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Decline of the regional traveller? Investigating new factors driving substitution of intra-Caribbean tourism with international travel

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Abstract

Purpose – This study aims to investigate the shift in travel preferences of Caribbean nationals, specifically examining why they are increasingly favouring international destinations over intra-Caribbean travel.

Keywords Travel motivation, Regional travel, Non-price determinants, VFR travel, Migration, Caribbean

Paper type Research paper

Introduction

International tourism has expanded rapidly over recent decades, becoming a key driver of growth, employment and foreign exchange for many economies. Understanding what shapes individuals' travel decisions and destination choices is therefore central to tourism economics, marketing and policy. Travellers weigh multiple price and non-price determinants when deciding whether, where and how often to travel, and destination choice is commonly modelled as a utility maximisation problem in which individuals select the option yielding the highest overall utility (Crouch and Louviere, 2001; Thurstone, 1927; Willis, 2014).

Tourism research typically organises these choices through the push–pull motivation framework, distinguishing internal drivers that stimulate the desire to travel (push factors) from external destination attributes that attract travellers (pull factors) (Crompton, 1979; Dann, 1981; Iso-Ahola, 1982; Pearce, 1988; Pearce and Lee, 2005). More recent work embeds constraints on the "means" to travel, such as money, time and regulatory barriers,

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into pre-trip motivational models (Leiper, 2004; Soldatenko *et al.*, 2023), thereby providing a natural bridge between motivational research and frictions in travel demand.

These theoretical advances are particularly relevant for the Caribbean, where tourism plays an outsized role in socio-economic development. Total contribution of travel and tourism to the gross domestic product (GDP) of most Caribbean countries surpasses the global average and exceeds 50% in some cases, while the region's archipelagic structure makes air travel the primary mode of both international and intra-regional connectivity (Caribbean Development Bank (CDB), 2018; Mejia *et al.*, 2016; Ram *et al.*, 2018; Roberts *et al.*, 2016).

Yet, intra-Caribbean travel has been declining. Between 2007 and 2017, intra-regional traffic fell by 2%, while extra-regional visits rose by about 76% (Ram *et al.*, 2018). The COVID-19 pandemic caused a sharp but temporary collapse in travel; by 2023, total stay-over and cruise arrivals had exceeded pre-pandemic levels, yet intra-Caribbean movements remained well below 2019 benchmarks (Caribbean Tourism Organisation, 2024). This divergence suggests a structural shift in preferences away from regional tourism towards international travel.

The Caribbean has been defined in several ways, including along geographic, cultural and historic lines (Williams and Bunkley-Williams, 2021). This study covers 23 Caribbean countries: 18 Caribbean Community (CARICOM) Member States (full and associate members, but excluding Haiti and Suriname) [1], the three French Caribbean territories [2], Sint Maarten and the US Virgin Islands, collectively home to approximately 7.5 million people [3]. These destinations offer historical and cultural heritage, year-round sunshine, coastal and marine amenities, tropical landscapes and distinctive accommodation; attributes that have long positioned the Caribbean as a premier global tourism region (Chi and Pham, 2024; Jönsson and Devonish, 2008). The reduced appeal of intra-Caribbean travel among residents, despite these attractions, raises important questions about how Caribbean nationals weigh regional destinations against extra-regional options.

The region's diversity in travel policies, import duties, taxes and fees (DTFs) and large diaspora communities create a distinctive context to examine passenger travel motivations. Existing research has largely focused on airfare and associated taxes, fees and charges (TFCs) and on the demand and motivations of international tourists to the Caribbean. Far less is known about how non-price determinants shape the travel preferences of Caribbean nationals themselves. The remainder of the paper proceeds as follows: The second section develops the hypotheses and provides background, while the third section summarises the relevant literature. The fourth section presents the data and methodology, and the fifth section presents the results and discussion, while the final sections discuss policy considerations and provide a conclusion.

Contextual background and hypotheses development

Empirically, we draw on a region-wide survey of Caribbean nationals capturing travel frequency, destination choices, purposes of travel, attitudes towards airfare and a range of non-price determinants – including visa accessibility, migration and visiting friends and relatives (VFR), flight schedules, proximity perceptions and import DTFs – alongside detailed demographic information. Within this framework, the study investigates five interrelated research hypotheses:

H1. High regional airfares and expanding international air connectivity have (separately) influenced Caribbean nationals to substitute intra-regional tourism with international travel.

H2. Greater visa acquisition, visa waivers and migration have (separately) influenced Caribbean nationals to substitute intra-regional tourism with international travel.

H3. High import DTFs have influenced Caribbean nationals to substitute intra-regional tourism with international travel.

H4. Perceptions of geographic and cultural proximity have influenced Caribbean nationals to substitute intra-regional tourism with international travel.

H5. Demographics (age, gender, education level, income, nationality) play a significant role in the substitution of intra-regional tourism with international travel.

By linking these hypotheses in an integrated push–pull pre-trip motivational model, this paper makes three contributions. Conceptually, it extends the push–pull framework, building on Leiper (2004) and Soldatenko *et al.* (2023) to better reflect small, tourism-dependent and archipelagic regions, by embedding the new non-price determinants. Empirically, it provides systematic evidence on how these factors jointly shape the substitution of intra-Caribbean tourism with international travel among residents, explaining the apparent disconnect between rising incomes and declining regional mobility. From a policy perspective, the analysis highlights which levers (beyond airfare reduction) may most effectively address the fall in intra-regional travel by Caribbean nationals.

Between 2007 and 2017, Caribbean air traffic expanded by an average of 4.9% annually, driven almost entirely by extra-regional travel, which rose from 12.8 to 22.6 million passengers, a 76% increase (Ram *et al.*, 2018). Travel to North America, Europe, Asia Pacific and South America increased by 5.9%, 5.2%, 4.7% and 10.4%, respectively, while intra-regional traffic fell by 2%, from 2.8 to 2.7 million. Despite a strong post-pandemic rebound (Figure 1), many destinations remain below 2019's regional visitor levels; for instance, the eight-member Eastern Caribbean Currency Union (ECCU) [4] recorded 266,418 Caribbean visitors in 2019 but only 204,232 in 2024.

This decline in intra-Caribbean travel is worrisome. Economically, it represents lost regional expenditure and foreign exchange leakages, reducing tourism's overall contribution to GDP. For regional airlines, weaker intra-regional demand translates into lower load factors, reduced revenues and financial instability. Since intra-regional travel historically helped sustain tourism during off-peak international periods, its contraction undermines the sector's resilience.

A further trend compounding this shift is the steady increase in visa issuance to CARICOM nationals for destinations outside the region. Between 1991 and 2023, over six million non-immigrant and approximately 733,522 immigrant US visas were granted to CARICOM citizens (Figure 2). Greater visa access and migration opportunities have facilitated travel to the USA and other extra-regional destinations, while encouraging VFR travel. This migration–mobility link strengthens extra-regional travel demand at the expense of regional flows.

Globally, visa accessibility has improved significantly, with the share of people requiring traditional visas falling from 77% in 2008 to 47% in 2023 (World Tourism Organization, 2024). We investigate the impact of visas on the substitution effect from regional to international travel. Another emerging non-fare factor is the rise in shopping trips outside the Caribbean to avoid high import DTFs. DTFs vary widely by country, type of good and regional trade agreements, with some luxury or non-essential products attracting duties of 60% or more. For example, DTFs raise the cost, insurance, freight (CIF) value of jewellery by 55.5% in St. Lucia and 88% in Barbados. Evidence suggests that Caribbean nationals increasingly shop abroad to bypass these charges, returning with undeclared items in their luggage or sending bulk shipments. Thus, the regional tourism challenge is not simply one of preference but of structural incentives. Improving regional affordability, convenience and

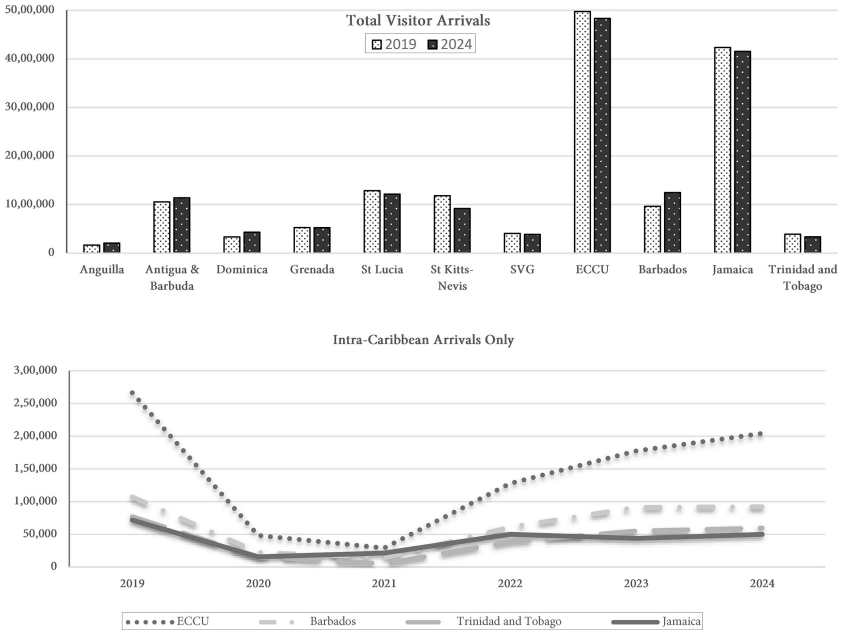

Figure 1. Tourism arrivals (total and intra-Caribbean) – select countries, 2019–2024
Source: Data from regional central banks and statistical offices

policy coordination are critical to reversing substitution from intra-Caribbean to international travel.

Literature review

Thurstone's (1927) seminal work proposed the Random Utility Theory to compare choices between pairs of options through modelling. It posits that individuals evaluate options based on observable attributes and unobservable random factors, selecting the alternative offering the highest overall utility (Crouch and Louviere, 2001; Willis, 2014). In our case, total utility is linked to travel motivation and the factors which determine destination choice. Several frameworks have sought to conceptualise these motivations, including the push–pull model (Crompton, 1979; Dann, 1981), the escape–seeking framework (Iso-Ahola, 1982), the travel career ladder (Pearce, 1988) and travel career patterns (Pearce and Lee, 2005). However, the push–pull framework's unique ability to simultaneously address both the decision to travel and destination choice has seen it become a mainstay in recent tourism literature (Dancausa *et al.*, 2023; Soldatenko *et al.*, 2023; Zou and Curtis, 2025), and our choice for this research.

Push factors such as the desire for escape, relaxation, novelty and social interaction motivate travel, while pull factors such as destination features and perceived benefits attract travellers. This two-domain push–pull model is widely established in the tourism literature (Crompton, 1979; Dancausa *et al.*, 2023; Dann, 1981; Liro, 2021; Park *et al.*, 2015; Soldatenko *et al.*, 2023). Over the years, this push–pull framework has taken many forms and has been extended several times. Early models such as Dann (1981) focused on socio psychological push and pull factors related to destination attractiveness, while authors such as Leiper (2004), Ryan (2003) and Soldatenko *et al.* (2023) have called for the framework to

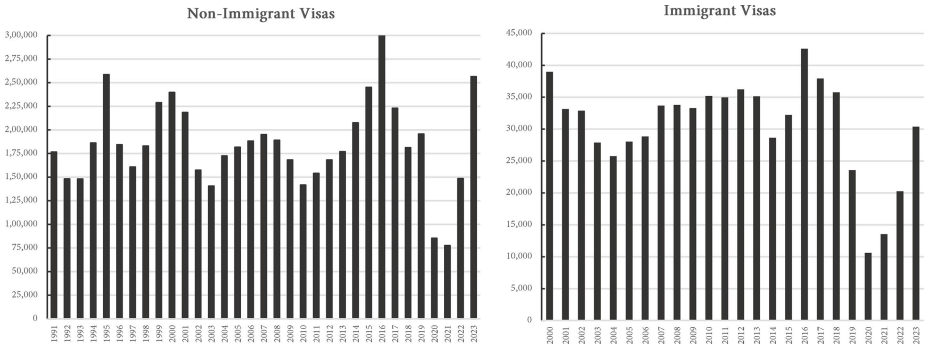

Figure 2. Non-immigrant and immigrant US visas issued to CARICOM nationals, 1991–2023
Source: US State Department Statistics

be broadened to include more complex multi-factorial models that integrate economic, psychological and sociological factors, some of which may be external to the traveller.

Leiper (2004) advanced this model by incorporating "means" variables (e.g. money, time and freedom from constraints) into pre-trip motivations, asserting that unmet needs and perceived deprivations drive travel but only materialise when resources and conditions permit. Soldatenko *et al.* (2023) further integrated these into a comprehensive pre-trip motivational framework that accommodates economic and institutional frictions, allowing for the introduction of financial variables into the traditional push–pull model. This study takes it a step further, arguing that in the context of a dichotomous destination choice, such as between intra-Caribbean and international travel, Soldatenko *et al.*'s (2023) push–pull pre-trip motivational model can be modified to incorporate additional factors specific to this study. Figure 3 reflects our theoretical pre-trip motivation framework for Caribbean travellers.

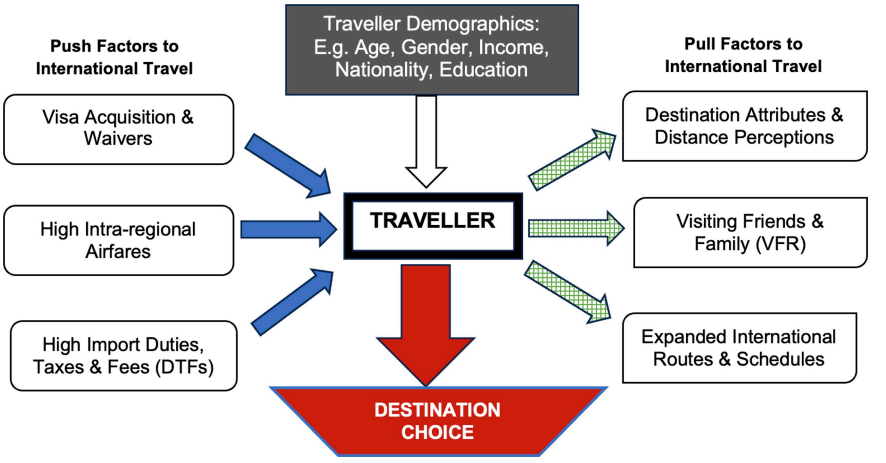

Figure 3. Theoretical framework: pre-trip motivational model of Caribbean tourists
Source: Authors' conception based on Soldatenko *et al.* (2023)

Push factors

In our model, the spread between intra-regional and international travel airfares (inclusive of TFCs) acts as a push factor towards often cheaper international travel. Airfare is widely recognised as a primary determinant of travel demand (Boonekamp *et al.*, 2018; Perera and Tan, 2019; Ram *et al.*, 2018; Zou and Curtis, 2025), with an inverse relationship between price and passenger volumes. Comprehensive literature reviews by InterVISTAS (2007) and Wang and Gao (2021) confirm this relationship. In the Caribbean, the archipelagic geography creates supply-side constraints such as limited schedules and high fares (Roberts *et al.*, 2016). Demand-side factors further push intra-regional airlines' revenue per passenger kilometre above that of international routes, a pattern amplified by TFCs that can raise ticket prices by as much as 54% (40% taxes, 14% charges) (Ram *et al.*, 2018). Lowering TFCs is therefore expected to stimulate intra-regional travel (Caribbean Development Bank (CDB), 2018).

Interestingly, of the over 100 papers reviewed by InterVISTAS (2007) and Wang and Gao (2021), there was none which examined the impact of imported DTFs on travel demand. Existing work generally links the growth of online shopping to reduced shopping travel (Le *et al.*, 2022). In the Caribbean, however, high DTFs appear to counter this effect by encouraging travel abroad for shopping. We argue that the distinctive DTF regimes of developing countries to generate tax revenue, and their potential to increase shopping-related travel compared with developed economies such as the USA, provide fertile ground for our novel focus on DTFs and travel demand.

In Figure 3, we also treat travel restrictions as constraints on the "means" to travel. Greater visa acquisition and waivers can therefore push Caribbean residents towards international trips. Prior studies show that easing visa requirements consistently increases international tourism flows (Reilly and Tekleselassie, 2018; Rossello and Santana-Gallego, 2024; Yudhistira *et al.*, 2021). This study adds to the literature by investigating whether visa access and waivers contribute to substitution from intra-Caribbean to international travel.

Pull factors

VFR is a major pull factor in destination choice (Griffin and Dimanche, 2017; Rajé, 2016; Zentveld, 2023; Zentveld *et al.*, 2022). The stock of immigrants in a country strongly predicts inbound tourism via VFR flows (Etzo, 2016; Griffin and Dimanche, 2017; Leitão and Shahbaz, 2012). Since accommodation and meals are often provided by hosts, VFR trips lower overall travel costs, consistent with evidence that accommodation costs are central to destination choice (Mihai *et al.*, 2023; Ortaleza and Mangali, 2021).

Zentveld *et al.* (2022) correctly predicted that VFR travel would see increased significance following the lockdowns and travel bans during the COVID-19 pandemic. Earlier work documents substantial VFR flows into the Caribbean from diasporas in the USA, Canada and the UK (Duval, 2003; Nurse, 2016; Rajé, 2016). However, no study has examined how outward migration from the Caribbean generates international VFR travel by residents themselves. We address this gap by analysing such flows and their role in reducing intra-regional travel.

Destination-specific attributes also exert strong pull effects. Attractions and salient features motivate destination selection, particularly when aligned with desired benefits and personal values (San Martín and Rodríguez del Bosque, 2008; Soldatenko *et al.*, 2023). Key attributes include historical and cultural resources, beaches, accommodation and activities (Chi and Pham, 2024; Jönsson and Devonish, 2008), all of which shape why tourists choose one destination over another.

Perceptions of distance and proximity further influence attractiveness (Jeuring and Haartsen, 2018). Destinations that are too distant or too proximate (both geographically or culturally) may be viewed as less appealing (Heriqbaldi *et al.*, 2023; Rossello Nadal and Santana Gallego, 2022). Tourists living closer to a location often hold a less positive image than those farther away (Kastenholz, 2010; Rijnks and Strijker, 2013). We therefore test whether Caribbean residents see intra-regional destinations as insufficiently distinct compared with international options.

Expanded international routes and schedules through the entry of additional carriers into the Caribbean is seen as a pull factor to international travel and increased passenger demand (Boonekamp *et al.*, 2018; Calzada and Fageda, 2019; Mejia *et al.*, 2016). In the Caribbean, this makes international destinations more accessible, while high TFCs mean short-haul regional airfares can equal or exceed international fares, reinforcing substitution towards extra-regional travel.

The moderating effects of demographics

Our pre-trip motivational framework (Figure 3) strategically places demographics (age, income, education, gender and nationality) above the traveller to demonstrate the moderating effect on push–pull forces. For example, travellers preferring less culturally and geographically distant destinations tend to be older, with lower incomes and lower to medium education levels (Jeuring and Haartsen, 2018; Weigert *et al.*, 2022). Income is positively associated with travel frequency (InterVISTAS, 2007; Wang and Gao, 2021). Yet, despite World Bank statistics5 confirming rising incomes across most Caribbean countries between 2000 and 2023, intra-regional travel has declined; our study investigates why international trips have expanded instead.

Gender and nationality also shape motivations. Women are more likely to favour low-risk, relaxing, photogenic destinations and to be influenced by social media compared to men (Carballo *et al.*, 2022; Tešin *et al.*, 2022). Marked differences in motivation, destination perception and attribute preferences by nationality are well documented (Kozak, 2002; Özdemir and Yolal, 2017; Yuan and McDonald, 1990). Given that the Caribbean consists of many different countries and cultures, our 23-country design offers a valuable contribution to understanding nationality effects on tourism behaviour.

In summary, the main research gaps which this research addresses are as follows:

- the need to further extend the push–pull model to incorporate new determinants of destination choice;
- the paucity of research explaining why intra-regional Caribbean travel has fallen despite rising incomes; and
- the lack of studies which interrogate the unique context of the Caribbean and similar regions to understand the factors (visa access and waivers, migration, import DTFs, perceptions of distance, expanding international routes and demographic variation) driving substitution of international travel for intra-Caribbean tourism.

Methodology

This study uses a stated-preference survey-based approach to collect primary data from Caribbean nationals. The online questionnaire comprised three sections:

(1) recent travel behaviour;
(2) attitudes and perceptions related to intra-regional and international travel; and
(3) socio-demographic characteristics.

Online surveys provide several benefits, including lower cost, speed, interface advantages, survey tracking and wide geographic coverage of the Caribbean (Dillman, 2011; Pan, 2010). Statistical inference techniques, including cluster analysis, were conducted using IBM SPSS software. Since the key dependent variables (travel frequency, substitution and perceived impact of TFCs and other constraints) are measured on ordered categorical scales, we use non-parametric Kruskal–Wallis tests to assess differences across demographic groups generally and between the clusters generated through cluster analysis.

Survey instrument and sample procedures

The questionnaire contained 40 items, 39 of which were closed-ended. It gathered data on demographics (age, gender, nationality, education, income), travel frequency and purposes and attitudes towards airfare and non-price determinants such as visa accessibility, flight schedules, migration, proximity perceptions and import duties. As with similar tourism research, several questions used Likert scales to measure frequency, importance and agreement (Costa *et al.*, 2020; Moreno, 2010; Vidal Rua, 2020). Perceptions of airfares, taxes, visa access and changes to travel behaviour were measured using four or five-point Likert scales ranging from "strongly disagree" to "strongly agree", or "not at all" to "a lot". Some constructs are measured using single items, which may introduce greater measurement error than multi-item scales. However, this issue is mitigated, as these items capture concrete behaviours (e.g. trip frequency) and specific perceptions (e.g. the impact of taxes on destination choice) and were derived from established push–pull and travel behaviour frameworks, which support their content validity.

The survey was deployed via Survey Monkey between March 2024 and January 2025. Respondents were recruited through geo-targeted digital advertisements across the Caribbean and organic sharing on Facebook, X (formerly Twitter) and LinkedIn. Non-probability samples are vulnerable to bias arising from uncontrolled selection, which can produce distorted estimates when self-selected respondents differ systematically from the broader target population relative to the variables of interest (Fulop and Avvisati, 2022; Schaurer and Weiß, 2020). After comparing the sample's age, gender and income distribution with available regional travel and aviation data, we found no major discrepancies that would materially compromise the analysis, although standard caveats about non-probability sampling remain.

To address concerns about hypothetical bias and related problems in stated-preference studies (Loomis, 2011; Murphy *et al.*, 2005), we incorporated several *ex ante* and *ex post* validity checks. Conditional question paths ensured that only respondents with relevant experiences answered specific items. For example, only those reporting income increases were asked about resulting changes in travel demand, and only visa holders were asked about changes in travel after visa acquisition. Termination questions ended the survey to exclude respondents under 18 or without sufficient travel experience, and careful wording was used to further limit hypothetical bias.

A total of 1,103 valid responses were collected, ensuring that the sample exceeded the 1,067 required for a 95% confidence level with 3% margin of error, ensuring robust statistical reliability and representativeness of the population. Table 1 summarises the sample's demographic profile (only the top five nationalities are shown). Although 83% of respondents held a university degree, higher than the general Caribbean population, regional travel data indicate that more educated individuals are among the most frequent travellers, suggesting the sample is appropriate for analysing travel behaviour.

Table 1. Respondent demographics

Demographics	Frequency *N*	%
Gender		
Male	335	30
Female	754	68
Total	*1,089*	*99*
Age category		
18–24	105	10
25–34	633	57
35–44	234	21
45–54	66	6
55–64	51	5
65–74	14	1
Total	*1,103*	*100*
Monthly income (US$)		
< US$1,000	157	14
$1,001–$1,500	172	16
$1,501–$2,000	180	16
$2,001–$2,500	146	13
$2,501–$3,000	118	11
$3,001–$3,500	65	6
$3,500–$4,000	79	7
> $4,000	186	17
Total	*1,103*	*100*
Education		
Primary	0	0
Secondary	44	4
Post-Secondary	140	13
University	919	83
Total	*1,103*	*100*
Nationality (Top 5)		
Barbados	174	16
Trinidad and Tobago	149	13
SVG	129	12
Antigua and Barbuda	127	12
Jamaica	118	11
Total	*697*	*63*

Cronbach's alpha reliability tests were conducted on attitudinal scales to validate questionnaire items based on their theoretical linkages to each other and to the hypotheses above. A five-item institutional travel facilitation scale displayed acceptable internal consistency ($\alpha = 0.74$). The construct captures visa access, VFR destination demand effects, flight schedules, relative costs of intra-regional and international travel and government responsibility for improving intra-regional mobility. Similarly, the two-item Perceived Destination Similarity scale, which included perceptions on similarity of attractions, people and culture of Caribbean countries, demonstrated good internal consistency ($\alpha = 0.91$). Reliability tests were also conducted around the construct of high DTFs driving travel substitution. A four-item scale, which included the substitutional effects of DTFs, flight schedules, VFR travel and travel time, displayed good consistency ($\alpha = 0.82$).

Results and discussion

Travel Frequency – Nearly half of respondents travel outside their home country about once a year (48.3%), followed by 3–4 times per year (19.4%), every few years (18.0%) and 5 or more times per year (14.2%). Figure 4 shows the purpose of travel of Caribbean nationals ranked by frequency that each type of travel is undertaken.

H1. High regional airfares and expanding international air connectivity have influenced Caribbean nationals to substitute intra-regional tourism with international travel.

Airfare emerged as the dominant determinant of travel decisions: 53.9% rated it as the single most important factor and 44.2% as a top priority, while fewer than 2% considered it unimportant. This aligns with air travel demand studies that consistently identify price as the key driver of passenger volumes (Boonekamp *et al.*, 2018; InterVISTAS, 2007; Wang and Gao, 2021). Within the Caribbean, TFCs on intra-regional flights sharply amplify this price effect. Most respondents (76%) strongly agreed that TFCs make Caribbean travel significantly less attractive than international travel, and 78% believe governments should reduce them to promote intra-regional trips. These results are consistent with Caribbean Development Bank (CDB, 2018) and Ram *et al.* (2018), which show that high TFCs push Caribbean yields per passenger kilometre above international benchmarks and depress demand.

When asked to choose between intra-Caribbean and international destinations at similar airfares (to control for the significant impact of cost), 54.4% strongly agreed and 25% agreed that they would travel internationally, compared with only 7.5% who disagreed. To further probe this issue, respondents were asked if they mind paying a higher airfare for intra-Caribbean travel as opposed to international. Most respondents (44.3%) strongly disagreed with paying more for intra-Caribbean, while 40.5% disagreed. These results confirm that TFC-inclusive airfares act as a core push factor away from regional tourism.

International connectivity reinforces this shift. Some 69% of respondents agreed that current flight schedules make it more convenient to travel outside the Caribbean than within it, while only 8% disagreed. This mirrors broader evidence that expanded route networks and new (often low-cost) carriers stimulate demand towards better-served destinations (Boonekamp *et al.*, 2018; Calzada and Fageda, 2019; Mejia *et al.*, 2016). In our extended push–pull framework, therefore, high intra-regional fares and TFCs are primary push factors, while enhanced international connectivity operates both as a pull factor through greater convenience and choice, and by relaxing constraints on extra-regional travel, jointly driving substitution away from intra-Caribbean tourism. Overall, these findings strongly support *H1*.

H2. Greater visa acquisition, visa waivers and migration have influenced Caribbean nationals to substitute intra-regional tourism with international travel.

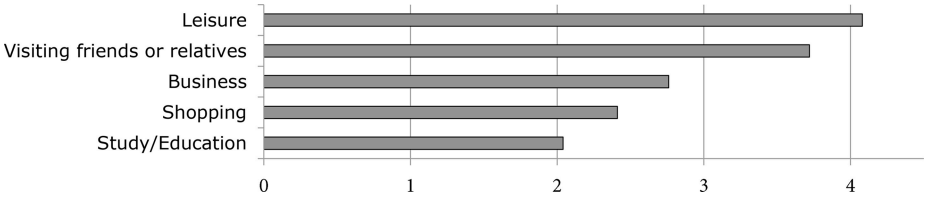

Figure 4. Purpose of travel, ranked by frequency

Most respondents hold visas or waivers for major markets: the USA (83.2%), UK (56.8%), Canada (46.3%), the Schengen Area (44.8%) and Latin America (39.7%). After obtaining visas, waivers or travel clearances, 69% reported reducing intra-Caribbean travel and increasing international trips (32% "by a lot", 24% "by a moderate amount", 14% "by a little"), while 31% reported no change. Figure 5 shows the survey frequency of substitution from intra-regional travel to international trips due to visa acquisition, high DTFs and income growth.

This conforms to empirical work which shows that visa liberalisation significantly increases international tourism flows (Reilly and Tekleselassie, 2018; Rossello and Santana-Gallego, 2024; Yudhistira *et al.*, 2021). Our findings extend this literature by demonstrating that improved visa access can simultaneously crowd out regional trips when international destinations become relatively easier to visit. The magnitude of the reported substitution suggests that visa acquisition often marks a discrete turning point in travel behaviour.

VFR travel is another important non-price factor in the choice between regional and international travel. Some 83.3% of respondents reported having family or friends who migrated to countries outside the Caribbean whom they visit, with a substantial share having done so within the previous six months (42%). When costs are held equal, 45% would rather visit friends/relatives abroad than a new Caribbean destination, compared with 30% who prefer intra-regional travel, aligning with studies that link migration flows and VFR travel (Duval, 2003; Etzo, 2016; Griffin and Dimanche, 2017; Leitão and Shahbaz, 2012; Zentveld *et al.*, 2022).

In the Caribbean context, outward migration and diaspora ties therefore operate in two directions: they generate inbound VFR tourism (Nurse, 2016) but also redirect residents' own trips outward, displacing regional travel. In our extended model, diasporic networks increase the VFR pull of international destinations and relax regulatory constraints. These patterns provide significant support for *H2*.

H3. High import DTFs have influenced Caribbean nationals to substitute intra-regional tourism with international travel.

Although shopping ranks only fourth as a general travel purpose, 86% of respondents reported travelling outside the Caribbean to shop because of high domestic DTFs (Figure 5). The 25–34 and 35–44 age groups account for those travelling internationally most frequently to avoid DTFs (81.5% and 76.5%, respectively). This provides strong evidence for *H3*: high DTFs induce international shopping trips at the expense of regional travel. This pattern contrasts sharply with evidence from developed economies, where growth of online shopping is associated with declining shopping-related travel (Le *et al.*, 2022).

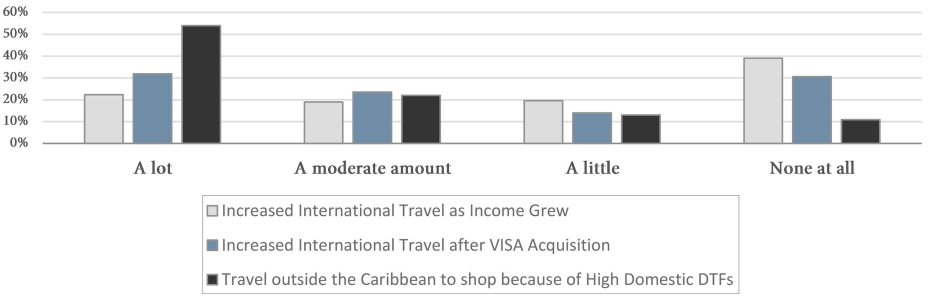

Figure 5. Substitution of International for regional travel after income and visa/travel waivers Increase and High DTFs

In the Caribbean, high DTFs appear to invert this relationship by making foreign retail markets sufficiently more attractive to warrant international trips. Theoretically, DTFs act as a domestic price wedge that lowers the utility of domestic consumption and intra-regional shopping and raises the payoff from international purchases. This fits our extension of the push–pull framework, which incorporates fiscal regimes as a push factor. Although DTFs are secondary to airfare and TFCs in explaining overall travel frequency, the high incidence of DTF-motivated trips indicates that trade tax policy can materially shape destination choice – a finding largely absent from existing air travel demand literature (InterVISTAS, 2007; Wang and Gao, 2021).

H4. Perceptions of geographic and cultural proximity have influenced Caribbean nationals to substitute intra-regional tourism with international travel.

Two survey items isolated the role of distance and proximity perceptions. Findings indicate that geographic or cultural similarities among Caribbean destinations do not materially drive the decline in intra-regional air travel. Some 36.2% and 33.3% strongly disagreed or disagreed that they avoid Caribbean destinations because of similar landmarks and attractions, and 77.8% disagreed that similar people, culture and food reduce the attractiveness of intra-Caribbean travel. Evidence for *H4* is therefore mixed. While respondents do not regard Caribbean countries as too proximate, they rank the desire to experience different cultures, foods and attractions among the main reasons for travelling outside the region (Figure 6), suggesting that "pull" from international novelty rather than from Caribbean similarity drives much extra-regional travel.

This contrasts with studies that found that high cultural or geographic proximity can weaken destination image (Jeuring and Haartsen, 2018; Kastenholz, 2010; Rijnks and Strijker, 2013). In our context, cultural and geographic contrast enhances the appeal of international destinations without implying an active dislike of regional similarity. This nuance is important for policy; it implies that destination differentiation strategies within the Caribbean can complement, but not fully offset, the strong pull of cultural novelty offered by extra-regional markets.

H5. Demographics (age, gender, education level, income, nationality) play a significant role in the substitution of intra-regional tourism with international travel.

Our theoretical framework (Figure 3) predicts a strong regulating effect of demographics on the travel behaviour of Caribbean nationals. Kruskal–Wallis Test results on travel frequency responses revealed statistically significant differences among nationalities (countries with 5 or more respondents), education levels, income and savings groups (Table 2) [6]. Pairwise comparisons were conducted such that each country was compared against all others. Due to the relatively large number of countries, only statistically significant relationships are reported. Results indicate that Dominicans are statistically less likely to travel than

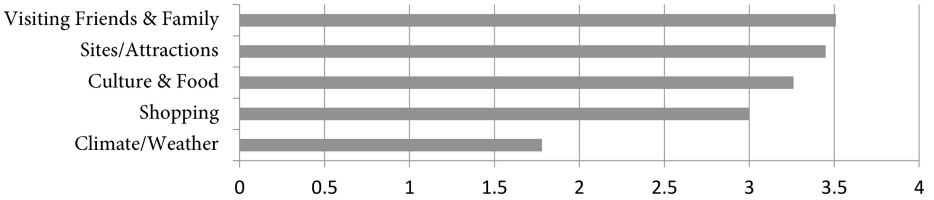

Figure 6. Reasons for travel to countries outside of the Caribbean

Table 2. Kruskal–Wallis tests on travel frequency and attitudes to high TFCs by demographic groups

Demographic	Travel frequency		Effect of high TFCs on destination choice		Regional vs international choice with similar airfare	
	Mean rank	Asymptotic sig.	Mean rank	Asymptotic sig.	Mean rank	Asymptotic sig.
Gender		*0.926*		*0.789*		*0.326*
Male	544.75		551.20		559.38	
Female	554.68		552.66		546.47	
Prefer not to say	599.50		481.06		626.75	
Other	556.58		608.83		735.50	
Age		*0.113*		*0.233*		*0.007***
18–24	569.36		568.48		573.81	
25–34	568.65		539.42		538.73	
35–44	507.61		562.03		542.43	
45–54	519.06		580.47		596.14	
55–64	568.99		559.99		586.73	
65–74	504.18		666.14		813.89	
Education		*0.002***		*0.723*		*0.281*
Secondary	656.03		579.52		503.14	
Post-Secondary	610.16		547.05		528.84	
University	538.16		551.44		557.87	
Income		*0.000****		*0.177*		*0.078*
< US$1,000	680.99		567.66		549.34	
$1,001–$1,500	667.18		520.67		532.29	
$1,501–$2,000	587.08		543.61		552.32	
$2,001–$2,500	569.91		542.63		515.75	
$2,501–$3,000	505.84		533.35		611.19	
$3,001–$3,500	535.13		575.81		528.25	
$3,500–$4,000	472.17		544.32		513.58	
> US$4,000	357.69		590.01		587.66	
Savings		*0.000****		*0.630*		*0.446*
< $2,500	631.73		545.24		536.35	
$2,501–$5,000	545.84		570.72		557.60	
$5,001–$7,500	515.77		554.32		570.19	
> US$7,500	457.49		548.29		552.64	
Nationality		*0.001***		*0.002***		*0.000****

Note(s): *$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

respondents from St Lucia and St Vincent and the Grenadines, that university-educated respondents travel more frequently than those with lower education, and that higher-income and higher savings groups travel more often than lower-income and lower-savings groups. These results are consistent with broader findings that link higher education and income to greater travel frequency and longer distances (Jeuring and Haartsen, 2018; Pennington-Gray and Lane, 2002; Weigert *et al*., 2022).

Regarding the impact of airfare TFCs on destination choice, Kruskal–Wallis tests reveal statistically significant nationality effects but no differences between other demographic variables (Table 2). Jamaicans are statistically less likely than respondents from Antigua and Barbuda, Barbados and Grenada to agree that TFCs reduce the attractiveness of intra-Caribbean travel. On average, respondents from all groups of gender, age, income, savings and education reported that high TFCs make international travel more attractive.

For destination choice when airfares are similar, statistically significant differences arise for only age and nationality. Respondents aged 25–34 and 35–44 are more likely than those aged 65–74 to choose international travel. Jamaicans are more likely to choose international trips than nationals of Antigua and Barbuda, Barbados, Dominica, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines and Trinidad and Tobago. For willingness to pay higher airfare for intra-Caribbean travel than international, statistically significant differences are again limited to age and nationality.

Isolating the Income Effect – Among respondents whose income rose by 5% or more in the past five years, 61% reported substituting international for regional travel, while 39% reported no substitution (Figure 5). Kruskal–Wallis tests show significant differences in substitution across gender, age, education, income, savings and nationality. Respondents aged 25–34 and 35–44, and those in lower- and middle-income groups (<US$1,000; US$1,001–1,500; US$2,001–2,500), are more responsive to income gains than those earning > US$4,000, who already travel internationally more frequently. Pairwise comparisons reveal country differences. For example, Jamaicans are more likely to increase international travel after an income rise than nationals of Trinidad and Tobago, Antigua and Barbuda, St Vincent and the Grenadines and Barbados.

Visa Attainment and VFR – There are no statistically significant differences among demographic variables on the issues of substitution after visa acquisition, and the choice between international VFR travel and an identically priced intra-regional trip (Table 3). Most respondents leaned towards international travel on these questions. This pattern likely reflects both the enabling role of visas and the fact that internationally oriented individuals are more likely to obtain them.

Increasing international flight connectivity – Kruskal–Wallis tests show statistically significant differences by age, education, nationality, income and savings, but not gender (Table 3). Pairwise comparisons reveal that respondents aged 25–34 and 35–44, and those with higher education, incomes and savings, are more likely to report that better international schedules make them choose international over regional trips. There are also meaningful differences between countries.

Distance, Proximity and DTFs – Kruskal–Wallis tests on perceptions of similarity between Caribbean landmarks and attractions show small but statistically significant differences by gender, but no other variables (Table 4). Females are more likely than males to disagree that Caribbean destinations are too similar. On the issue of high domestic import DTFs driving international travel, there are statistically significant differences only between age and nationality groups. The 65–74 age group is statistically less likely than others to travel internationally to avoid DTFs, and nationality differences are limited to a few countries (Table 4).

Table 3. Kruskal–Wallis Tests on travel substitution by demographic groups

Demographic	Visa attainment and visa waivers effect on destination choice		Effect of more international connectivity on destination choice		Effect of VFR travel on destination choice	
	Mean rank	Asymptotic sig.	Mean rank	Asymptotic sig.	Mean rank	Asymptotic sig.
Gender		*0.722*		*0.590*		*0.472*
Male	548.50		542.57		544.37	
Female	552.65		555.04		553.17	
Prefer not to say	532.19		681.38		634.44	
Other	691.75		524.58		721.42	
Age		*0.060*		*0.010**		*0.596*
18–24	573.80		655.32		558.89	
25–34	539.14		548.26		561.12	
35–44	536.87		531.80		539.97	
45–54	599.14		530.52		519.48	
55–64	659.88		569.07		502.08	
65–74	607.64		501.42		624.14	
Education		*0.574*		*0.003***		*0.080*
Secondary	561.17		614.52		654.00	
Post-Secondary	576.55		622.37		536.76	
University	547.82		538.29		549.44	
Income		*0.555*		*0.000****		*0.292*
< US$1,000	577.44		646.45		563.27	
$1,001–$1,500	551.94		601.02		502.65	
$1,501–$2,000	572.44		553.87		566.46	
$2,001–$2,500	524.64		555.71		558.79	
$2,501–$3,000	572.11		494.46		546.31	
$3,001–$3,500	530.98		573.10		534.11	
$3,500–$4,000	503.82		491.96		525.31	
> US$4,000	547.34		476.86		589.99	
Savings		*0.162*		*0.039**		*0.126*
< $2,500	556.90		581.54		543.81	
$2,501–$5,000	518.28		548.58		563.91	
$5,001–$7,500	531.08		532.47		501.18	
> US$7,500	575.56		520.13		575.69	
Nationality		*0.388*		*0.013**		*0.340*

Note(s): *$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Table 4. Kruskal–Wallis Tests on distance, proximity and DTFs by demographic groups

	Similar landmarks and attractions of Caribbean driving international travel		Similar people and culture of Caribbean driving international travel		High import duties taxes and fees driving international travel	
Demographic	Mean rank	Asymptotic Sig.	Mean rank	Asymptotic sig.	Mean rank	Asymptotic sig.
Gender		*0.040**		*0.071*		*0.061*
Male	514.70		518.62		541.59	
Female	567.44		566.92		553.71	
Prefer not to say	551.50		479.31		594.19	
Other	694.50		637.75			
Age		*0.064*		*0.118*		*0.000***
18–24	512.12		530.87		545.89	
25–34	569.73		568.58		529.83	
35–44	530.07		536.12		569.65	
45–54	593.22		568.09		579.15	
55–64	467.23		463.05		629.47	
65–74	530.46		474.64		895.25	
Education		*0.669*		*0.735*		*0.672*
Secondary	519.91		525.61		559.09	
Post-Secondary	566.34		565.08		571.89	
University	551.35		551.27		548.63	
Income		*0.432*		*0.169*		*0.080*
< US$1,000	582.83		594.16		582.26	
$1,001–$1,500	549.87		534.29		578.51	
$1,501–$2,000	519.38		526.54		526.68	
$2,001–$2,500	560.91		567.37		545.10	
$2,501–$3,000	579.60		587.37		536.19	
$3,001–$3,500	583.42		577.32		458.38	
$3,500–$4,000	514.62		501.32		550.83	
> US$4,000	539.90		535.61		575.10	
Savings		*0.198*		*0.248*		*0.111*
< $2,500	567.76		563.56		542.07	
$2,501–$5,000	556.41		567.66		546.40	
$5,001–$7,500	502.53		509.54		517.35	
> US$7,500	546.24		541.99		583.37	
Nationality		*0.427*		*0.737*		*0.000***

Note(s): *$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Taken together, the results strongly support *H5*. Some demographic characteristics are statistically more likely to be associated with destination substitution than others. Variances across countries are in line with earlier work demonstrating nationality-specific differences in motivation, destination perception and travel behaviour (Jönsson and Devonish, 2008; Kozak, 2002; Özdemir and Yolal, 2017; Pizam and Sussmann, 1995). In our context, these differences likely reflect heterogeneous exposure to international routes, income levels, diaspora sizes and baseline travel norms. The absence of large gender differences across motivational factors echoes Jönsson and Devonish's (2008) findings for visitors to Barbados, although small differences in perceptions of cultural similarity remain. Overall, demographics moderate the strength of the main determinants identified under *H1–H4* rather than act as independent drivers, implying that policy should be differentiated for distinct segments, rather than relying on uniform regional strategies.

Cluster analysis

To provide deeper insights, a two-step cluster analysis (BIRCH - Balanced Iterative Reducing and Clustering using Hierarchies) pre-clustering followed by Ward's hierarchical clustering) identified a two-cluster solution as optimal (silhouette = 0.205) after reducing from an initial 10 clusters (silhouette = 0.151). The solution comprised a dominant segment (Cluster 0; 85.6%, $n = 944$) and a smaller segment (Cluster 1; 14.4%, $n = 159$). Gender composition is similar across clusters, though both are female-majority, and age distributions are broadly comparable, with only modest statistical differences.

In substantive terms, Cluster 0 is characterised by higher income, greater savings and higher educational attainment, with greater travel frequency and comparatively higher substitution away from intra-regional travel. This segment reflects financially secure, structurally embedded travellers whose international mobility appears less income-elastic. This segment is disproportionately represented by respondents from Barbados, Trinidad and Tobago, St Vincent and the Grenadines, Antigua and Barbuda and Jamaica.

By contrast, Cluster 1 comprises lower-income and lower-savings respondents with comparatively lower educational attainment and significantly stronger substitution tendencies. This group appears more sensitive to economic constraints and more responsive to income-related changes in travel behaviour, suggesting a segment with higher behavioural elasticity in shifting from regional to international destinations. It is more heavily represented by respondents from St Lucia, St Kitts and Nevis, Antigua and Barbuda, Dominica and St Vincent and the Grenadines.

Kruskal–Wallis tests confirmed that the clusters differ significantly across all key variables: travel frequency ($H = 42.31$, $p < 0.001$), income ($H = 84.98$, $p < 0.001$), age ($H = 10.48$, $p = 0.001$), savings ($H = 28.93$, $p < 0.001$), substitution behaviour ($H = 11.07$, $p < 0.001$) and education ($H = 935.38$, $p < 0.001$). Education and income emerged as the strongest discriminators. Taken together, the findings suggest that substitution behaviour is embedded within distinct socio-economic and geographic strata rather than being evenly distributed across Caribbean travellers. Table 5 summarises the overall results of the study.

Ranking of determinants and policy prioritisation

Survey evidence allows a ranking of determinants by their relative importance in driving substitution from intra-Caribbean to international travel:

Tier 1 – Core price and access determinants (*H1* and *H2*): Airfares and TFCs are the most salient drivers, with near-universal agreement that TFCs reduce the appeal of regional travel relative to international options. Visa acquisition, waivers and migration-linked VFR flows

Table 5. Results summary

Hypothesis	Results
H1. High regional airfares and expanding international air connectivity have (separately) influenced Caribbean nationals to substitute intra-regional tourism with international travel	Supported
H2. Greater visa acquisition, visa waivers and migration have (separately) influenced Caribbean nationals to substitute intra-regional tourism with international travel	Supported
H3. High import DTFs have influenced Caribbean nationals to substitute intra-regional tourism with international travel	Supported
H4. Perceptions of geographic and cultural proximity have influenced Caribbean nationals to substitute intra-regional tourism with international travel	Partially supported
H5. Demographics (age, gender, education level, income, nationality) play a significant role in the substitution of intra-regional tourism with international travel	Supported

also have significant effects. These factors account for most observed substitutions and should be the primary focus of policy.

Tier 2 – Domestic fiscal regimes and shopping travel (*H3*): High DTFs motivate substantial shopping travel abroad, especially among prime working-age cohorts. While not the main motivator of all trips, this channel meaningfully shifts discretionary expenditure and travel away from intra-regional destinations.

Tier 3 – Proximity and destination image (*H4*): Perceived similarity of Caribbean attractions and culture does not significantly deter regional travel, but the desire for "difference" amplifies the appeal of extra-regional trips. These factors shape destination choice at the margin and can be influenced through marketing and product development, but they cannot fully counteract Tier 1 and Tier 2 forces.

Cross-cutting – Demographic moderators (H5): Age, income, education, savings and nationality systematically modulate how strongly travellers respond to these determinants. Policy levers are therefore most effective when targeted at specific demographic and national segments.

Policy implications and recommendations

Building on this ranking, we outline a set of concrete, prioritised policy directions for policymakers and tourism stakeholders in the Caribbean:

- *Closing the Intra-Caribbean Price Gap* – Given the centrality of airfares and TFCs, the immediate priority is to reduce the price disadvantage of intra-Caribbean travel. Options include capping per-passenger charges on regional routes, shifting from flat ticket levies to cost-reflective airport user fees and introducing lower resident TFC tiers for intra-Caribbean itineraries. Fragmented fee regimes across small markets raise transaction costs and undermine route viability (Roberts *et al.*, 2016). A harmonised TFC framework negotiated through regional institutions such as the Caribbean Community (CARICOM) could improve predictability for airlines and facilitate incentives for multi-stop regional routes. While expanded international connectivity is welcome, aviation and tourism strategies should explicitly consider the displacement of regional travel when granting incentives to new international

routes or foreign carriers. Means-tested support for regional carriers or joint ventures that enhance intra-Caribbean flight frequencies can help rebalance the network.

- *Deepening Regional Mobility and Leveraging Diaspora Travel* – Since visas and diaspora ties are strongly linked to preference for extra-regional destinations, the policy response cannot simply seek to reverse migration or restrict international mobility. Accelerating implementation of hassle-free movement within CARICOM and associated territories through mutual ID recognition, streamlined security procedures and digital pre-clearance would reduce the "visa gap" between regional and extra-regional travel, mirroring aspects of the European Union model. At the same time, diaspora travel can be harnessed rather than seen solely as leakage. Airlines and tourism agencies could design products that bundle overseas VFR with intra-Caribbean segments (for example, discounted "Caribbean stopover" packages for residents and diaspora visitors). Since visa acquisition often marks a turning point in substitution behaviour, recent visa recipients constitute a key segment for marketing regional add-ons to international trips (for instance, Caribbean "long weekend" breaks before or after US/UK travel).
- *Adjusting DTFs and Supporting Regional E-Commerce* – To curb DTF-driven international shopping trips, policymakers might selectively adjust duties on goods that strongly motivate shopping travel, rather than cutting rates across the board. Targeted reductions on frequently purchased consumer items could reduce incentives to shop abroad while preserving revenue from less mobile tax bases. Higher duty-free allowances for goods purchased within the Caribbean, combined with stronger enforcement against under-declaration of extra-regional purchases, would further tilt incentives towards regional spending. Facilitating regional e-commerce and logistics solutions that replicate some of the convenience of shopping in major international hubs could also weaken the push towards extra-regional trips.
- *Differentiating Caribbean Destinations* – Although perceived similarity is not a primary deterrent, destination differentiation can complement price and access reforms. Regional campaigns can highlight distinctive cultural, historical, ecological and gastronomic features of individual islands (Chi and Pham, 2024; Jönsson and Devonish, 2008; San Martín and Rodríguez del Bosque, 2008), emphasising "difference within familiarity". The development of themed multi-destination products such as heritage trails, music and festival circuits, culinary routes and eco-tourism clusters can deliver variety comparable to international trips while retaining expenditure within the region. Recent multi-destination initiatives, such as agreements between Barbados and Dominica, provide a useful template.
- *Demographically Targeted and Country-Specific Interventions* – Results also suggest that designing demographically targeted interventions could militate against the substitution effect. For example, stakeholders should better target market segments seeking short, frequent trips. As younger, higher-income cohorts travel more often and are more likely to substitute internationally, short-stay regional products (weekend city breaks, events tourism, adventure micro-trips) may be particularly appealing to this group. These segments are also natural targets for regional loyalty schemes, resident fare discounts, group travel products and partnerships with employers or financial institutions, supported by digital marketing that emphasises convenience and value.

Finally, pronounced nationality differences indicate the need for country-specific strategies. In larger markets such as Jamaica, where substitution is more pronounced, national tourism organisations could work with regional partners to integrate intra-Caribbean legs into popular international itineraries. Smaller islands may focus more on strengthening short-haul intra-regional networks and niche offerings.

These recommendations extend beyond the Caribbean. Other groupings of small states or closely linked economies – such as Pacific Islands, Indian Ocean archipelagos and landlocked developing countries in Africa seeking deeper regional integration – face similar tensions between regional and extra-regional travel and can draw direct lessons from the pricing, institutional and segmentation dynamics identified here.

Conclusion

This study examined why Caribbean residents increasingly substitute intra-Caribbean travel with international trips, despite rising incomes and the region's dependence on tourism. Using original survey data, it showed that airfare and TFCs, visa and migration regimes, domestic fiscal policies and perceived cultural/geographic proximity jointly shape the relative attractiveness of regional versus extra-regional destinations, with clear implications for both theory and policy.

The main theoretical contribution is the extension of the classic push–pull framework by including new non-price variables at its core. Rather than treating transport prices, connectivity, visa regimes and domestic tax policy as background constraints, the study demonstrates that they are central in explaining substitution away from regional travel. Airfare and TFCs emerge as first-order drivers, visa–migration–VFR linkages as another powerful channel, DTF-induced shopping travel as a second-order but important mechanism and perceived similarity/proximity as a more modest, modifying factor. A further contribution is to show that demographics (age, income, education, savings, nationality) operate not as standalone push or pull factors, but as moderators that condition how individuals respond to these structural and motivational determinants. In this way, the paper links psychological, economic and institutional perspectives within a single extended push–pull framework.

These theoretical advances underpin the policy implications. Recognising prices, mobility regimes and fiscal structures as core components of travel behaviour implies that efforts to revitalise intra-Caribbean tourism should prioritise TFC and connectivity reforms, more integrated regional mobility arrangements and carefully calibrated DTFs, complemented by destination differentiation and segmented marketing targeted particularly at younger, higher-income and highly educated residents. While the cross-sectional and regional focus of the data limit causal inference, the framework suggests clear directions for future work, including more complex econometric analysis, and comparative studies in other regional blocs. Overall, the study shows that grounding the destination choice within the extended push–pull framework offers stronger explanatory power and provides a clearer basis for policy design in tourism-dependent regions.

Data availability

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Institutional Review Board (IRB) Approval

This study was approved by the Institutional Review Board (IRB) of the author's affiliated university prior to data collection. The protocols used in the research were approved by the

Research Ethics Sub-committee of the University under the approval bearing Reference Number: 21712. Participants were informed about the study's purpose, procedures and their rights, including the option to withdraw at any time. Written consent was obtained from all participants at the start of the survey process, and data confidentiality was rigorously maintained.

Notes

[1.] CARICOM Member States include Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Jamaica, Grenada, Guyana, Haiti, Monserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Suriname, Trinidad and Tobago. Associate Members include Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Curaçao and the Turks and Caicos Islands.

[2.] Guadeloupe, Martinique, and Sint Martin.

[3.] World Bank Data - https://data.worldbank.org/indicator/SP.POP.TOTL

[4.] The ECCU includes the countries of Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines.

[5.] https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?end=locations=B-JM-TT-GD-LC-VC-KN-AG-GY-BS-DM-BZ&start=viewhart

[6.] Due to the large number of nationality groups, only the overall asymptotic *p*-values are reported.

References

Boonekamp, T., Zuidberg, J. and Burghouwt, G. (2018), "Determinants of air travel demand: the role of low-cost carriers, ethnic links and aviation-dependent employment", *Transportation Research Part A: Policy and Practice*, Vol. 112, pp. 18-28.

Calzada, J. and Fageda, X. (2019), "Route expansion in the European air transport market", *Regional Studies*, Vol. 53 No. 8, pp. 1149-1160.

Carballo, R.R., León, C.J. and Carballo, M.M. (2022), "Gender as moderator of the influence of tourists' risk perception on destination image and visit intentions", *Tourism Review*, Vol. 77 No. 3, pp. 913-924.

Caribbean Development Bank (CDB) (2018), *Economic Effects of Reducing Taxes, Fees and Charges (TFCs)*.

Caribbean Tourism Organisation (2024), *Quarterly Statistical Review*, Quarter Ending December 2023.

Chi, N.T.K. and Pham, H. (2024), "The moderating role of eco-destination image in the travel motivations and ecotourism intention nexus", *Journal of Tourism Futures*, Vol. 10 No. 2, pp. 317-333.

Costa, T., Umbelino, J., de Lurdes Calisto, M., Nunes, S. and Afonso, V.A. (2020), "Impacts of tourism and residents' perceptions: a study in the regional tourism area of Lisbon", *European Journal of Tourism, Hospitality and Recreation*, Vol. 10 No. 1, pp. 28-40.

Crompton, J.L. (1979), "Motivations for pleasure vacation", *Annals of Tourism Research*, Vol. 6 No. 4, pp. 408-424.

Crouch, G. and Louviere, J. (2001), "A review of choice modelling research in tourism, hospitality and leisure", in Mazanec, J. A., Brent Richie, G.I.C.J.R., Woodsideeditors, A.G. (Eds), *Consumer Psychology of Tourism, Hospitality and Leisure*, Volume 2, CABI Publishing, pp. 67-86, doi: 10.1079/9780851995359.0067.

Dancausa, G., Hernández, R.D. and Pérez, L.M. (2023), "Motivations and constraints for the ghost tourism: a case study in Spain", *Leisure Sciences*, Vol. 45 No. 2, pp. 156-177.

Dann, G.M. (1981), "Tourist motivation an appraisal", *Annals of Tourism Research*, Vol. 8 No. 2, pp. 187-219.

Dillman, D.A. (2011), *Mail and Internet Surveys: The Tailored Design Method–2007 Update with New Internet, Visual, and Mixed-Mode Guide*, John Wiley and Sons.

Duval, D.T. (2003), "When hosts become guests: Return visits and diasporic identities in a commonwealth Eastern Caribbean community", *Current Issues in Tourism*, Vol. 6 No. 4, pp. 267-308.

Etzo, I. (2016), "The impact of migration on tourism demand: evidence from Japan".

Fulop, G. and Avvisati, F. (2022), "The analytical value of non-probability samples in the context of TALIS: a review of current practices in the use of non-probability samples in comparative, cross-national research", *OECD Education Working Papers*, No. 272, pp. 1-42.

Griffin, T. and Dimanche, F. (2017), "Urban tourism: the growing role of VFR and immigration", *Journal of Tourism Futures*, Vol. 3 No. 2, pp. 103-113.

Heriqbaldi, U., Esquivias, M.A. and Agusti, K.S. (2023), "The role of cultural distance in boosting international tourism arrivals in ASEAN: a gravity model", *Consumer Behavior in Tourism and Hospitality*, Vol. 18 No. 1, pp. 97-109.

InterVISTAS (2007), "Estimating air travel demand elasticities", *Prepared for the International Air Transportation Association (IATA)*.

Iso-Ahola, S.E. (1982), "Toward a social psychological theory of tourism motivation: a rejoinder", *Annals of Tourism Research*, Vol. 9 No. 2, pp. 256-262.

Jeuring, J. and Haartsen, T. (2018), "The challenge of proximity: the (un) attractiveness of near-home tourism destinations", *Proximity and Intraregional Aspects of Tourism*, Routledge, pp. 115-138.

Jönsson, C. and Devonish, D. (2008), "Does nationality, gender, and age affect travel motivation? A case of visitors to the Caribbean island of Barbados", *Journal of Travel and Tourism Marketing*, Vol. 25 Nos 3-4, pp. 398-408.

Kastenholz, E. (2010), "Cultural proximity as a determinant of destination image", *Journal of Vacation Marketing*, Vol. 16 No. 4, pp. 313-322.

Kozak, M. (2002), "Comparative analysis of tourist motivations by nationality and destinations", *Tourism Management*, Vol. 23 No. 3, pp. 221-232.

Le, H.T., Carrel, A.L. and Shah, H. (2022), "Impacts of online shopping on travel demand: a systematic review", *Transport Reviews*, Vol. 42 No. 3, pp. 273-295.

Leiper, N. (2004), *Tourism Management. 3d ed./N*, Pearson Education Australia, Leiper.

Leitão, N.C. and Shahbaz, M. (2012), "Migration and tourism demand", *Theoretical and Applied Economics, General Association of Economists from Romania*, pp. 39-48.

Liro, J. (2021), "Visitors' motivations and behaviours at pilgrimage centres: push and pull perspectives", *Journal of Heritage Tourism*, Vol. 16 No. 1, pp. 79-99.

Loomis, J. (2011), "What's to know about hypothetical bias in stated preference valuation studies?", *Journal of Economic Surveys*, Vol. 25 No. 2, pp. 363-370.

Mejia, M.S.A., Han, L., Kim, M.S. and Laframboise, M.N. (2016), *Flying to Paradise: The Role of Airlift in the Caribbean Tourism Industry*, International Monetary Fund.

Mihai, V.C., Dumitras, D.E., Oroian, C., Chiciudean, G.O., Arion, F.H. and Mureșan, I.C. (2023), "Exploring the factors involved in tourists' decision-making and determinants of length of stay", *Administrative Sciences*, Vol. 13 No. 10, p. 215.

Moreno, A. (2010), "Mediterranean tourism and climate (change): a survey-based study", *Tourism and Hospitality Planning and Development*, Vol. 7 No. 3, pp. 253-265.

Murphy, J.J., Allen, P.G., Stevens, T.H. and Weatherhead, D. (2005), "A meta-analysis of hypothetical bias in stated preference valuation", *Environmental and Resource Economics*, Vol. 30 No. 3, pp. 313-325.

Nurse, K. (2016), "The diasporic economy, trade and the tourism industry in the Caribbean", *Diasporas, Development and Governance*, Springer, pp. 141-152.

Ortaleza, M.S. and Mangali, G.R. (2021), "Attributes of travel destinations that influence tourists' decisions: a systematic review", *International Tourism and Hospitality Journal (ITHJ)*, Vol. 4 No. 8, pp. 1-10.

Özdemir, C. and Yolal, M. (2017), "Cross-cultural tourist behavior: an examination of tourists' behavior in guided tours", *Tourism and Hospitality Research, SAGE Publications Sage UK: London, England*, Vol. 17 No. 3, pp. 314-324.

Pan, B. (2010), "Online travel surveys and response patterns", *Journal of Travel Research*, Vol. 49 No. 1, pp. 121-135.

Park, S.H., Lee, C.-K. and Miller, J.C. (2015), "A comparative study of the motivations, activities, overall satisfaction, and post-trip behaviors of international tourists in Macau: Mainland Chinese, Hongkongese, Taiwanese, and westerners", *Asia Pacific Journal of Tourism Research*, Vol. 20 No. 10, pp. 1174-1193.

Pearce, P. (1988), *The Ulysses Factor: Evaluating Visitors in Tourist Settings*, Springer-Verlag, New York.

Pearce, P.L. and Lee, U.-I. (2005), "Developing the travel career approach to tourist motivation", *Journal of Travel Research*, Vol. 43 No. 3, pp. 226-237.

Pennington-Gray, L. and Lane, C.W. (2002), "Profiling the silent generation: Preferences for travel", *Journal of Hospitality and Leisure Marketing*, Vol. 9 Nos 1-2, pp. 73-95.

Perera, S. and Tan, D. (2019), "In search of the 'right price' for air travel: first steps towards estimating granular price-demand elasticity", *Transportation Research Part A: Policy and Practice*, Vol. 130, pp. 557-569.

Pizam, A. and Sussmann, S. (1995), "Does nationality affect tourist behavior?", *Annals of Tourism Research*, Vol. 22 No. 4, pp. 901-917.

Rajé, F. (2016), "Aviation and ethnicity: an under-investigated area", *Mobilities: New Perspectives on Transport and Society*, Routledge, pp. 321-329.

Ram, J., Reeves, D., James, R., Frederick, R., Ram, J. and Wiltshire, J. (2018), *Air Transport Competitiveness and Connectivity*, Michael, Barbados.

Reilly, B. and Tekleselassie, T.G. (2018), "The role of United States visa waiver program on cross-border travel", *Applied Economics Letters*, Vol. 25 No. 1, pp. 61-65, doi: 10.1080/13504851.2017.1293782.

Rijnks, R.H. and Strijker, D. (2013), "Spatial effects on the image and identity of a rural area", *Journal of Environmental Psychology*, Vol. 36, pp. 103-111.

Roberts, S., Telesford, J.N. and Barrow, J.V. (2016), "Navigating the Caribbean archipelago: an examination of regional transportation issues", *Archipelago Tourism*, Routledge, pp. 146-162.

Rossello Nadal, J. and Santana Gallego, M. (2022), "Gravity models for tourism demand modeling: empirical review and outlook", *Journal of Economic Surveys*, Vol. 36 No. 5, pp. 1358-1409.

Rossello, J. and Santana-Gallego, M. (2024), "The effect of visa types on international tourism", *Economic Modelling*, Vol. 137, p. 106757.

Ryan, C. (2003), "Recreational tourism", *Demand and Impacts*, Channel View Publications, Vol. 11.

San Martín, H. and Rodríguez del Bosque, I.A. (2008), "Exploring the cognitive–affective nature of destination image and the role of psychological factors in its formation", *Tourism Management*, Vol. 29 No. 2, pp. 263-277, doi: 10.1016/j.tourman.2007.03.012.

Schaurer, I. and Weiß, B. (2020), "Investigating selection bias of online surveys on coronavirus-related behavioral outcomes", *Presented at the Survey Research Methods*, Vol. 14, pp. 103-108.

Soldatenko, D., Zentveld, E. and Morgan, D. (2023), "An examination of tourists' pre-trip motivational model using push–pull theory: Melbourne as a case study", *International Journal of Tourism Cities*, Vol. 9 No. 3, pp. 572-597.

Tešin, A., Pivac, T., Besermenji, S. and Obradović, S. (2022), "Exploring the influence of Instagram on travel destination choice", *The European Journal of Applied Economics*, Vol. 19 No. 1.

Thurstone, L.L. (1927), "A law of comparative judgment", *Psychological Review*, Vol. 34 No. 4, pp. 273-286.

Vidal Rua, S. (2020), "Perceptions of tourism: a study of residents' attitudes towards tourism in the city of Girona", *Journal of Tourism Analysis: Revista de Análisis Turístico*, Vol. 27 No. 2, pp. 165-184.

Wang, S. and Gao, Y. (2021), "A literature review and citation analyses of air travel demand studies published between 2010 and 2020", *Journal of Air Transport Management*, Vol. 97, p. 102135.

Weigert, M., Bauer, A., Gernert, J., Karl, M., Nalmpatian, A., Kuechenhoff, H. and Schmude, J. (2022), "Semiparametric APC analysis of destination choice patterns: using generalized additive models to quantify the impact of age, period, and cohort on travel distances", *Tourism Economics*, Vol. 28 No. 5, pp. 1377-1400.

Williams, E.H. and Bunkley-Williams, L. (2021), "What and where is the Caribbean? A modern definition", *The Florida Geographer*, Vol. 52 No. 1, pp. 3-28.

Willis, K.G. (2014), "The use of stated preference methods to value cultural heritage", *Handbook of the Economics of Art and Culture*, Elsevier, pp. 145-181, Vol. 2.

World Tourism Organization (2024), Tourism Visa Openness Report 2023, UNWTO.

Yuan, S. and McDonald, C. (1990), "Motivational determinates of international pleasure time", *Journal of Travel Research*, Vol. 29 No. 1, pp. 42-44.

Yudhistira, M.H., Sofiyandi, Y., Indriyani, W. and Pratama, A.P. (2021), "Heterogeneous effects of visa exemption policy on international tourist arrivals: evidence from Indonesia", *Tourism Economics*, Vol. 27 No. 4, pp. 703-720.

Zentveld, E. (2023), "VFR travel: Opportunities, trends, and issues", *Routledge Handbook of Trends and Issues in Global Tourism Supply and Demand*, Routledge, pp. 433-442.

Zentveld, E., Labas, A., Edwards, S. and Morrison, A.M. (2022), "Now is the time: VFR travel desperately seeking respect", *International Journal of Tourism Research*, Vol. 24 No. 3, pp. 385-399.

Zou, L. and Curtis, T. (2025), "The determinants of air travel demand to the Bahamas and its seasonality comparison with cruise travel", *Journal of Air Transport Management*, Vol. 125, p. 102782.

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