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## **Family Vacations with Children: A Cross-Cultural Approach to Loyalty for Sustainable Tourism**

**Abstract.** *Considering the rapid shifts in family behavior, sustainability is an important step forward for tourist destinations. The purpose of this study is to explore the cultural variances among the families' perceptions of destination sustainability, and identify the relevant factors that influence competitiveness, and destination loyalty. Data were collected online using a questionnaire completed by 446 parents who visited 129 destinations with their children. Using PLS-SEM multigroup analysis the findings reveal significant differences in destination attractiveness, supporting facilities, and destination perceived image among British, French, German, and Romanian groups, implying that these factors should drive sustainability strategies for family-oriented destinations. The new conceptual research model and findings have theoretical and practical implications for all stakeholders interested in tailoring marketing strategies for families with children to align sustainable vacations with families' cultural backgrounds.*

**Keywords:** *perceived destination sustainability, family behaviour, competitiveness, PLS-SEM multigroup analysis, loyalty.*

**JEL Classification:** C38, M31, Q01, Z13.

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## 1. Introduction

Customer loyalty is essential for tourism destinations, especially among families with children, where travel choices often reflect inherited behaviors and preferences. Family tourism represents a crucial segment due to its long-term value and potential to build sustainable consumer habits (Séraphin & Mhanna, 2020).

Atmosphere also plays a pivotal role in enhancing family experiences and encouraging repeat visits. As highlighted in the case of Club Med, a positive, tailored atmosphere fosters memorable experiences and loyalty. For families, especially those with young children, the right atmosphere is not just a comfort factor—it supports emotional connection and learning, contributing to more sustainable tourism behaviors.

Nature-based tourism has gained momentum, particularly after COVID-19, with rural destinations offering wellbeing, justice, and opportunities for meaningful engagement (Guzman et al., 2021). Destinations are increasingly using their natural assets and sustainability branding to attract families, but this also raises challenges. While trying to boost visitation, destinations must preserve the unique experiences that define them, highlighting the conflict between overtourism and sustainability (Séraphin et al., 2018).

Children are central to the future of tourism. Yet, studies show that research involving children as active participants remains limited, despite their strong interest in both natural and built destinations (Buzlu et al., 2024). Vacations are powerful learning moments that can shape sustainable behaviors, but the industry still lacks robust tools to measure socially responsible tourism behavior, especially in family contexts.

This study examines sustainable family vacations as key contexts for educating future generations. Nature-based experiences and edutainment activities, where entertainment supports learning, can empower children as sustainability thinkers. A cross-cultural approach involving Romania, France, the United Kingdom, and Germany ensures that findings are relevant for diverse destinations and policy contexts.

Although sustainable tourism is gaining attention, limited research explores how eco-friendly family experiences contribute to destination competitiveness and loyalty through perceived sustainability. This is significant, as family travelers not only boost local economy but also influence future demand for sustainable destinations.

Accordingly, the research addresses three key questions: *RQ1: What are the key predictors influencing perceived destination sustainability for parents visiting eco-*

*friendly destinations with their children for educational and legacy purposes? RQ2: How do these predictors differ across parents from France, Germany, Romania, and the United Kingdom? RQ3: How do the identified predictors, influencing perceived destination sustainability, impact destination competitiveness and, ultimately, destination loyalty?*

To answer these questions and address the identified gap, the study has three main objectives: first, to identify the key constructs shaping perceived destination sustainability among families visiting eco-friendly destinations; second, to examine cultural differences in parental perceptions across France, Germany, Romania, and the United Kingdom; and third, to investigate how perceived sustainability impacts competitiveness and loyalty using PLS-SEM multi-group analysis. This research introduces a new conceptual model, grounded in the well-established Stimulus-Organism-Response (S-O-R) framework (Mehrabian & Russell, 1974), in which perceived destination sustainability acts as a mediator, linking core tourism components to destination competitiveness and loyalty, with a strong emphasis on edutainment-driven family experiences.

## **2. Literature Review and Hypotheses Formulation**

To provide a coherent theoretical foundation for the proposed model, this study draws on the S-O-R framework (Mehrabian & Russell, 1974), which describes how external stimuli (S) trigger internal cognitive and affective states in individuals (O), which then shape their behavioral responses (R). In the context of family tourism, the destination-related attributes that parents encounter operate as stimuli, namely destination attractiveness, supporting facilities, destination perceived image, destination distinctiveness, cooptation and innovative technology, conflicting outcomes, destination management, and tourist behaviour. These stimuli (S) are processed internally and translated into evaluative perceptions, captured here by perceived destination sustainability and destination competitiveness, which form the organism (O) component. The behavioural response (R) is reflected in destination loyalty. Organizing the eleven constructs along these three stages links the components adopted from the Ritchie and Crouch (2010) model with the literature on education and sustainable tourism and clarifies the rationale behind the hypothesized relationships.

### **2.1 Drivers of Perceived Destination Sustainability for Families with Children**

Sustainable education describes instruction and learning that gives people the values, information, and abilities necessary to handle the environmental, social, and economic issues associated with sustainable tourism (Sterling, 2021). An individual's sentiments, ideas, and opinions regarding a destination's perceived capacity to deliver enjoyable experiences in connection to his or her specific vacation needs are reflected in the destination's attractiveness. The attractiveness or "pull" of a destination can impact travel decisions for family sustainable holidays. One of the

most important attributes that significantly contribute to the attractiveness of a destination are natural and cultural features that draw families with children to a specific destination. Additionally, vacations combining nature and cultural experiences drive a preference for sustainable destinations.

Children demand enjoyable and socially engaged experiences when visiting tourist destinations and tend to remember sensory activities and leisure experiences better. However, previous research suggests that parents prioritise educational outcomes and social identity creation when travelling. Moreover, that parents prefer cultural and historical destinations. Furthermore, children can participate in optional learning and knowledge development activities through tourism. Since parents understand the educational benefits of travel, there is a strong correlation between family travel and children's benefits from tourism. Moreover, by modelling and encouraging sustainable nature-based activities, parents can help children develop a strong connection to nature (Edwards & Larson, 2020). It is believed that this relationship arises from values being passed down through generations. Thus, considering parents' perceptions, we develop the first research hypothesis:

*(H1) Destination attractiveness has a significant and positive effect on perceived destination sustainability.*

Supporting facilities tailored towards family tourism are critical in moulding parents' perceptions of a destination's sustainability. Eco-friendly infrastructure improves families' perceptions of destination sustainability by enhancing public health and lowering pollution hazards. Staff behaviours such as patience, alertness, and friendliness have a substantial impact on family tourists' overall experience, crucial for ensuring a sustainable tourism environment.

Families prefer destinations that provide opportunities for children to learn sustainable behaviours through nature-based relaxation and social connections. Moreover, integrating new technologies and educational outdoor activities for children improves the perception of sustainability in tourism. Child-centered practices that encourage social interaction and responsible consumption contribute to increased environmental understanding and conservation attitudes (Uesugi, 2023). These measures help to ensure long-term environmental sustainability while also supporting local economic and environmental goals. Therefore, testing parents' perceptions we present the following hypothesis:

*(H2) Supporting facilities have a significant and positive effect on perceived destination sustainability.*

Destination image encompasses people's beliefs, thoughts, and impressions about a specific place. Travellers' impressions of a destination might be highly subjective, based on their previous experiences. Moreover, they can have quite varied antecedents for the same destination, and those antecedents depend on their own beliefs and emotions, making the perceptions of tourists extremely subjective. Families' perceptions of a destination's sustainability are greatly influenced by its image. Adventure, sustainability education, and pro-environmental initiatives are examples of attributes that add value to a destination by demonstrating a dedication to eco-friendly tourism, which is in line with family values. Also, destinations that

offer sustainable consumption practices and high-quality education programs are generally perceived by parents as being more conducive to long-term sustainability. Based on these considerations, we propose the third hypothesis of this research:

*(H3) Destination perceived image has a significant and positive effect on perceived destination sustainability.*

Destination distinctiveness is described as a tourism destination's unique qualities or attributes that distinguish it from others. It is not just about giving what tourists want, but also about bringing something unique to that destination or superior to others. This could contain distinct cultural, natural, or experiential characteristics, providing the place an identity that distinguishes it in a crowded market.

Parents' perceptions of sustainability are improved by eco-friendly lodging and destinations with no obvious trash since these attributes encourage environmental responsibility. As a result, a distinctive and sustainable environment is created, drawing visitors who appreciate long-term ecological preservation (Gomes & Lopes, 2023). Consequently, we present the following hypothesis:

*(H4) Destination distinctiveness has a significant and positive effect on perceived destination sustainability.*

Coopetition is defined as the simultaneous collaboration and competitiveness of competitors. Cranmer et al. (2023) report that local business stakeholders see AR technology as a means of enhancing the local economy, bringing in new capital, and driving up sales in on-site businesses by connecting products with tourist experiences while on vacation. It is essential that parents promote early technology use. Some parents minimise its significance or don't think early adoption is advantageous, while others support independence and tech skills.

When choosing sustainable options for vacation destinations, lodging, modes of transportation, and local customs, parents travelling with children perceive technology as a useful tool. By appealing to a variety of senses, including touch, posture, sight, smell, and sound, mobile augmented reality (MAR) systems provide children flexible methods to explore the environment and accelerate their learning. Decisions on cultural heritage preservation and protection would be influenced by the improved understanding and appreciation that MAR technology would provide tourists. Furthermore, by enhancing visitors' knowledge, sense of self, and quality of life as well as by fortifying their relationships to the local communities, augmented reality (AR) interactive learning experiences would advance social welfare. Therefore, we considered it appropriate to address the fifth hypothesis:

*(H5) Coopetition and innovative technology have a significant and positive effect on perceived destination sustainability.*

Tourists can perceive the negative effects of overtourism, such as overcrowding and less enjoyable experiences, which can influence their future vacation plans. Thus, overtourism can reduce a destination's perceived sustainability by putting strain on infrastructure, resources, and local communities. This has an impact not just on the local environment, but also on residents' ability to retain their standard of living and cultural identity. Therefore, to ensure the long-term viability of family

tourism destinations, it is critical to discover solutions to balance tourism expansion with community well-being. Accordingly, in order to determine whether parents who travel with children express concerns about how overtourism could impact their perceptions of the sustainability of family-friendly destinations, the following hypothesis is proposed:

*(H6) Conflicting outcomes have a significant and negative effect on perceived destination sustainability.*

By practicing pro-sustainable travel behaviours and promoting the welfare of local communities, parents travelling with children contribute to sustainable tourist destinations (Gomes & Lopes, 2023). Children play significant roles as thinkers and change agents in tourist destinations, influencing planning and development (Suryawijaya, 2023). Destination Marketing Organizations (DMOs) can design sustainable strategies tailored to young tourists by actively involving children in the process. DMOs face challenges in destination visibility, particularly in attracting travelers with children. Effective destination management is fundamental for success and competitiveness, influencing tourists' decisions and the sustainability of the ecosystem. Following the above, we present the following hypothesis:

*(H7) Destination management has a significant and positive effect on perceived destination sustainability.*

Tourists' pro-environmental behavior is vital for sustainable tourism development, requiring a willingness to minimize negative environmental impacts. Family-oriented accommodations promote good conduct and environmental respect among parents and children (Suryawijaya, 2023). Many accommodations offer family-friendly activities and kids' clubs, fostering environmental awareness. Moreover, family tourism enhances parental well-being through memorable experiences and children's skill development. Therefore, the eighth hypothesis is proposed to examine parents' perceptions:

*(H8) Tourist behaviour has a significant and positive effect on perceived destination sustainability.*

## **2.2 Destination Competitiveness as a Mediator between Perceived Destination Sustainability and Destination Loyalty**

Responsible tourism emphasizes the appreciation of host culture and environmental mindfulness. A destination is considered competitive if it can enhance tourism expenditures, draw more tourists while offering them memorable and satisfying experiences, and do so profitably. Additionally, it should be able to preserve the destination's natural capital for future generations and improve the well-being of its residents. Thus, balancing tourist and local interests enhances destination competitiveness.

Parents recognize that tourist destinations provide stimulating environments for children's social development, making them ideal for sustainability education. Prioritizing children's well-being acknowledges their role in sustaining the tourism sector (Suryawijaya, 2023). Moreover, encouraging children to become active

change agents through community support promotes sustainable tourism (S raphin, 2022). Furthermore, parents believe that destinations that support sustainability, particularly those that incorporate child-focused educational activities and promote environmentally conscious behaviour, have a substantial competitive advantage. These views stem from the idea that encouraging children to consume responsibly while on vacation fosters family bonds with the destination. Based on these considerations, the ninth hypothesis of this research is proposed:

*(H9) Perceived destination sustainability has a significant and positive effect on destination competitiveness.*

Resort mini clubs provide a substantial competitive advantage for destinations by increasing family loyalty through engaging edutainment activities that combine fun and sustainability education. These activities empower children by providing pleasant emotional experiences that establish long-lasting memories and improve the possibility of future visits. By including sustainability-focused activities, mini-clubs meet the modern demand for responsible tourism while also strengthening the bond between families and the destination, increasing the accommodation's appeal to environmentally concerned families. Finally, the structured and meaningful activities provided by mini clubs foster stronger family links to the destination, improving the entire experience and maintaining long-term loyalty to a certain accommodation, and destination. Consequently, to investigate parents' perceptions who travel with children, the tenth hypothesis is advanced:

*(H10) Destination competitiveness has a significant and positive effect on destination loyalty.*

### 3. Methodology

This study investigates whether parents from Romania, Germany, France, and the United Kingdom differ in their expectations when visiting eco-friendly destinations with their children for educational and legacy purposes. Using partial least squares structural equation modeling with multi-group analysis (PLS-SEM MGA), the study examines cross-cultural variations in how core tourism factors influence perceived destination sustainability (PDS), which in turn predict destination competitiveness (DC) and destination loyalty (DL). Based on the Ritchie and Crouch (2010) model, the analysis focuses on the following latent constructs (Figure 1): destination attractiveness (DA), supporting facilities (SF), destination perceived image (DPI), destination distinctiveness (DD), coopetition and innovative technology (CIT), conflicting outcomes (CO), destination management (DM), tourist behavior (TB), perceived destination sustainability (PDS), destination competitiveness (DC), and destination loyalty (DL). In line with the S-O-R logic, the eight destination attributes (DA, SF, DPI, DD, CIT, CO, DM, and TB) act as stimuli (S), perceived destination sustainability and destination competitiveness represent the organism (O), and destination loyalty constitutes the behavioural response (R).

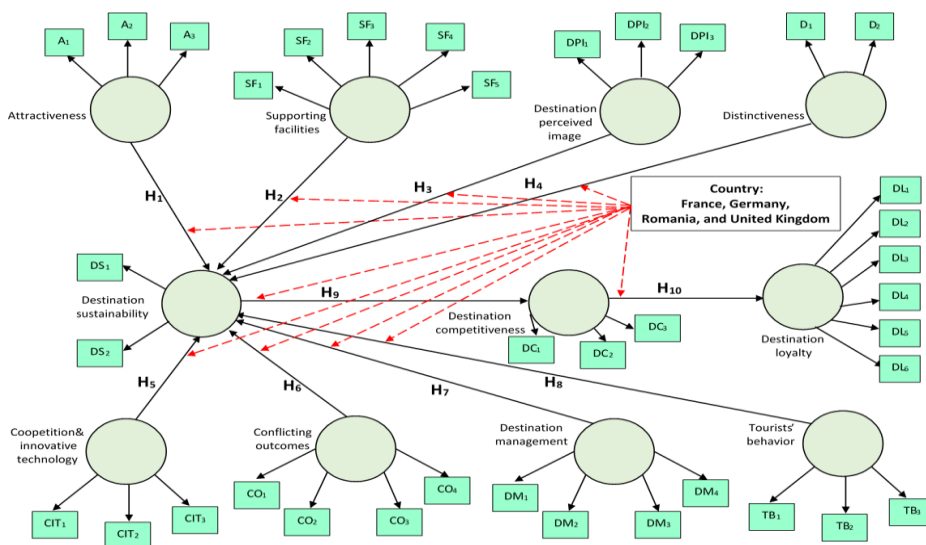
### ***3.1 PLS-SEM Multigroup Analysis***

To test differences across national groups, PLS-MGA was employed, a technique well-suited for comparing structural paths across multiple cultural subgroups. This approach allows for testing the moderating role of nationality by examining model interactions across the four countries. All constructs in the model are specified as reflective and are measured using 2 to 6 items each. Thus, DA was captured through parents' preferences for nature-based, culture-based, or mixed experiences that educate children on sustainability. SF included perceptions of staff friendliness, patience, and family-focused services, as well as the importance of experiential learning in accommodations. DPI was assessed through attributes such as adventure, sustainability education, and support for pro-environmental behaviour. DD focused on cleanliness and environmentally friendly lodging. CIT addressed the role of mobile apps, real-time educational content, and strategic alliances among local businesses. CO captured concerns over overtourism, quality of life, authenticity, and destination choice. DM involved strategic alliances, environmental monitoring, and maximizing family tourism's socio-economic impact. TB referred to the impact of children's clubs, mobile applications, and outdoor experiences on family engagement. PDS included items on children's education, responsible consumption, and tech-based sustainability. DC and DL were measured through perceptions of family loyalty across generations, child-centered mini-clubs, and pro-environmental branding.

All eleven constructs are conceptualized and specified as reflective. This decision follows the conceptual guidelines proposed by Jarvis et al. (2003). Each construct represents a latent perception held by parents, and the direction of causality runs from this perception to its indicators. Parents who hold a favorable perception of a destination attribute tend to respond consistently across the corresponding items. Therefore, the items are manifestations of the underlying perception rather than its defining components. Although constructs, such as destination competitiveness, destination management, supporting facilities, coopetition and innovative technology, and perceived destination sustainability, cover several facets, the items were not designed to form the construct by combining distinct causal dimensions. They are interchangeable expressions of the same underlying evaluation and are, therefore, expected to covary, which is consistent with the high internal consistency reliability and convergent validity reported in Table 1. Dropping a single item would narrow the empirical representation of a construct but would not alter its conceptual meaning. The items were also adapted from established reflective scales in the destination and tourism literature, which further supports the reflective specification.

Validity and reliability of the model were confirmed through standard PLS-SEM procedures, and partial measurement invariance was assessed using the

MICOM procedure (Henseler et al., 2016), confirming that cross-group comparisons are meaningful.



**Figure 1. Conceptual research model**

*Source:* Authors' own creation.

### 3.2 Sample and Data Collection

Data were collected from parents traveling with children under twelve years old through an online questionnaire, distributed via social media in four languages (Romanian, English, French, and German), using a reverse translation method for accuracy. After running a pilot survey with 35 parents, the final survey was administered between September 2023 and January 2024, comprising 446 valid responses: 131 from Romania, and 105 from the UK, France, and Germany. Sample sizes were determined based on power analysis and exceeded the minimum thresholds for detecting structural relationships.

The questionnaire comprised five sections: filter questions, measurement of PDS antecedents (DA, SF, DPI, DD, CIT, CO, DM, TB), mediator and outcome variables (DC and DL), family travel patterns, and demographics. A total of 50 items were used, 38 of which were measured using a 5-point Likert scale.

Respondents were mostly between 36 and 45 years old (58.7%), and the majority were women (70.9%). Most held a bachelor's or master's degree (67.2%) and worked in technical, sales, or trade-related occupations (51.8%), with 29.1% in managerial position. The sample was balanced across countries, with the Romanian group slightly larger. Regarding children's ages, most parents traveled with kids aged 3–6 (43.3%) or 7–12 (35.7%). Over half of the families had two children (52.2%), and 55.6% had a monthly household income above 4000 euros. Beach and

sea destinations were the most preferred (46.3%), followed by mountain (25.9%) and rural areas (21.1%). Most families had visited the same destination two to four times, and popular travel destinations included Spain, Greece, France, Italy, and Romania.

#### 4. Results

Respondents were grouped by nationality (UK, France, Germany, Romania). Using SmartPLS software, reflective measurement models were evaluated for reliability, internal consistency, and validity. Items with loadings below 0.70 were removed. All constructs met accepted thresholds for Cronbach's alpha, composite reliability ( $>0.70$ ), and convergent validity ( $AVE > 0.50$ ) as shown in Table 1. Moreover, no multicollinearity issues were detected ( $VIF < 3.00$ ) according to the values highlighted in Table 2. To assess discriminant validity, the Heterotrait-Monotrait ratio (HTMT) was used, with thresholds set at 0.85 for conceptually distinct constructs and 0.90 for closely related ones (Henseler et al., 2015). For the complete model, all HTMT values were below 0.85, indicating satisfactory discriminant validity. Across national groups, most HTMT values were below 0.85, with only a few inter-construct correlations approaching the upper bound. Specifically, British respondents showed marginally elevated correlations between tourist behavior (TB) and perceived destination sustainability (PDS) ( $HTMT = 0.905$ ), and between destination management (DM) and PDS ( $HTMT = 0.668$ ), though these values remained within acceptable limits considering conceptual proximity (Franke & Sarstedt, 2019). For French, German, and Romanian groups, the highest HTMT values were observed between coopetition and innovative technology (CIT) and PDS, ranging from 0.674 to 0.897, still within the acceptable limit for related constructs. Overall, no critical violations of discriminant validity were detected, supporting the robustness of the measurement model across all groups.

The MICOM procedure was employed to test configural, compositional, and full measurement invariance across national groups. Configural and compositional invariance were confirmed for all constructs across all group comparisons, with compositional correlations ( $c$ ) consistently above 0.95 and within the 95% confidence intervals, satisfying the preconditions for partial measurement invariance (Henseler et al., 2016). However, full measurement invariance was not established, as several constructs exhibited significant differences in mean values or variances across groups—most notably for destination loyalty (DL), tourist behavior (TB), and destination management (DM) in comparisons involving the British and Romanian groups. Partial measurement invariance was sufficient to proceed with PLS-MGA and interpret group-specific structural differences reliably (Hair et al., 2019).

PLS-MGA with bootstrapping revealed significant differences across the national groups in how antecedents influence perceived destination sustainability. Variations were observed particularly for destination attractiveness, supporting facilities, perceived image, distinctiveness, and conflicting outcomes. These cultural

differences shaped each group's interpretation of what contributes to sustainability (Table 3).

Using 5000 bootstrapped samples, SmartPLS software tested the structural paths across the full and group models. Most hypotheses were supported, with p-values being less than 0.05. Results confirmed the model's explanatory power regarding how perceived sustainability predicts competitiveness and loyalty (Table 4).

**Table 1. Assessment of internal consistency and convergent validity within the evaluated model**

| Variable | Cronbach's alpha |      |      |      |            | Composite reliability (rho_c) |      |      |      |            | Average variance extracted (AVE) |      |      |      |            |
|----------|------------------|------|------|------|------------|-------------------------------|------|------|------|------------|----------------------------------|------|------|------|------------|
|          | Br.              | Fr.  | Ger. | Ro.  | Full model | Br.                           | Fr.  | Ger. | Ro.  | Full model | Br.                              | Fr.  | Ger. | Ro.  | Full model |
| DA       | 0,71             | 0,57 | 0,81 | 0,88 | 0,76       | 0,83                          | 0,78 | 0,89 | 0,93 | 0,86       | 0,63                             | 0,55 | 0,73 | 0,81 | 0,68       |
| SF       | 0,79             | 0,84 | 0,84 | 0,79 | 0,83       | 0,85                          | 0,88 | 0,88 | 0,85 | 0,88       | 0,53                             | 0,60 | 0,61 | 0,53 | 0,59       |
| DPI      | 0,69             | 0,66 | 0,70 | 0,71 | 0,69       | 0,83                          | 0,81 | 0,83 | 0,83 | 0,83       | 0,62                             | 0,60 | 0,62 | 0,62 | 0,61       |
| DD       | 0,57             | 0,47 | 0,46 | 0,70 | 0,58       | 0,82                          | 0,77 | 0,78 | 0,87 | 0,82       | 0,70                             | 0,63 | 0,64 | 0,77 | 0,70       |
| CIT      | 0,72             | 0,67 | 0,71 | 0,81 | 0,74       | 0,84                          | 0,82 | 0,84 | 0,88 | 0,85       | 0,65                             | 0,60 | 0,64 | 0,72 | 0,66       |
| CO       | 0,81             | 0,92 | 0,84 | 0,76 | 0,83       | 0,88                          | 0,94 | 0,87 | 0,82 | 0,88       | 0,65                             | 0,80 | 0,62 | 0,54 | 0,65       |
| DM       | 0,78             | 0,87 | 0,84 | 0,84 | 0,83       | 0,86                          | 0,91 | 0,89 | 0,89 | 0,89       | 0,60                             | 0,71 | 0,68 | 0,68 | 0,67       |
| TB       | 0,61             | 0,62 | 0,61 | 0,78 | 0,70       | 0,78                          | 0,79 | 0,79 | 0,87 | 0,83       | 0,55                             | 0,56 | 0,56 | 0,7  | 0,62       |
| PDS      | 0,79             | 0,55 | 0,53 | 0,78 | 0,69       | 0,90                          | 0,81 | 0,81 | 0,90 | 0,86       | 0,82                             | 0,69 | 0,68 | 0,82 | 0,76       |
| DC       | 0,75             | 0,76 | 0,82 | 0,89 | 0,81       | 0,85                          | 0,86 | 0,89 | 0,93 | 0,89       | 0,67                             | 0,67 | 0,73 | 0,82 | 0,73       |
| DL       | 0,82             | 0,85 | 0,85 | 0,92 | 0,87       | 0,87                          | 0,89 | 0,89 | 0,93 | 0,90       | 0,54                             | 0,57 | 0,57 | 0,71 | 0,60       |

Source: Authors' processing.

**Table 2. Assessment of collinearity statistics within the inner model**

| Relationship | Variance inflation factor (VIF) |        |        |          |          |
|--------------|---------------------------------|--------|--------|----------|----------|
|              | British                         | French | German | Romanian | Complete |
| DA → PDS     | 1.66                            | 1.739  | 2.121  | 1.547    | 1.74     |
| CO → PDS     | 1.383                           | 1.22   | 1.382  | 1.289    | 1.23     |
| CIT → PDS    | 1.731                           | 1.709  | 1.917  | 1.563    | 1.644    |
| DPI → PDS    | 1.578                           | 1.669  | 2.04   | 2.374    | 1.83     |
| DC → DL      | 1                               | 1      | 1      | 1        | 1        |
| DM → PDS     | 1.746                           | 1.69   | 1.932  | 1.956    | 1.793    |
| PDS → DC     | 1                               | 1      | 1      | 1        | 1        |
| DD → PDS     | 1.416                           | 1.335  | 1.354  | 1.845    | 1.45     |
| SF → PDS     | 1.632                           | 1.72   | 2.138  | 1.983    | 1.821    |
| TB → PDS     | 1.567                           | 1.491  | 1.189  | 1.323    | 1.303    |

Source: Authors' processing.

**Table 3. Multigroup analysis bootstrapping results**

| Variable  | Path coefficients |        |        |        |        |        |          |        | Pairwise Comparison Invariance |             |            |             |            |             |
|-----------|-------------------|--------|--------|--------|--------|--------|----------|--------|--------------------------------|-------------|------------|-------------|------------|-------------|
|           | British           |        | French |        | German |        | Romanian |        | Br. vs Fr.                     | Br. vs Ger. | Br. vs Ro. | Fr. vs Ger. | Fr. vs Ro. | Ger. vs Ro. |
|           | O.                | P-val. | O.     | P-val. | O.     | P-val. | O.       | P-val. |                                |             |            |             |            |             |
| DA → PDS  | -0,00             | 0,48   | 0,16   | 0,04   | 0,24   | 0,00   | -0,02    | 0,35   | No                             | No          | Yes        | Yes         | No         | No          |
| SF → PDS  | 0,17              | 0,08   | -0,10  | 0,12   | 0,07   | 0,18   | 0,15     | 0,03   | Yes                            | Yes         | No         | Yes         | No         | No          |
| DPI → PDS | -0,11             | 0,16   | -0,11  | 0,10   | -0,18  | 0,02   | 0,06     | 0,25   | Yes                            | No          | Yes        | No          | Yes        | No          |
| DD → PDS  | 0,05              | 0,26   | 0,08   | 0,15   | -0,00  | 0,45   | 0,14     | 0,03   | Yes                            | Yes         | No         | Yes         | No         | No          |
| CIT → PDS | -0,02             | 0,38   | 0,28   | 0,00   | 0,36   | 0,00   | 0,17     | 0,01   | No                             | No          | No         | Yes         | Yes        | Yes         |
| CO → PDS  | 0,17              | 0,00   | 0,03   | 0,35   | -0,06  | 0,19   | 0,11     | 0,02   | No                             | No          | Yes        | Yes         | No         | No          |
| DM → PDS  | 0,22              | 0,00   | 0,25   | 0,00   | 0,36   | 0,00   | 0,26     | 0,00   | Yes                            | Yes         | Yes        | Yes         | Yes        | Yes         |
| TB → PDS  | 0,54              | 0,00   | 0,37   | 0,00   | 0,18   | 0,01   | 0,23     | 0,00   | Yes                            | Yes         | Yes        | Yes         | Yes        | Yes         |
| PDS → DC  | 0,49              | 0,00   | 0,54   | 0,00   | 0,59   | 0,00   | 0,76     | 0,00   | Yes                            | Yes         | Yes        | Yes         | Yes        | Yes         |
| DC → DL   | 0,64              | 0,00   | 0,68   | 0,00   | 0,56   | 0,00   | 0,74     | 0,00   | Yes                            | Yes         | Yes        | Yes         | Yes        | Yes         |

Source: Authors' processing.

**Table 4. Values associated with the asymptotic significance  $p$  and  $t$ -test for the structural model hypotheses**

| Groups/<br>Complete | Hypothesis<br>description | Original<br>sample<br>O | Sample<br>mean<br>M | Standard<br>deviation<br>STDEV | $t$ statistics<br>O/<br>STDEV | $p$<br>va-<br>lues | Decision  |
|---------------------|---------------------------|-------------------------|---------------------|--------------------------------|-------------------------------|--------------------|-----------|
| British             | DA $\rightarrow$ PDS      | -0,00                   | -0,00               | 0,09                           | 0,04                          | 0,48               | Refuted   |
|                     | SF $\rightarrow$ PDS      | 0,17                    | 0,19                | 0,12                           | 1,42                          | 0,08               | Refuted   |
|                     | DPI $\rightarrow$ PDS     | -0,11                   | -0,08               | 0,11                           | 0,97                          | 0,16               | Refuted   |
|                     | DD $\rightarrow$ PDS      | 0,05                    | 0,06                | 0,08                           | 0,65                          | 0,26               | Refuted   |
|                     | CIT $\rightarrow$ PDS     | -0,02                   | -0,01               | 0,08                           | 0,24                          | 0,38               | Refuted   |
|                     | CO $\rightarrow$ PDS      | 0,17                    | 0,17                | 0,07                           | 2,37                          | 0,00               | Validated |
|                     | DM $\rightarrow$ PDS      | 0,22                    | 0,22                | 0,09                           | 2,44                          | 0,00               | Validated |
|                     | TB $\rightarrow$ PDS      | 0,54                    | 0,49                | 0,15                           | 3,59                          | 0,00               | Validated |
|                     | PDS $\rightarrow$ DC      | 0,49                    | 0,51                | 0,13                           | 3,74                          | 0,00               | Validated |
| French              | DC $\rightarrow$ DL       | 0,64                    | 0,65                | 0,08                           | 7,38                          | 0,00               | Validated |
|                     | DA $\rightarrow$ PDS      | 0,16                    | 0,15                | 0,09                           | 1,74                          | 0,04               | Validated |
|                     | SF $\rightarrow$ PDS      | -0,10                   | -0,09               | 0,09                           | 1,16                          | 0,12               | Refuted   |
|                     | DPI $\rightarrow$ PDS     | -0,11                   | -0,08               | 0,08                           | 1,28                          | 0,10               | Refuted   |
|                     | DD $\rightarrow$ PDS      | 0,08                    | 0,08                | 0,079                          | 1,03                          | 0,15               | Refuted   |
|                     | CIT $\rightarrow$ PDS     | 0,28                    | 0,28                | 0,09                           | 2,94                          | 0,00               | Validated |
|                     | CO $\rightarrow$ PDS      | 0,03                    | 0,03                | 0,07                           | 0,38                          | 0,35               | Refuted   |
|                     | DM $\rightarrow$ PDS      | 0,25                    | 0,25                | 0,10                           | 2,59                          | 0,00               | Validated |
|                     | TB $\rightarrow$ PDS      | 0,37                    | 0,36                | 0,09                           | 4,15                          | 0,00               | Validated |
| German              | PDS $\rightarrow$ DC      | 0,54                    | 0,55                | 0,07                           | 6,97                          | 0,00               | Validated |
|                     | DC $\rightarrow$ DL       | 0,68                    | 0,69                | 0,05                           | 13,15                         | 0,00               | Validated |
|                     | DA $\rightarrow$ PDS      | 0,24                    | 0,23                | 0,08                           | 2,80                          | 0,00               | Validated |
|                     | SF $\rightarrow$ PDS      | 0,07                    | 0,08                | 0,08                           | 0,91                          | 0,18               | Refuted   |
|                     | DPI $\rightarrow$ PDS     | -0,18                   | -0,16               | 0,09                           | 1,93                          | 0,02               | Validated |
|                     | DD $\rightarrow$ PDS      | -0,00                   | 0,00                | 0,07                           | 0,13                          | 0,45               | Refuted   |
|                     | CIT $\rightarrow$ PDS     | 0,36                    | 0,34                | 0,09                           | 3,81                          | 0,00               | Validated |
|                     | CO $\rightarrow$ PDS      | -0,06                   | 0,06                | 0,07                           | 0,87                          | 0,19               | Refuted   |
|                     | DM $\rightarrow$ PDS      | 0,36                    | 0,36                | 0,08                           | 4,30                          | 0,00               | Validated |
| Romanian            | TB $\rightarrow$ PDS      | 0,18                    | 0,19                | 0,08                           | 2,10                          | 0,01               | Validated |
|                     | PDS $\rightarrow$ DC      | 0,59                    | 0,60                | 0,07                           | 8,07                          | 0,00               | Validated |
|                     | DC $\rightarrow$ DL       | 0,56                    | 0,57                | 0,07                           | 7,55                          | 0,00               | Validated |
|                     | DA $\rightarrow$ PDS      | -0,02                   | -0,02               | 0,07                           | 0,32                          | 0,35               | Refuted   |
|                     | SF $\rightarrow$ PDS      | 0,15                    | 0,15                | 0,08                           | 1,77                          | 0,03               | Validated |
|                     | DPI $\rightarrow$ PDS     | 0,06                    | 0,05                | 0,09                           | 0,68                          | 0,25               | Refuted   |
|                     | DD $\rightarrow$ PDS      | 0,14                    | 0,14                | 0,07                           | 1,83                          | 0,03               | Validated |
|                     | CIT $\rightarrow$ PDS     | 0,17                    | 0,16                | 0,07                           | 2,31                          | 0,01               | Validated |
|                     | CO $\rightarrow$ PDS      | 0,11                    | 0,11                | 0,06                           | 1,92                          | 0,02               | Validated |
| Complete            | DM $\rightarrow$ PDS      | 0,26                    | 0,26                | 0,08                           | 3,11                          | 0,00               | Validated |
|                     | TB $\rightarrow$ PDS      | 0,23                    | 0,23                | 0,07                           | 3,20                          | 0,00               | Validated |
|                     | PDS $\rightarrow$ DC      | 0,76                    | 0,75                | 0,05                           | 13,16                         | 0,00               | Validated |
|                     | DC $\rightarrow$ DL       | 0,74                    | 0,74                | 0,06                           | 11,69                         | 0,00               | Validated |
|                     | DA $\rightarrow$ PDS      | 0,07                    | 0,07                | 0,04                           | 1,57                          | 0,05               | Refuted   |
|                     | SF $\rightarrow$ PDS      | 0,08                    | 0,08                | 0,04                           | 1,84                          | 0,03               | Validated |
|                     | DPI $\rightarrow$ PDS     | -0,03                   | -0,02               | 0,05                           | 0,60                          | 0,27               | Refuted   |
|                     | DD $\rightarrow$ PDS      | 0,09                    | 0,09                | 0,04                           | 2,21                          | 0,01               | Validated |
|                     | CIT $\rightarrow$ PDS     | 0,19                    | 0,18                | 0,04                           | 4,21                          | 0,00               | Validated |
|                     | CO $\rightarrow$ PDS      | 0,06                    | 0,06                | 0,03                           | 1,77                          | 0,03               | Validated |
|                     | DM $\rightarrow$ PDS      | 0,29                    | 0,29                | 0,04                           | 6,02                          | 0,00               | Validated |
|                     | TB $\rightarrow$ PDS      | 0,29                    | 0,29                | 0,05                           | 5,65                          | 0,00               | Validated |
|                     | PDS $\rightarrow$ DC      | 0,62                    | 0,63                | 0,04                           | 12,78                         | 0,00               | Validated |
|                     | DC $\rightarrow$ DL       | 0,66                    | 0,66                | 0,03                           | 18,20                         | 0,00               | Validated |

Source: Authors' processing.

## 5. Discussion

This study highlights how cultural context shapes families' perceptions of sustainability in tourism. While previous research often links attractiveness to positive destination outcomes (Fernandes, 2023), this was not supported in our study.

Hypothesis 1 (H1) was largely rejected, suggesting that attractiveness alone does not influence sustainability according to parents' perceptions.

Supporting facilities (H2) showed national variation, particularly being relevant for Romanian parents. As Prima (2016) suggests, facilities tailored to family needs, when embedded in a sustainable framework, can improve accessibility and health while benefiting local communities.

The perceived image of a destination (H3) influenced sustainability perceptions primarily for German respondents. As Atasoy & Eren (2023) point out, inconsistencies between perceived and projected images can affect trust and reduce engagement with sustainable initiatives. This discrepancy calls for more targeted destination branding efforts.

Hypothesis 4 (H4) was supported only by Romanian participants. Obando Lugo et al. (2010) argued that developing rare and valuable resources is critical for achieving competitive advantage, and this may hold more weight in cultures that emphasize heritage or tradition.

In contrast, Hypothesis 5 (H5) received widespread support across all groups. The relevance of technology and inter-stakeholder collaboration in enhancing sustainability aligns with current trends in smart destination design (Pasquinelli & Trunfio, 2023).

For conflicting outcomes (H6), results varied, indicating that the perception of overtourism and its sustainability risks is culturally filtered (McKercher & Prideaux, 2020). While some parents view crowding as a threat, others see it as a sign of popularity, not degradation.

Destination management (H7) and tourist behavior (H8) were both strongly supported, reinforcing previous work by Gomes & Lopes (2023), who emphasize the importance of proactive governance and visitor responsibility in sustainable tourism.

The strongest and most consistent results were found for H9 and H10. Perceived sustainability significantly boosted both competitiveness and loyalty across all groups. These findings align with Van Vugt & Hart (2004), who argue that individuals, especially families, form group identities around shared environmental values. This identity strengthens loyalty and encourages behavioral continuity. As Scheepers & Ellemers (2019) suggest, when tourists perceive destinations as aligned with their social group norms, they are more likely to return and become loyal. Moreover, Bernaki & Marso (2023) explained that understanding cultural differences helps destination managers tailor offerings to meet diverse expectations, enhancing competitiveness, service quality and experiential offerings. This understanding influences the positioning and branding aspects, included in one of the valuable models of destination competitiveness ensuring that the destination's image resonates with the social identities of diverse parent groups. Therefore,

tourism destinations must adapt sustainability communication to cultural contexts, focusing on child-centered activities and educational experiences. By doing so, they not only increase family loyalty but also contribute to a broader social shift toward sustainable tourism behavior.

## **6. Conclusions**

To the best of authors' knowledge, no prior study has employed a PLS-SEM multigroup analysis with an emphasis on the needs of families visiting eco-friendly destinations for legacy and educational purposes. This paper takes a cross-cultural approach to the families' perceptions of the relationship between sustainability, competitiveness, and loyalty in the case of potential eco destinations to narrow this research gap. A distinctive characteristic of the research is that it discloses notable variations in national groups' perspectives on perceived destination sustainability. The findings, which reveal differences in how the British, French, German, and Romanian groups perceive destination attractiveness, point to cultural differences in how appealing destinations are interpreted. Unlike other recent studies on family tourism, our approach demonstrates how social identity plays a significant role in influencing sustainable travel behaviours, particularly for families with children.

This study adds various fresh perspectives to theory and practice. To our knowledge, no prior study has utilized a PLS-MGA of more than three ethnic groups concerning family vacations with children. The results, which emphasize the necessity for customized marketing tactics for a range of nationalities to match sustainability practices with visitors' cultural settings, also contribute to the body of research that studies the family cultural variants of the drivers of destination sustainability. Third, the study creates a new conceptual research model and integrates perceived destination sustainability as a dynamic process. Beyond integrating these streams, the study organizes the drivers of destination sustainability, competitiveness, and loyalty within the S-O-R paradigm, offering a coherent theoretical structure for family tourism research.

### **6.1 Limitations and Future Research**

One of the first limitations of this study is that the data was not collected using the most accurate approaches for comprehensive statistical surveys and sampling. Second, the results are based on a modest number of responses, with a gender imbalance, addressing mostly mothers' responses. Third, no prior data is available to compare any changes in the respondents' perspectives with, as the study examines the variances in families' perceptions from the four countries for the first time. The fourth is related to the context of children because the study only looked at parents' responses, despite past research indicating that parents and their children under the age of twelve behave similarly.

The results of this study will be completed by a more thorough examination of the invariance between parents and children for destination sustainability and

competitiveness as a mediator to loyalty. Therefore, to generalize the results, a more thorough future study is required to complement the cross-cultural results. Comparative studies across various markets and eco destinations would be appreciated, considering the limited number of cross-cultural studies on families' sustainable vacations. Longitudinal studies should be conducted as well, as family perceptions in all four countries under analysis can fluctuate with time.

Another important direction for future research is to explore in more detail the cultural nuances that influence loyalty to tourist destinations. In this sense, combining quantitative data with a qualitative component, such as interviews or case studies, could bring a deeper understanding of how cultural factors affect families' tourism perceptions and behaviours. This mixed approach could complement the current results and provide valuable information for the development of personalized marketing strategies adapted to diverse cultural groups.

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