&T Industry GDP despite low capital investment and stricter FDI rules, highlights the growing importance of brand image and reputation in shaping tourist choices. This alerts to a future tendency where destinations invest more in marketing and branding efforts to attract tourists and investors alike.

Configuration 3 comprises all five conditions, with all but T&T capital investment being present in configuration for the outcome of High T&T Industry GDP to occur. In other words, countries with high T&T government expenditure, high country brand strategy, high impact of rules on FDI, high extent of staff training levels and low T&T capital investment are countries with high T&T industry GDP. It is interesting to observe that T&T capital investment is either low or absent in all configurations that lead to high T&T industry GDP, contradicting studies such as those of [Tovmasyan \(2021\)](#), [Banerjee et al. \(2015\)](#), and [Assaf and Josiassen \(2012\)](#). One reason might be that because the data in analysis regards only high-income economies, where the need for infrastructure is lower than in other economies, capital investments in tourism may not be considered as important for tourism development as they would in another scenario ([Nguyen et al., 2020](#)). On the other hand, the contradictory findings in configurations 1 and 2 regarding the impact of rules on FDI, are in this configuration concordant with the literature. This configuration builds on the studies of [Gupta et al. \(2021\)](#), [Assaf and Josiassen \(2012\)](#), [Contractor et al. \(2020\)](#), [Park \(2023\)](#), [Fauzel \(2020\)](#), and [Mistura and Roulet \(2019\)](#), and provides a context in which less restrictive rules can be beneficial to improve tourism performance. Furthermore, the findings in this configuration regarding government expenditure are also in line with other studies in the literature (e.g. ([Assaf and Josiassen, 2012](#); [Banerjee et al., 2015](#); [Deskins and SeEVERS, 2011](#); [Nguyen et al., 2020](#))). Considering that a government's spending on tourism may also account for capital investments ([Mihalić, 2014](#)), as well as marketing efforts to promote the country's brand ([Gupta et al., 2021](#)), it is plausible to hypothesize that countries in this configuration may have already reached sufficient maturity when it comes to tourism-related infrastructure and prefer to allocate their public resources elsewhere, for instance in the development of a strong country brand strategy, in security, and promotion of tourism corporate training. Therefore, the name of this configuration is STRATEGIST, characterized by high government expenditure, a strong country brand, and less restrictive FDI rules, suggests a future where government policies and investments play a crucial role in shaping the tourism landscape. As such, a more regulated and planned tourism industry, with governments taking a more active role in promoting sustainable and responsible tourism practices can also bring positive results in tourism development.

The configurations that lead to low T&T industry GDP ([Figure 1](#)) also need to be discussed since they add equally relevant content to the literature on tourism performance. Building on [Goel and](#)

Figure 1 High T&T industry GDP configurations



Budak's (2010) findings that investments in infrastructure have perverse effects on economic growth – which according to either the growth-led hypothesis or bidirectional hypothesis also has effects on tourism growth – configuration 5 shows that higher capital investment in tourism may, in fact, lead to lower T&T industry GDP if legislation on FDI is stricter and the levels of staff training remain low. The fact is that capital investments in tourism always come at the expense of reallocating resources from elsewhere (for example, from staff training), which could arguably be more important for tourism development, even if allocated in other sectors (Sokhanvar and Jenkins, 2022). Likewise, low levels of staff training, despite nonconsensual findings in the literature, are always a concerning sign because, at minimum, training is an indispensable tool for tourism operators to retain talent (Bird *et al.*, 2010; Knollenberg *et al.*, 2022). Contrarily, configuration 4, despite leading to the same result – low T&T Industry GDP – depicts a configuration made up of almost mirror opposite causal conditions. In this case, low levels of capital investment and less strict rules on FDI leading to low T&T industry GDP. Although contradicting the majority of studies in the literature on FDI restrictions (e.g. Gupta *et al.*, 2021; Park, 2023), and admitting fewer restrictions are indeed generating more inflows of FDI, this configuration is not totally revolutionary as Sokhanvar (2019) had already found a negative relationship between FDI and tourism growth.

The tenet of causal complexity, that is, the same condition can be part of two or more configurations that lead to opposite outcomes (Prentice, 2020), can be observed in its most natural form when looking at configuration 3, and at configurations 6 and 7, all depicting high T&T government expenditure. At the same time, it shows the richness of the results that can be achieved when performing a configurational analysis. While configuration 3 denies the results of Antolini (2021), configurations 6 and 7 prove that high government spending can, in fact, negatively impact tourism performance if combined with high country brand strategy and low extent of staff training, or low country brand strategy and high impact of rules on FDI, respectively. The potential negative side effects of public investment, already addressed in the literature, such as the crowding-out effect (Abel, 2017), help to explain these results and it would be interesting for future studies to delve deeper into these effects using this study as a starting point, given that it presented situations where public investment led to high T&T Industry GDP and where it led to low T&T Industry GDP.

The configurations leading to low T&T Industry GDP offer cautionary tales for the future. The fourth and fifth configurations, where low capital investment and stricter FDI rules, or high capital investment and low staff training, respectively, lead to low T&T Industry GDP, highlight the potential pitfalls of unbalanced investment strategies. In a future perspective, destinations should prioritize on a more holistic approach to tourism development, considering not only infrastructure and investment but also human capital and regulatory frameworks. The sixth and seventh configurations, where high government expenditure combined with either a strong country brand and low staff training, or a weak country brand and stricter FDI rules, lead to low T&T Industry GDP, underscore the potential negative consequences of government intervention. In these configurations, this could lead to a future where governments adopt a more cautious and strategic approach to tourism policy, carefully considering the potential trade-offs and unintended consequences of their actions.

6. Conclusion

6.1 *Theoretical contributions*

This study significantly contributes to the theoretical understanding of tourism performance and its future trajectories. The use of fsQCA allows to move beyond traditional linear models, embracing the complexity and interconnectedness of factors influencing tourism, which is crucial for futures studies, as it allows for the identification of diverse pathways and scenarios that could shape the future of tourism. The identification of five unique antecedent factors and their configurations provides a nuanced understanding of how different combinations of conditions can lead to high or low tourism performance. The use of the configurational approach is particularly relevant for futures studies, as it allows for the exploration of “what-if” scenarios and the potential impact of different policy interventions or external shocks on the tourism industry. Furthermore, the study’s findings challenge some established assumptions in tourism research, such as the universal benefit of capital investment or the negative impact of restrictive FDI rules. As such, this study highlights the importance of context and the need for a more nuanced understanding of how different factors interact in different settings.

This study also offers significant contributions to the understanding of tourism performance by employing a novel configurational approach and uncovering nuanced relationships between key antecedents and tourism industry GDP. Firstly, it departs from traditional linear models by utilizing fuzzy-set Qualitative Comparative Analysis (fsQCA). This allows for the identification of not just individual factors, but rather specific combinations of factors (configurations) that lead to high or low tourism performance. This approach reveals the complex and context-dependent nature of tourism, where the effect of a single factor can be contingent on the presence or absence of others.

Secondly, the study identifies five unique antecedent factors – travel and tourism capital investment, government expenditure, country brand strategy, impact of FDI rules, and staff training extent – and explores their combined influence on tourism industry GDP. This comprehensive analysis goes beyond previous studies that often focus on a limited number of factors or investigate them in isolation. The findings challenge some existing assumptions, such as the universal benefit of capital investment or the negative impact of restrictive FDI rules, highlighting the need for a more nuanced understanding of these factors within specific configurations.

6.2 *Practical and policy making implications*

This study’s findings also have practical and policy-making implications for shaping the future of tourism. For governments, the research underscores the need for a balanced and strategic approach to tourism development. The varying impacts of government expenditure, depending on the specific configuration of other factors, highlight the importance of tailoring policies to the unique context of each destination, like investing in staff training and skills development when

country brand and FDI attractiveness are low, as suggested by the TRAINERS configuration. Alternatively, in scenarios where a strong country brand exists, governments might focus on maintaining that brand while strategically managing FDI regulations, as indicated by the MARKETEEERS configuration.

For Destination Management Organizations, the study emphasizes the need for adaptability and a nuanced understanding of the factors influencing tourism performance. The absence of a one-size-fits-all solution suggests that Destination Management Organizations must be agile and responsive to the specific conditions of their destinations, namely prioritizing human capital development in some cases, focusing on brand building in others, or finding a balance between different factors depending on the specific configuration.

The study also has broader implications for international organizations and policymakers interested in the future of tourism. The findings suggest that supporting staff training initiatives and promoting human capital development could be a key strategy for enhancing the competitiveness and resilience of the tourism industry in the face of future challenges. Additionally, the research highlights the need for a careful re-evaluation of FDI policies, considering the potential benefits of relaxing restrictions in certain contexts to stimulate tourism investment and growth. Finally, the study underscores the importance of investing in country branding initiatives, as a strong brand image can be a powerful tool for attracting tourists and investors, contributing to long-term tourism sustainability.

6.3 Limitations and future research

Certainly, all studies are subject to limitations. Firstly, the use of T&T Industry GDP only accounts for the direct impacts of these variables. In other words, there could be indirect impacts of these variables on the GDP of other industries that are not accounted for in the analysis. We also acknowledge the limitations of T&T Industry GDP as an outcome variable since it does not capture aspects like tourist satisfaction and experience or the distribution of benefits within the country. Secondly, the conclusions reached in this study are only applicable to the data analyzed, specifically, to high-income countries in 2020–21, which coincides with the pandemic. For this reason, the results could be influenced by this disruptive event. Third, and as has already been discussed with complexity theory, the five variables chosen are not representative of all the variables that go into determining tourism performance. The factors are plentiful, and it would be extremely difficult to conduct a study including every single one of them. These limitations lend themselves to opportunities for further research. Future research could develop a more dynamic analysis, extending the period of observation. This study could significantly improve the explanatory power of these configurations if it is shown that they are part of a larger pattern and not a one-time phenomenon. Finally, more research is needed to understand the specific mechanisms through which different factors influence tourism performance, particularly the potential negative effects of government spending and the complexities of FDI rules.

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