

Empirical Insights into Co-Creation, Satisfaction, and Willingness to Pay in Sustainable Tourism

Paulo Rita

NOVA Information Management School (NOVA IMS), Universidade NOVA de Lisboa, Portugal

Maria Teresa Borges Tiago

University of the Azores, Portugal

Nuno Sousa

NOVA Information Management School (NOVA IMS), Universidade NOVA de Lisboa, Portugal

Received: 13 March 2024. **Revision received:** 29 July 2024. **Accepted:** 22 August 2024

Abstract

The significance of this study lies in its examination of how co-creation impacts tourists' willingness to pay for tourism offerings, providing crucial insights for enhancing the tourist experience and promoting sustainable tourism practices essential for the industry's long-term viability. This research investigates the effect of co-creation engagement on tourists' financial commitments to tourism products or services, aiming to understand better how co-creation enhances the tourist experience. An online survey was conducted in October 2023, targeting tourists who visited São Miguel's Island in the Azores in recent years ($n=220$). The survey explored seven key constructs: involvement, customer co-creation, satisfaction, environmental concerns, support for sustainable tourism development, and willingness to pay. The results underscore the positive impact of consumer co-creation on satisfaction, suggesting that investment in co-creative activities can substantially enhance tourists' experiences. The study provides valuable insights for tourism stakeholders, indicating that fostering co-creative activities can significantly boost tourist satisfaction and willingness to pay. Additionally, integrating sustainability principles into tourism services offers a competitive advantage, while targeted marketing strategies based on visitor demographics can maximize financial returns. This research contributes to existing literature by providing empirical evidence on the connections between co-creation, satisfaction, environmental concerns, and willingness to pay in tourism. The findings have practical implications for improving service quality, promoting sustainability, and optimizing marketing strategies in the tourism industry, benefiting both academia and practitioners.

Key Words: Co-creation, Willingness to Pay, Tourism, Involvement, Satisfaction, Loyalty

JEL Classification: L83; M31

Reference: Rita, P., Borges Tiago, M. T., & Sousa, N. (2024). Empirical Insights into Co-Creation, Satisfaction, and Willingness to Pay in Sustainable Tourism. *Journal of Tourism and Services*, 15(29), 133–152. <https://doi.org/10.29036/jots.v15i29.804>

1. Introduction

When people travel, their sensory experiences are heightened as they engage with new environments, offering a unique opportunity for tourism businesses to co-create unforgettable experiences that could transform the industry. This multisensory stimulation is anticipated to attract tourists through varied contexts and settings (Oliveira et al., 2019). Consequently, tourism firms can design more engaging, personalized, and memorable experiences (Hosany et al., 2022), enhancing tourists' sense of co-ownership and deepening their appreciation of travel dynamics (Campos et al., 2018). By involving tourists and service providers in co-creating these experiences, firms can exceed

expectations, craft appealing offerings, and inspire repeat visits (Jurado-Rivas & Sánchez-Rivero, 2022). Exploring how co-creation influences tourists' willingness to pay is particularly relevant for Portugal, where tourism significantly impacts the economy (Eusébio et al., 2022).

Co-creation, which involves customers actively participating in product or service creation, has gained prominence in tourism to boost customer satisfaction and loyalty (Mohammadi et al., 2021). Despite its potential benefits, the impact of co-creation on tourists' willingness to pay has not been extensively studied (Tu, Neuhofer & Viglia, 2018; Rachão et al., 2023). Research has mainly focused on satisfaction and loyalty, with only a few addressing willingness to pay, yielding mixed results (Marvi et al., 2023; Can et al., 2023). Further research is essential to elucidate the relationship between co-creation and tourists' willingness to pay. Thus, this study explores how co-creation affects tourists' stated willingness to pay for tourism products, using the Portuguese Autonomous Regions – the Azores as a field of study. The co-creation of tourism experiences in the Azores is uniquely defined by its integration of natural resources, cultural richness, sustainability practices, adventure opportunities, and personalized offerings combined to create a distinct and immersive experience.

The findings will be valuable for tourism businesses seeking to enhance customer satisfaction and loyalty through co-creation. Understanding these dynamics can help tailor operations to different demographics, improving overall tourist experiences and promoting sustainable tourism practices. This approach could benefit the growing number of bed and breakfasts in the Azores, enhancing their co-creation efforts.

2. Literature review

Destinations can leverage a co-creation approach to develop unique and engaging tourist experiences by actively involving visitors in creating and delivering tourism goods and services. This approach, which has gained substantial attention in recent tourism literature, encompasses collaborative planning, co-design, and co-production (Huynh et al., 2023; Hosany et al., 2022). It lets tourists personalize itineraries, provide interactive feedback, and foster meaningful connections with local communities through cultural exchange programs (Phi & Dredge, 2021). Continuous feedback collection and adaptive service modifications enhance tourist engagement while integrating social media, gamification, and augmented/virtual reality technologies further enrich the experience (Onofrei et al., 2022). Tourists also play a pivotal role in content co-creation, contributing to destination storytelling and marketing, which results in a more immersive and personalized travel experience. Research indicates that co-creation can significantly increase the perceived value of tourism-related products and services, thereby enhancing tourists' willingness to pay (Tao et al., 2022).

The effectiveness of co-creation in tourism is influenced by several key factors (Arica et al., 2023). Firstly, the level of involvement in the co-creation process affects outcomes; higher involvement can lead to better alignment with personal preferences and greater satisfaction, though it may also impose a perceived burden if the process is overly complex or effort-intensive (Franke et al., 2009; Hoyer et al., 2010; Schnurr, 2017). Additionally, the degree of co-creation plays a critical role, as it involves tourists in adapting the functional attributes of products or services to meet their specific preferences, thereby enhancing perceived value and satisfaction (Yang, Yang & Saffi, 2023; Schnurr, 2017). Thirdly, satisfaction with the co-creation process significantly impacts tourists' willingness to pay for co-created products, as positive experiences during co-creation increase perceived value (Franke & Schreier, 2010; Grisseemann & Stokburgersauer, 2012). Finally, personal, behavioral, and contextual factors, including individual characteristics such as age, gender, and income, consumer environmental behavior, also play pivotal roles in shaping the success and impact of co-creation initiatives (Yang & Luo, 2016). Understanding these factors is essential for designing effective co-creation strategies that enhance tourist experiences and increase their willingness to pay.

2.1 Co-Creation involvement

The level of co-creation involvement in tourism exhibits considerable variation. Cao et al. (2023) demonstrated that high-degree pre-trip involvement significantly enhances satisfaction with experience co-creation, subsequently increasing destination loyalty. Similarly, Liu et al. (2021) underscored the critical role of functional, social, and ethical interactions between tour guides and tourists in brand co-creation, positively influencing brand advocacy for tour guides and travel agencies. Nevertheless, tourist willingness to engage in co-creation can fluctuate over time and is subject to various influences. Zhang (2023) identified a curvilinear relationship between the extent of tourist co-creation and tourism marketing outcomes, noting that excessive co-creation could have adverse effects. Carvalho et al. (2023) explored food tour experiences and highlighted key dimensions such as aesthetics/sensory engagement, emotional impact, cognitive stimulation, relational aspects, and personalization as vital elements of co-creative tourism. Additionally, Nawangsih (2022) examined value co-creation in tourism villages, identifying numerous factors and challenges inherent in developing a value co-creation-based tourist village. Lu et al. (2015) indicate that perceived authenticity and tourists' involvement in local activities directly contribute to the formation of the destination image of the historic district. This observation aligns with our first research hypothesis:

H1: Higher tourist involvement in the co-creation process positively influences the extent of customer co-creation in the tourism experience.

2.2 Tourism Co-Creation

Tourism co-creation involves tourists and other stakeholders in creating and developing tourism experiences and products (Tregua et al., 2020). It involves collaboration and interaction between tourists, service providers, destination management organizations, and other relevant parties (Zhang, 2023). Co-creation in tourism can take various forms, such as tourists participating in food tours and providing feedback on their experiences (Borges-Tiago et al., 2021). Customers with higher knowledge, self-efficacy, and motivation are likelier to participate in the co-creation experience (Im & Qu, 2017). In addition, the customer is a resource integrator during the co-creation experience. Managing the co-creation process effectively is essential to avoid potential negative impacts and ensure that the value offered is not destroyed (Järvi et al., 2018). Some studies have found that tourists who co-create their travel experiences tend to have higher satisfaction levels and perceived value, which can translate into a higher willingness to pay (Lai et al., 2018). The willingness to pay (WTP) is a critical concept in economics and marketing, as it helps businesses understand how much consumers value different offerings and how pricing strategies can be adjusted to meet market demand and maximize revenue and is acknowledged as a reflection of the satisfaction level tourists achieved in a particular experience (Kang et al. 2019). Furthermore, the impact of co-creation involvement on visitors' perceptions of value and pleasure may be used to explain the relationship between stated willingness to pay (SWTP) and co-creation. Participation in co-creation could raise the perceived value of tourism goods and services, which could, therefore, raise customer happiness and, eventually, prompt willingness to pay (Marvi et al., 2023). Therefore, it is argued that co-creation may enhance satisfaction and increase willingness to pay. Thus, it is proposed the following hypotheses:

H2: The degree of co-creation experienced by tourists positively influences their overall satisfaction with their travel experiences.

H3: Higher levels of co-creation increase tourists' stated willingness to pay.

2.3 Island tourism and hospitality

One of the critical areas of research in island tourism is the economic impact of tourism on island communities. Many studies have found that island tourism can generate significant economic benefits

for local communities, including increased employment and income opportunities (Nunkoo & So, 2016). The effects of tourism on island culture and heritage are a further subject of study in island tourism. Tourism may play a significant role in protecting and promoting the cultural legacy of island communities, which frequently have a rich history intricately linked to their natural surroundings. Furthermore, some researchers worry that tourism can encourage the commodification and commercialization of island culture, which might deteriorate customs and values (Hahury et al., 2023).

Besides the investments in creating various hotels, resorts, and other housing options to accommodate the growing number of visitors, it is crucial to have programs and promotions to protect their natural splendor. Accordingly, travelers' propensity to actively engage in co-creation activities positively correlates with how unique they believe a trip destination to be. It is argued that travelers are more likely to be inspired to co-create their travel experiences by helping to shape and personalize their itineraries when they believe that a place will provide unique and extraordinary experiences (Scarpi & Raggiotto, 2023). Wahnschafft and Wolter (2023) refer to a slowly growing consumer attention to environmental concerns, including recognizing the need to mitigate local air pollution and climate change through their purchase decisions. Therefore, it is expected that:

H4: Tourists with more environmental concerns will be more open to joining co-creation activities while there than travelers' who do not have environmental concerns.

Islands can emphasize the importance of living in harmony with nature, which will raise the positive perception of tourists. A study supports that the environmentally friendly behavior of volunteer tourists positively affects their support for sustainable tourism development; destinations must develop promotional programs that encourage tourists' environmentally friendly behaviors (Park et al., 2022). This leads to the fifth hypothesis:

H5: Tourists with higher levels of environmental concerns are more likely to express support for sustainable tourism development.

2.4 Willingness to pay for tourism

The concept of WTP in economics refers to the most money a consumer is prepared to spend on a good or service and can be measured by using a variety of methods, including stated preference methods, such as surveys and choice-based experiments, and revealed preference methods such as observing the prices consumers are willing to pay in the market (Braidert et al., 2006). Willingness to pay is frequently a factor when pricing tourism-related goods and services like hotel rooms, flights, and excursions. Tourism businesses can more effectively decide on pricing tactics and focus their marketing campaigns by being more aware of a tourist's willingness to pay (Ivanov & Webster, 2021).

Kang et al. (2019) reported numerous studies that show that personal perceptions and values significantly influence the extent of the benefits experienced by tourism travelers. González et al. (2023) identify the importance of green practices for developing satisfaction and different customer behaviors such as loyalty, word-of-mouth, and willingness to pay more. Hypothesis 6 explores this interaction:

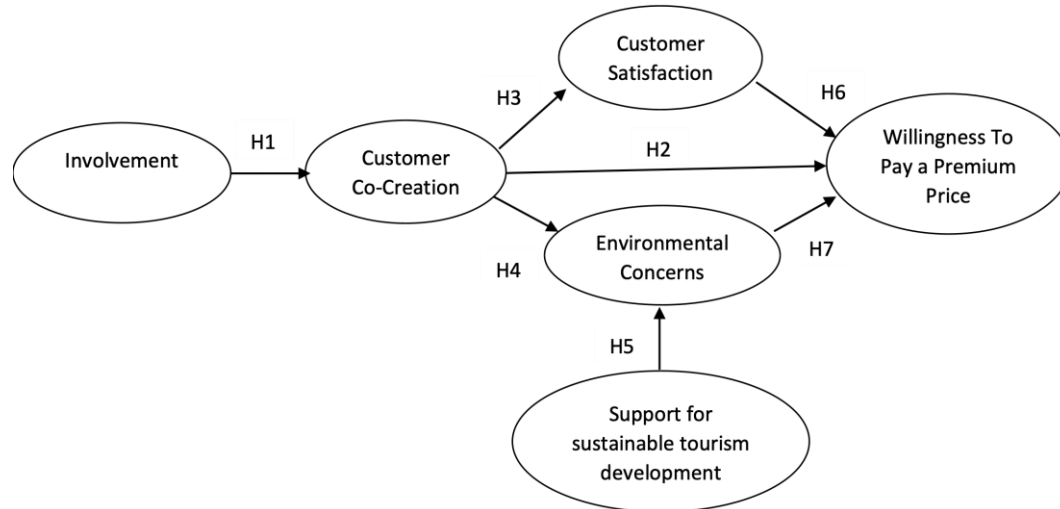
H6: Tourists who give more importance to green practices in their tourism experiences will have different behaviors and develop a greater willingness to pay.

The perceived worth of the service, the tourist's budget, the availability of substitute products, and the general state of the economy can all affect how willing tourists are to spend money on a specific tourism product. Kang et al. (2019) reported that tourists' satisfaction is crucial in shaping their valuation process. Their findings also suggest that promoting the perception of the destination as sustainable encourages tourists' willingness to pay a premium price. Hence, the more tourists appreciate the destination's compliance with the environment-friendly regulation, the higher the willingness to pay more (Can et al., 2023). This leads to the last hypothesis:

H7: Tourists who experience higher satisfaction with their travel experiences are more likely to express a greater willingness to pay a premium for those experiences.

In the conceptual (Figure 1), the dynamics of customer engagement in the tourism sector, focusing on the role of co-creation in enhancing the travel experience, are explored.

Figure 1. **Conceptual Model**



Source: own model

Beginning with customer involvement, the model posits that increased participation is a fundamental precursor to co-creation (H1), influencing customer satisfaction (H3). It also examines the impact of co-creation on environmental concerns (H2), suggesting that engaged customers are more conscious of their environmental footprint, which can further drive support for sustainable tourism development (H4, H5). This support is believed to influence customer satisfaction as well. The model also proposes that customer satisfaction can lead to a greater willingness to pay a price premium for sustainable tourism experiences (H6), indicating a direct economic benefit to service providers. Lastly, it considers whether support for sustainable practices translates into a willingness to pay more for such practices (H7), suggesting a financial incentive for businesses to adopt sustainable methods. This comprehensive model aims to elucidate the interconnectedness of involvement, co-creation, satisfaction, and economic and environmental considerations within the tourism industry.

In this model, visitors' level of involvement in their travels is called "Involvement" and comprises the extent to which visitors participate in the various stages of the co-creation process and the degree to which they interact with the neighborhood and its culture (Lu et al., 2015). "Customer Co-Creation" describes how much visitors participate in co-creating their trips. It covers the various co-creation activities that visitors can participate in, such as making travel plans, giving feedback, and co-designing travel-related goods or services (Im & Qu, 2017). "Customer Co-Creation" describes how much visitors participate in co-creating their trips. It covers the various co-creation activities that visitors can participate in, such as making travel plans, giving feedback, and co-designing travel-related goods or services (Im & Qu, 2017). "Customer Satisfaction" indicates the degree to which visitors are satisfied with their travel experience. It covers their general pleasure with the co-creation process and their contentment with experience elements, like lodging, food, and activities (Marvi et al., 2023). "Customer Satisfaction" indicates the degree to which visitors are satisfied with their travel experience. It covers their general pleasure with the co-creation process and their contentment with experience elements, like lodging, food, and activities (Marvi et al., 2023). "Environmental Concerns" and "Support for sustainable tourism development" allude to natural resources and environmentally friendly tourism methods (Frías-Jamilena et al., 2022). It covers the numerous ecotourism activities available, such as Geo tourism, whale watching, and hiking, as well as sustainable tourism programs that support community growth and environmental

preservation (Park et al., 2022). “Environmental Concerns” and “Support for sustainable tourism development” allude to natural resources and environmentally friendly tourism methods (Frías-Jamilena et al., 2022). It covers the numerous ecotourism activities available, such as Geo tourism, whale watching, and hiking, as well as sustainable tourism programs that support community growth and environmental preservation (Park et al., 2022). “Willingness to Pay” is the sum visitors are prepared to spend on their vacation. Their willingness to pay for various tourism goods or services is included as perceived uniqueness, contentment, and co-creation (Can et al., 2023). “Willingness to Pay” is the sum visitors are prepared to spend on their vacation. Their willingness to pay for various tourism goods or services is included as perceived uniqueness, contentment, and co-creation (Can et al., 2023).

3. Methods

3.1 Research design

The study aims to advance knowledge of how co-creation might improve the tourist experience and boost tourists' willingness to pay for travel-related products. For this study, the Autonomous Region of the Azores was chosen due to the distinct characteristics that allow it to be considered as a live lab in tourism: natural beauties, developing tourism path, emphasis on sustainability, cultural diversity, and remote position. The Azores archipelago consists of nine volcanic islands and is part of Portugal. Its seclusion and unspoiled natural surroundings make it the perfect place to investigate the connection between co-creation and tourists' willingness to pay. The Azores is an increasingly popular destination for nature-based tourism, receiving more than 600,000 visitors annually. Tourists are mainly attracted by the archipelago's landscapes and marine-related activities such as sailing, surfing, whale and dolphin watching, and, more recently, scuba and shark diving (González-Mantilla et al., 2022).

A survey was administered to gather information on visitors' willingness to pay and their level of co-creation involvement in the Azores. The study's target audience was tourists visiting the Azores within the last few years and locals who visited other Azorean Islands, using a convenience sampling technique. The data gathered was treated using quantitative techniques. Descriptive statistics like means and frequencies were used to establish the sample profile and better understand tourists' willingness to pay and the degree of co-creation involvement. The association between tourism spending and co-creation participation is examined using inferential statistics, such as regression analysis. Nonetheless, considering the novelty of the model and the need to assess multiple relationships between non-observed constructs, a structural equation model – SEM-PLS was adopted.

The methodological approach adopted in this research necessitated a robust statistical tool capable of complex relationships and providing reliable predictions, especially given the intricacies of examining the effects of co-creation on tourists' willingness to pay. After careful consideration, SmartPLS 4.0, a software based on Partial Least Squares Structural Equation Modeling (PLS-SEM), was chosen due to its suitability for the study's specific data characteristics and analysis requirements. PLS-SEM has become a more widely used method in marketing research and is used in top-ranked journals (Hair et al., 2012).

3.2 Measurements instruments

Based on the conceptual model and research hypotheses, a survey was developed in English and Portuguese to evaluate the effect of co-creation on tourists' stated willingness to pay, including seven constructs collected from relevant literature. The questionnaire consisted of a set of 26 questions covering four dimensions of analysis: (i) tourist involvement, (ii) tourist co-creation interest and satisfaction, (iii) tourist sustainable behavior, and (iv) willingness to pay (see Table 1). A five-point quantitative scale was used to measure all the items, where 1 was ‘strongly disagree’, and 5 was ‘strongly agree’. The

questionnaire was shared online, using surveycircle.com and social media such as LinkedIn, Facebook, WhatsApp, X, and Instagram, and collected in São Miguel’s main town, Ponta Delgada. Table 1 shows the different constructs and questions underlying the survey. The scales adopted are well-known and valid and, for these reasons, suitable to the present research.

Table 1. Measurement scales

Construct	Adapted Item	Source
Involvement	(INV1) There are a variety of activities for you to participate in in the Azores.	Lu et al. (2015)
	(INV2) The activities you can participate in in the Azores are interesting.	
	(INV3) You can freely participate in various tourist activities in the Azores.	
Customer Co-Creation	(CC1) I am interested in participating in a co-creation experience in the Azores.	Im and Qu (2017)
	(CC2) I intend to discuss the co-creation experience with the server and/or chef.	
	(CC3) I intend to participate actively in this co-creation experience.	
Satisfaction	(SAT1) The co-creation provider in the Azores satisfied me.	Marvi et al. (2023)
	(SAT2) The co-creation provider exceeded my expectations.	
	(SAT3) The co-creation provider pleased me with his/her service offerings.	
	(SAT4) I am satisfied with my co-creation provider experience.	
	(SAT5) My satisfaction with the co-creation provider is close to my ideal expectations.	
Environmental Concerns	(EC1) I am extremely worried about the state of the Azores’ environment and what it will mean for my future.	Frías-Jamilena et al. (2022)
	(EC2) People are severely abusing the environment in the Azores.	
	(EC3) When people interfere with nature, it often produces disastrous consequences.	
	(EC4) The balance of nature is very delicate and easily upset.	
	(EC5) People must live in harmony with nature to survive.	
Support for sustainable tourism development	(SSTD1) I support sustainable tourism development in the Azores.	Park et al. (2022)
	(SSTD2) I support cooperation in sustainable tourism development in the Azores.	
	(SSTD3) I support cultural exchange between residents and tourists participating in recycling programs.	
	(SSTD4) I support environmental education and conservation in the Azores.	
Willingness to Pay	(WTP1) I am willing to pay a higher price for having a holiday in the Azores.	Can et al. (2023)
	(WTP2) I am willing to pay a lot more for a holiday in the Azores.	
	(WTP3) The price of a holiday in the Azores would have to rise substantially before I would choose a different destination.	

Source: own research

4. Results

Before implementation, a panel of ten tourists conducted a preliminary evaluation of the questionnaire. The objective of this pre-testing phase was to identify and mitigate potential errors and evaluate the relevance, clarity, logical flow, and wording of the questions. Since no changes were suggested, the pilot test answers were included in the database. In November 2023, the survey targeted people who visited the Azores above 18 years old, and 304 respondents were achieved with different levels of answers. All incomplete questionnaires were excluded from the analysis, leaving the final sample with 220 valid cases, i.e., complete answers, representing an overall rate of 72%. The minimum sample size required for this study was calculated using G*Power (Faul et al., 2009), which indicated that a sample of at least 82 participants would be necessary to achieve a power of 0.95. The sample was composed of people visiting or recently visiting the Azores. The final sample had 220 individuals – 109 males (49%) and 111 females (51%).

Regarding the maximum education level, 54% of respondents have a bachelor's degree, 27% have a master's degree, and 14% have completed High School or a Professional Degree. The tourist's experience as a traveler was assessed, showing that 51% have less than 7 years of traveling experience, while 49% have more than 7 years of experience. Most participants were national tourists: 30% were from Portugal's mainland and Madeira, and 23% were local travelers with travel experiences between islands. The remaining participants were from other European countries (29%) and the Americas (15%).

4.1 Structural model

To analyze the collected data, this study utilized Structural Equation Modeling Partial Least Squares (SEM-PLS) via SmartPLS 4 software (Ringle et al., 2015). SEM-PLS was chosen due to the complexity of the conceptual framework and the study's prediction-oriented focus (Hair et al., 2019). Reinartz et al. (2009) suggest that a minimum sample size of 100 is sufficient to generate high power for analysis when applying PLS-SEM. Therefore, this study's sample of 220 respondents is more than adequate to produce valid, reliable, and meaningful results. The standardized root mean square residual (SRMR) measures the approximate model fit and reflects the average magnitude of the difference between the observed correlation matrix and the model-implied correlation matrix (see Table 3). The SRMR (0.072) is lower than 0.08, so the model is assumed to have a good fit (Sarstedt et al., 2019). The Cronbach's Alpha values for all constructs in the model exceeded the commonly accepted threshold of 0.7, indicating strong internal consistency (see Table 2).

Table 2. Measurement model

Constructs	Mean	Std. Deviation	Loadings	Cronbach Alpha	CR	AVE
Customer Co-Creation				0.854	0.911	0.774
CC1	4,06	0,91	0.863			
CC2	3,83	0,98	0.877			
CC3	3,92	0,97	0.900			
Environmental Concerns				0.790	0.877	0.704
EC3	4,34	0,74	0.844			
EC4	4,37	0,74	0.868			

EC5	4,54	0,61	0.803			
Involvement				0.869	0.919	0.791
INV1	4,28	0,77	0.895			
INV2	4,37	0,78	0.928			
INV3	4,25	0,84	0.845			
Satisfaction				0.936	0.951	0.797
SAT1	3,86	0,82	0.872			
SAT2	3,79	0,83	0.897			
SAT3	3,86	0,84	0.913			
SAT4	3,81	0,85	0.899			
SAT5	3,84	0,84	0.883			
Support for Sustainable Tourism Development				0.846	0.896	0.684
SSTD1	4,58	0,6	0.838			
SSTD2	4,56	0,63	0.861			
SSTD3	4,49	0,64	0.776			
SSTD4	4,61	0,59	0.832			
Willingness To Pay				0.826	0.896	0.742
WTP1	3,69	1,01	0.827			
WTP2	3,24	1,13	0.911			
WTP3	3,61	1,04	0.845			

Source: own research

Table 2 displays the mean and standard deviation of all variables and the reflective indicator loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) for each latent variable. For indicator reliability, factor loadings must be statistically significant and greater than 0.7. All the items above, except EC1 and EC2, were eliminated due to their low loadings. The AVE values exceed the inter-construct correlations, confirming discriminant validity as per Fornell and Larcker (1981). Additionally, multicollinearity is not indicated, as evidenced by all inner VIF values. In a well-fitting model, structural VIF coefficients should not exceed 4.0 (Sarstedt et al., 2014). In this study, the highest inner VIF is 1.621, observed for CC3. This indicates that while CC has an independent effect on WTP, there is a mild overlap with the influence of other variables.

4.2 Multigroup Analysis for Tourist Experience

Considering the differences in traveling experience among the sample participants, a Multi-Group Analysis (MGA) was conducted to investigate the possible differences in the proposed correlations due to visitors' past experiences. It was also crucial to ascertain whether and to what extent these effects

differed among tourists with varying degrees of experience, that is, between "Less Experienced Tourists" and "More Experienced Tourists." (see Table 3).

Table 3. Differences by Tourists' Experience

	Difference (LET - MET)	1-tailed (LET vs. MET) p-value	2-tailed (LET vs. MET) p-value
CC -> EC	-0.084	0.753	0.494
CC -> SAT	0.215	0.023	0.046
CC -> WTP	0.085	0.315	0.631
EC -> WTP	0.120	0.242	0.484
INV -> CC	-0.054	0.578	0.844
SAT -> WTP	-0.155	0.799	0.401
SSTD -> EC	-0.063	0.739	0.523

Note: Less Experienced Tourists (LET); More Experienced Tourists (MET); Involvement (INV); Customer co-creation (CC); Environmental Concerns (EC); Satisfaction (SAT); Support for Sustainable Tourism Development (SSTD); Willingness to Pay (WTP).

Source: own research

"Less Experienced Tourists" and "More Experienced Tourists" path coefficients were compared using a bootstrap multigroup analysis with 5000 subsamples. Table 3 shows the one-tailed and two-tailed test differences in path coefficients and the corresponding p-values. Overall, the most notable result is the significant difference in the effect of Customer Co-creation on Satisfaction (CC -> SAT) between less and more experienced tourists, with the latter group being more influenced by co-creation activities in terms of their satisfaction. The other paths do not show significant differences between the groups based on the provided p-values, indicating that tourist experience does not significantly alter these relationships. The bootstrapping results of path coefficients inside a PLS-SEM framework are displayed in Table 4, which compares the "More Experienced Tourists" with "Less Experienced Tourists" groups. For testing hypotheses, it offers t-values, p-values, the original path coefficients for each group, their mean values upon bootstrapping, and the standard deviations of these estimations.

Table 4. Bootstrapping results of path coefficients inside a PLS-SEM framework

	Original (LET)	Original (MET)	Mean (LET)	Mean (MET)	STDEV (LET)	STDEV (MET)	t value (LET)	t value (MET)	p-value (LET)	p-value (MET)
CC -> EC	0.064	0.148	0.066	0.148	0.084	0.09	0.758	1.642	0.449	0.101
CC -> SAT	0.723	0.508	0.716	0.512	0.072	0.075	10.01	6.735	0.000	0.000
CC -> WTP	0.308	0.223	0.303	0.232	0.144	0.115	2.144	1.943	0.032	0.052
EC -> WTP	0.085	-0.035	0.072	-0.035	0.100	0.139	0.856	0.251	0.392	0.802
INV -> CC	0.144	0.197	0.132	0.211	0.171	0.118	0.840	1.677	0.401	0.094
SAT -> WTP	0.154	0.308	0.176	0.316	0.158	0.097	0.975	3.182	0.330	0.001

SSTD -> EC	0.595	0.658	0.599	0.651	0.056	0.095	10.609	6.954	0.000	0.000
------------	-------	-------	-------	-------	-------	-------	--------	-------	-------	-------

Note: Less Experienced Tourists (LET); More Experienced Tourists (MET); Involvement (INV); Customer co-creation (CC); Environmental Concerns (EC); Satisfaction (SAT); Support for Sustainable Tourism Development (SSTD); Willingness to Pay (WTP).

Source: own research

In conclusion, the findings imply that some of the correlations in the model are moderated by experience level. Both tourist groups' satisfaction and willingness to pay are significantly impacted by customer co-creation; however, the effect on co-creation activities is more substantial for more seasoned travelers. Meanwhile, experienced and novice tourists consistently report that support for sustainable tourism development has a greater impact on environmental concerns. Tourism operators and marketers may find this information quite valuable when creating focused plans for various tourist segments.

4.3 Multigroup analysis for tourist origin

The outcomes of a Bootstrap Multi-Group Analysis (MGA) comparing the path coefficients between the "Foreigners" and "Portuguese" groups are displayed in Table 5. Together with one-tailed and two-tailed p-values for assessing the significance of these changes, it shows the variations in path coefficients. No path coefficient differences between Portuguese and Foreigners are statistically significant at 0.05 in all the one-tailed and two-tailed tests. The route that leads from environmental concerns to willingness to pay is the most significant.

Table 5. Differences by tourist origin

	Difference (FOR - PORT)	1-tailed (FOR vs PORT) p-value	2-tailed (FOR vs PORT) p-value
CC -> EC	0.042	0.373	0.746
CC -> SAT	0.069	0.255	0.511
CC -> WTP	-0.066	0.644	0.713
EC -> WTP	0.261	0.064	0.128
INV -> CC	-0.045	0.642	0.716
SAT -> WTP	-0.014	0.53	0.939
SSTD -> EC	0.142	0.127	0.254

Note: Foreigners (FOR); Portuguese (PORT); Involvement (INV); Customer co-creation (CC); Environmental Concerns (EC); Satisfaction (SAT); Support for Sustainable Tourism Development (SSTD); Willingness to Pay (WTP).

Source: own research

The bootstrapping findings from a PLS-SEM analysis are shown in Table 6, which shows the path coefficients for the Portuguese and foreign groups separately. It displays the t-values, p-values, and standard deviations (STDEV) of these estimations, the initial path coefficients, and their averages following bootstrapping for each group. When looking at the relationships within the model, Customer Co-Creation (CC) had a significant influence on Environmental Concerns (EC) for the Foreigner group, with a path coefficient of 0.152 and a significant p-value of 0.025, compared to a coefficient of 0.110 and a non-significant p-value of 0.315 for the Portuguese group. With coefficients of 0.647 and 0.578, respectively, and p-values at the 0.000 level, the CC's influence on Satisfaction (SAT) was strong and statistically significant for both groups. This demonstrates the pervasiveness of co-creation's good impact on tourist satisfaction. The relationship between CC and WTP was significant for Portuguese tourists

(coefficient 0.306, p-value 0.003) but not for Foreigners (coefficient 0.240, p-value 0.105), suggesting cultural or contextual differences in how co-creation activities translate into economic value. Support for Sustainable Tourism Development (SSTD) had a strong and significant impact on EC for both groups, with coefficients of 0.669 and 0.527, respectively, and p-values of 0.000, indicating that sustainable tourism initiatives are a crucial driver of environmental awareness among tourists.

Table 6. Bootstrapping results of path coefficients inside a PLS-SEM framework

	Original (FOR)	Original (PORT)	Mean (FOR)	Mean (PORT)	STDEV (FOR)	STDEV (PORT)	t value (FOR)	t value (PORT)	p-value (FOR)	p-value (PORT)
CC -> EC	0.152	0.11	0.161	0.104	0.068	0.109	2.247	1.005	0.025	0.315
CC -> SAT	0.647	0.578	0.653	0.58	0.056	0.085	11.451	6.785	0.000	0.000
CC -> WTP	0.24	0.306	0.251	0.306	0.148	0.102	1.622	3.004	0.105	0.003
EC -> WTP	0.151	-0.111	0.144	-0.11	0.126	0.112	1.195	0.988	0.232	0.323
INV -> CC	0.15	0.194	0.162	0.204	0.119	0.136	1.252	1.428	0.211	0.153
SAT -> WTP	0.173	0.188	0.179	0.197	0.159	0.109	1.092	1.728	0.275	0.084
SSTD -> EC	0.669	0.527	0.661	0.534	0.072	0.101	9.329	5.228	0.000	0.000

Note: Foreigners (FOR); Portuguese (PORT); Involvement (INV); Customer co-creation (CC); Environmental Concerns (EC); Satisfaction (SAT); Support for Sustainable Tourism Development (SSTD); Willingness to Pay (WTP).

Source: own research

In summary, Customer Co-Creation has a statistically significant impact on Foreigners' Environmental Concerns and considerably influences Satisfaction for Portuguese and Foreign tourists. For Portuguese tourists, co-creation has a considerable effect on willingness to pay, but not for foreign visitors. For both groups, support for sustainable tourism development significantly impacts environmental concerns. When comparing Portuguese and Foreign tourists, these results show subtle changes in the linkages between the constructs, offering important information for targeted marketing and policymaking.

4.4 Multigroup analysis for household income

"Comfortable" and "Difficulties or Coping" path coefficients were compared using a bootstrap multigroup analysis with 5000 subsamples. The outcomes of a Bootstrap Multi-Group Analysis (MGA) comparing the path coefficients between the "Comfortable" and "Difficulties or Coping" groups are displayed in Table 7. Together with one-tailed and two-tailed p-values for assessing the significance of these changes, it shows the variations in path coefficients. Support for Sustainable Tourism Development (SSTD) and Environmental Concerns (EC) have a 1-tailed p-value of 0.013, indicating a statistically significant difference in their positive association. This shows that Support for Sustainable Tourism Development has a greater influence on environmental concerns for tourists who are comfortable with their household income. The 2-tailed p-value of 0.042 across Customer Co-Creation (CC) and Satisfaction (SAT) suggests a statistically significant difference in the relationship between these variables. The 2-tailed p-value of 0.027 between Support for Sustainable Tourism Development (SSTD) and Environmental Concerns (EC) suggests a statistically significant difference in the association between these constructs.

Table 7. One-tailed and two-tailed test differences in path coefficients and the corresponding p-values.

	Difference (COMF vs DIF/COP)	1-tailed (COMF vs DIF/COP) p-value	2-tailed (COMF vs DIF/COP) p-value
CC -> EC	-0.043	0.629	0.742
CC -> SAT	-0.219	0.979	0.042
CC -> WTP	0.008	0.477	0.953
EC -> WTP	-0.267	0.915	0.169
INV -> CC	-0.087	0.720	0.560
SAT -> WTP	-0.135	0.803	0.395
SSTD -> EC	0.242	0.013	0.027

Note: Comfortable (COMF); Difficulties or Coping (DIF/COP); Involvement (INV); Customer co-creation (CC); Environmental Concerns (EC); Satisfaction (SAT); Support for Sustainable Tourism Development (SSTD); Willingness to Pay (WTP).

Source: own research

The bootstrapping findings from a PLS-SEM analysis are shown in Table 8, which shows the path coefficients for the tourists who are comfortable about their household income and have difficulties coping. It displays the t-values, p-values, and standard deviations (STDEV) of these estimations, the initial path coefficients, and their averages following bootstrapping for each group. Looking at the connections throughout the model, the influence of Customer Co-creation on Satisfaction was strong and statistically significant for both groups, with a coefficient of 0.504 for tourists who are comfortable about their household income and 0.723 for tourists who have difficulties or coping. This indicates the extensive positive influence of co-creation on tourist satisfaction. Satisfaction intensely and significantly impacts willingness to pay, particularly among struggling or coping visitors. Support for Sustainable Tourism Development strongly and considerably impacts both groups' environmental concerns. The greatest difference is the influence of Involvement on Customer Co-Creation, which is not significant for tourists who are comfortable with their household income, with a p-value of 0.317 and a coefficient of 0.136, but is significant for tourists who are struggling or coping, with a p-value of 0.095 and a coefficient of 0.223.

Table 8. Bootstrapping results of path coefficients inside a PLS-SEM framework.

	Original (COMF)	Original (DIF/COP)	Mean (COMF)	Mean (DIF/COP)	Stdev (COMF)	Stdev (DIF/COP)	t value (COMF)	t value (DIF/COP)	p-value (COMF)	p-value (DIF/COP)
CC -> EC	0.099	0.142	0.103	0.141	0.085	0.099	1.169	1.435	0.243	0.151
CC -> SAT	0.504	0.723	0.510	0.722	0.092	0.061	5.483	11.871	0.000	0.000
CC -> WTP	0.177	0.169	0.192	0.174	0.138	0.109	1.275	1.553	0.202	0.120
EC -> WTP	-0.150	0.117	-0.154	0.111	0.163	0.098	0.924	1.196	0.355	0.232
INV -> CC	0.136	0.223	0.147	0.235	0.136	0.134	1.002	1.668	0.317	0.095
SAT -> WTP	0.264	0.399	0.268	0.405	0.122	0.108	2.173	3.712	0.030	0.000

SSTD -> EC	0.733	0.491	0.724	0.504	0.075	0.070	9.731	7.033	0.000	0.000
------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Note: Comfortable (COMF); Difficulties or Coping (DIF/COP); Involvement (INV); Customer co-creation (CC); Environmental Concerns (EC); Satisfaction (SAT); Support for Sustainable Tourism Development (SSTD); Willingness to Pay (WTP).

Source: own research

The findings emphasized the universally favorable influence of co-creation on satisfaction, the significance of contentment in influencing willingness to pay, and the nuanced role of co-creation engagement based on visitors' financial comfort levels. These findings can guide focused measures to improve the tourist experience and promote sustainable tourism practices.

5. Discussion

The findings about visitors' overall pleasure with their travel experiences being positively influenced by their level of co-creation show substantial statistical significance; this implies a strong association between co-creation events and tourist satisfaction, regardless of demographics. This outcome is aligned with Marvi et al. (2023), who said that “peer consumers might engage in co-creation for other reasons, such as personal satisfaction” (page 9). The results indicate that co-creation significantly enhances tourists' willingness to pay (WTP) for tourism experiences in the Azores. The increased levels of co-creation in tourists' indicated willingness to spend show a strong relationship between co-creation and willingness to pay. Once more, the present findings corroborate the evidence found by Marvi et al. (2023), which leads to the expectation that engaged peer consumers are more likely to pay higher prices and perceive more value.

In contrast to the findings of the González--Viralta et al. (2023) study, the current investigation found a more nuanced association between environmental concerns and willingness to pay. Environmental concerns were shown to play a critical role in tourists' support for sustainable tourism practices, which also affected their satisfaction and WTP across all tourist segments, demonstrating that travelers more concerned about the environment are more inclined to support sustainable tourism projects. These findings are aligned with the ones from Park et al. (2022), confirming that individual characteristics can influence their capabilities to value and adopt green consumer behavior. Considering the findings of Kang et al. (2019), one should expect to find a significant influence of green behavior on willingness to pay more for sustainable tourism experiences. Surprisingly, the present outcome related to the impact of green practices on tourist behaviors and willingness to pay reveals no significance. The present work also makes a unique contribution by detecting the various effects of co-creation on the willingness to pay of Portuguese and foreign tourists, implying that cultural and experiential elements may effectively influence tourist perception and behavior. This outcome, aligned with the evidence of Kang et al. (2019), suggests a deeper analysis of the non-socioeconomic characteristics, such as psychological factors on tourists' co-creation and WTP. This divergence from the expected pattern shows that, given the context of our study in the Azorean Region, other factors or dynamics may impact tourists' willingness to support ecologically responsible actions financially. This disparity emphasized the relevance of contextual elements in understanding the complex interplay between environmental concerns and economic contributions, making a valuable contribution to the continuing discussion over sustainable tourism practices. These results lead to Wahnschafft and Wolter's (2023) study, which found that tourists' willingness to pay more for environmentally friendly services slowly grew from 2019 to 2021, which may reflect a gradual increase in tourist consumer attention to environmental concerns, as evidenced by the results of our present article.

The results support the hypothesis that greater involvement in co-creation activities increases tourists' satisfaction with their travel experiences, thereby enhancing their willingness to pay (H1, H2, H3). Tourists who actively participate in co-creating their travel experiences perceive higher value and

satisfaction, which translates into a higher WTP. More experienced tourists show a stronger positive response to co-creation activities in terms of satisfaction compared to less experienced tourists. This indicates that experienced travelers may better appreciate co-creation's personalized and engaging aspects. Tourists with higher environmental concerns are **more likely** to engage in co-creation activities and support sustainable tourism development (H4, H5). This suggests that eco-conscious tourists value integrating sustainable practices into their travel experiences. Environmental concerns and support for sustainable tourism significantly influence tourists' overall satisfaction and their willingness to pay a premium for sustainable tourism products (H6, H7).

Thus, the findings contribute to the theoretical understanding of co-creation in tourism by extending the co-creation theory and demonstrating the positive impact of co-creation on tourists' willingness to pay, thus extending the existing literature focused primarily on satisfaction and loyalty. Additionally, it establishes a clear link between sustainability and co-creation, highlighting the interplay between environmental concerns and co-creation, suggesting that sustainability considerations are integral to the co-creation process in tourism.

The findings provide valuable managerial insights for tourist operators and policymakers in the Azores and other destinations with similar natural resources. Given the impact of consumer co-creation on satisfaction, tourism firms can engage tourists in co-creative activities. Tourism firms should focus on developing co-creation opportunities to enhance customer engagement and satisfaction. Firms can also increase perceived value and willingness to pay by involving tourists in creating a travel experience. This may include adopting interactive seminars, guided tours, or participatory activities that empower tourists to contribute to their experiences, thus increasing their sense of involvement and enjoyment.

Plus, given the critical role that environmental concerns play in promoting support for sustainable tourism growth, it is recommended that tourism operators incorporate sustainability practices within their core offerings. This could include implementing eco-friendly activities like waste reduction programs, energy-saving measures, and community participation projects. By doing so, tourist businesses contribute to environmental conservation and establish themselves as leaders in sustainable tourism, thereby earning a competitive advantage in the market. Moreover, incorporating sustainable practices into tourism offerings can attract environmentally conscious tourists, enhancing their satisfaction and willingness to support and pay for sustainable tourism. The findings suggest that marketing strategies should be tailored to different tourist segments. Experienced travelers and those with higher environmental concerns respond more positively to co-creation and sustainable tourism initiatives, indicating a need for targeted marketing efforts. Tourism operators may provide individualized experiences that reflect different visitor groups' unique attitudes and expectations. For example, developing bespoke packages, private tours, or thematic activities that cater to the tastes of specific demographics might improve perceived value and boost tourists' willingness to pay for these personalized services.

Despite the insights presented, this study has certain limitations. The study's geographical scope was limited to the Azores, which may limit the findings' generalizability to other regions. Furthermore, because the data is cross-sectional, it cannot examine changes over time. Future research should replicate the study in different cultural and economic circumstances to further validate the model and investigate the generalizability of the findings. Longitudinal research could better understand the constructs' dynamic character across time. Further research into the function of individual variables like age, gender, income level, and psychological factors could provide more specific insights into how these aspects influence the model's interactions.

6. Final Considerations

The study explored the impact of co-creation on tourists' willingness to pay (WTP) for travel experiences in the Azores and the role of environmental concerns in shaping these dynamics. The findings demonstrate that higher levels of co-creation involvement significantly enhance tourists'

satisfaction, positively influencing their WTP. Additionally, tourists with heightened environmental concerns are more inclined to engage in co-creation activities and support sustainable tourism initiatives, further boosting their satisfaction and WTP. The findings underscore the value of integrating co-creation into tourism offerings to enhance customer satisfaction and economic returns. Tourism businesses in the Azores and similar destinations should prioritize developing co-creation opportunities, as involving tourists in creating their travel experiences increases perceived value and willingness to pay. Additionally, incorporating sustainable practices into tourism products can attract environmentally conscious tourists, enhancing their overall satisfaction and support for sustainable tourism. Tailored marketing strategies are essential to reach different tourist segments effectively. Experienced travelers and those with higher environmental concerns are particularly responsive to co-creation and sustainability initiatives, indicating the need for targeted marketing efforts that highlight these aspects.

The study's limitations suggest several avenues for future research. First, expanding the sample to include tourists from diverse geographical locations would enhance the generalizability of the findings. Longitudinal studies are needed to understand the long-term effects of co-creation on tourists' willingness to pay. Additionally, incorporating mixed methods, such as qualitative interviews and focus groups, could provide deeper insights into tourists' motivations and experiences with co-creation. Further research could also explore the economic implications of co-creation for tourism businesses, including cost-benefit analyses of implementing co-creation strategies. Investigating the role of emerging technologies, such as augmented reality and virtual reality, in enhancing co-creation experiences could provide valuable insights into innovative ways to engage tourists.

Overall, this study contributes to understanding how co-creation can enhance tourism experiences and increase tourists' willingness to pay. By fostering greater engagement and satisfaction through co-creation and sustainable practices, tourism businesses can achieve both economic benefits and support for sustainable tourism development. The insights gained from this research offer practical recommendations for tourism operators and policymakers to create more engaging, personalized, and sustainable tourism experiences.

Acknowledgements:

Paulo Rita was supported by national funds through FCT (Fundação para a Ciência e a Tecnologia), under the project - UIDB/04152/2020 - Centro de Investigação em Gestão de Informação (MagIC)/NOVA IMS) (<https://doi.org/10.54499/UIDB/04152/2020>). Teresa Borges Tiago was supported by national funds through FCT (Fundação para a Ciência e a Tecnologia), under the project UIDB/00685/2020 of the Centre of Applied Economics Studies of the Atlantic, School of Business and Economics of the University of the Azores.

References

1. Arica, R., Kudas, B., Cobanoglu, C., Parvez, M. O., Ongsakul, V., & Della Corte, V. (2023). The role of trust in tourists' motivation to participate in co-creation. *Tourism Review*, 78(4), 1182–1202. DOI: 10.1108/TR-08-2021-0399
2. Borges-Tiago, M.T., Arruda, C., Tiago, F., & Rita, P. (2021). Differences *between TripAdvisor and Booking.com in branding co-creation*. *Journal of Business Research*, 123, 380–388. DOI: 10.1016/j.jbusres.2020.09.050
3. Breidert, C., Hahsler, M., & Reutterer, T. (2006). A review of methods for measuring willingness-to-pay A review of methods for measuring. *Innovative Marketing*, 2 (4), 8-32, Retrieved from <https://www.proquest.com/scholarly-journals/review-methods-measuring-willingness-pay/docview/2622617875/se-2>.

4. Campos, A. C., Mendes, J., do Valle, P. O., & Scott, N. (2018). Co-creation of tourist experiences: A literature review *Current Issues in Tourism*, 21(4), 369-400. DOI: 10.1080/13683500.2015.1081158
5. Can, A. S., Ekinici, Y., & Dilek-Fidler, S. (2023). Do Blue Flag promotions influence tourists' willingness to pay a price premium for coastal destinations? *Tourism Management*, 98, 104767. DOI: 10.1016/j.tourman.2023.104767
6. Cao, L., Xie, D., & Qu, Y. (2023). A process perspective on experience co-creation: How pre-trip involvement prompts destination loyalty. *Tourism Management*, 96, 104711. DOI: 10.1016/j.tourman.2022.104711
7. Carvalho, M., Kastenholz, E., Carneiro, M. J., & Souza, L. (2023). Co-creation of food tourism experiences: Tourists' perspectives of a Lisbon food tour. *Tourist Studies*, 23(2), 128–148. DOI: 10.1177/14687976231168941
8. Eusébio, C., Pimentel Alves, J., Rosa, M. J., & Teixeira, L. (2022). Are higher education institutions preparing future tourism professionals for tourism for all? An overview from Portuguese higher education tourism programmes. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 31. DOI: 10.1016/j.jhlste.2022.100395
9. Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. DOI: 10.3758/BRM.41.4.1149
10. Franke, N., & Schreier, M. (2010). Why customers value self-designed products: The Importance of process effort and enjoyment. *Journal of Product Innovation Management*, 27(7), 1020–1031. DOI: 10.1111/j.1540-5885.2010.00768.x
11. Franke, N., Keinz, P., & Steger, C. J. (2009). Testing the value of customization: when do customers really prefer products tailored to their preferences? *Journal of Marketing*, 73(5), 103-121. DOI: 10.1509/jmkg.73.5.103
12. Frías-Jamilena, D. M., Fernández-Ruano, M. L., & Polo-Peña, A. I. (2022). Gamified environmental interpretation as a strategy for improving tourist behavior in support of sustainable tourism: The moderating role of psychological distance. *Tourism Management*, 91, 104519. DOI: 10.1016/j.tourman.2022.104519
13. González-Mantilla, P. G., Gallagher, A. J., León, C. J., & Vianna, G. M. S. (2022). Economic impact and conservation potential of shark-diving tourism in the Azores Islands. *Marine Policy*, 135, 104869. DOI: 10.1016/j.marpol.2021.104869
14. González-Viralta, D., Veas-González, I., Egaña-Bruna, F., Vidal-Silva, C., Delgado-Bello, C., & Pezoa-Fuentes, C. (2023). Positive effects of green practices on the consumers' satisfaction, loyalty, word-of-mouth, and willingness to pay. *Heliyon*, 9(10). DOI: 10.1016/j.heliyon.2023.e20353
15. Grisseman, U. S. & Stokburger-Sauer, N. E. (2012). Customer Co-creation of Travel Services: The Role of Company Support and Customer Satisfaction with the Co-creation Performance. *Tourism Management*, 33(6), 1483-1492.
16. Hahury, H. D., Saptanno, F., Batkunda, L., Louhenapessy, F. H., & Oppier, H. (2023). Tourism development and impacts of local livelihood transition on the Highlands of Mount Nona, Ambon Island. *International Journal of Professional Business Review*, 8(1). DOI: 10.26668/businessreview/2023.v8i1.1255
17. Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. DOI: 10.2753/MTP1069-6679190202
18. Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–433. DOI: 10.1007/s11747-011-0261-6
19. Hosany, S., Sthapit, E., & Björk, P. (2022). Memorable tourism experience: A review and research agenda. *Psychology and Marketing*, 39(8), 1467–1486. DOI: 10.1002/mar.21665

20. Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M., & Singh, S. S. (2010). Consumer cocreation in new product development. *Journal of Service Research*, 13(3), 283-296. DOI: 10.1177/109467051037560
21. Huynh, T. N., Van Nguyen, P., Nguyen, Q. N., & Dinh, P. U. (2023). Technology innovation, technology complexity, and co-creation effects on organizational performance: The role of government influence and co-creation. *Journal of Open Innovation: Technology, Market, and Complexity*, 100150. DOI: 10.1016/j.joitmc.2023.100150
22. Im, J., & Qu, H. (2017). Drivers and resources of customer co-creation: A scenario-based case in the restaurant industry. *International Journal of Hospitality Management*, 64, 31–40. DOI: 10.1016/j.ijhm.2017.03.007
23. Ivanov, S., & Webster, C. (2021). Willingness-to-pay for robot-delivered tourism and hospitality services – an exploratory study. *International Journal of Contemporary Hospitality Management*, 33(11), 3926–3955. DOI: 10.1108/IJCHM-09-2020-1078
24. Järvi, H., Kähkönen, A. K., & Torvinen, H. (2018). When value co-creation fails: Reasons that lead to value co-destruction. *Scandinavian Journal of Management*, 34(1), 63–77. DOI: 10.1016/j.scaman.2018.01.002
25. Jurado-Rivas, C., & Sánchez-Rivero, M. (2022). Investigating Change in the Willingness to Pay for a More Sustainable Tourist Destination in a World Heritage City. *Land*, 11(3). DOI: 10.3390/land11030439
26. Kang, N., Wang, E., & Yu, Y. (2019). Valuing forest park attributes by giving consideration to the tourist satisfaction. *Tourism Economics*, 25(5), 711–733. DOI: 10.1177/1354816618803272
27. Lai, I. K. W., Hitchcock, M., Lu, D., & Liu, Y. (2018). The influence of word of mouth on tourism destination choice: Tourist-resident relationship and safety perception among mainland Chinese Tourists Visiting Macau. *Sustainability*, 10(7). DOI: 10.3390/su10072114
28. Liu, Y., Li, J., & Sheng, S. (2021). Brand co-creation in tourism industry: The role of guide-tourist interaction. *Journal of Hospitality and Tourism Management*, 49, 244–252. DOI: 10.1016/j.jhtm.2021.09.019
29. Lu, L., Chi, C. G., & Liu, Y. (2015). Authenticity, involvement, and image: Evaluating tourist experiences at historic districts. *Tourism Management*, 50, 85–96. DOI: 10.1016/j.tourman.2015.01.026
30. Marvi, R., Foroudi, P., & Fakhreddin, F. (2023). Let Me Engage You: Peer engagement behaviour on peer-to-peer platforms. *International Journal of Hospitality Management*, 115, 103600. DOI: 10.1016/j.ijhm.2023.103600
31. Mohammadi, F., Yazdani, H. R., Jami Pour, M., & Soltani, M. (2021). Co-creation in tourism: a systematic mapping study. *Tourism Review*, 76(2), 305–343. DOI: 10.1108/TR-10-2019-0425
32. Nawangsih, N. (2022). Building tourism with the community: a study of local participation building a tourism village based on value co creation. *Innovation Business Management and Accounting Journal*, 1(3), 72–76. DOI: 10.56070/ibmaj.v1i3.12
33. Nunkoo, R., & So, K. K. F. (2016). Residents' support for tourism: testing alternative structural models. *Journal of Travel Research*, 55(7), 847–861. DOI: 10.1177/0047287515592972
34. Oliveira, C., Brochado, A., Moro, S., & Rita, P. (2019). Consumer Perception of Tourist Experience through Online Reviews: The Islands of the Senses of Cape Verde, 11(6), 696-717. DOI: 10.1108/WHATTT-09-2019-0052
35. Onofrei, G., Filieri, R., & Kennedy, L. (2022). Social media interactions, purchase intention, and behavioural engagement: The mediating role of source and content factors. *Journal of Business Research*, 142, 100-112. DOI: 10.1016/j.jbusres.2021.12.031
36. Park, C. Y., Lee, S. J., Lee, C. K., & Reisinger, Y. (2022). Volunteer tourists' environmentally friendly behavior and support for sustainable tourism development using Value-Belief-Norm theory: Moderating role of altruism. *Journal of Destination Marketing and Management*, 25, 100712. DOI: 10.1016/j.jdmm.2022.100712

37. Phi, G. T., & Dredge, D. (2021). *Collaborative tourism-making: an interdisciplinary review of co-creation and a future research agenda*. In *Critical Issues in Tourism Co-Creation*, 5–20. Routledge. DOI: 10.4324/9781003165835-2
38. Rachão, S., Breda, Z., de Oliveira Fernandes, C., Joukes, V., & Ferreira, C. (2023). Food-and-wine tourists' willingness to pay for co-creation experiences: A generational approach. *Journal of Hospitality and Tourism Management*, 56, 245-252. DOI: 10.1016/j.jhtm.2023.06.004
39. Ringle, C.M., Wende, S. and Becker, J.M. (2015) SmartPLS 3. SmartPLS GmbH, Boenningstedt. <http://www.smartpls.com>
40. Sarstedt, M., Hair, J. F., Cheah, J. H., Becker, J. M., & Ringle, C. M. (2019). How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal*, 27(3), 197–211. DOI: 10.1016/j.ausmj.2019.05.003
41. Sarstedt, M., Ringle, C. M., Henseler, J., & Hair, J. F. (2014). On the Emancipation of PLS-SEM: A Commentary on Rigdon (2012). *Long Range Planning*, 47(3), 154–160. DOI: 10.1016/j.lrp.2014.02.007
42. Scarpi, D., & Raggiotto, F. (2023). A construal level view of contemporary heritage tourism. *Tourism Management*, 94, 104648. DOI: 10.1016/j.tourman.2022.104648
43. Schnurr, B. (2017). How my product works and how it looks: Effects of functional and aesthetic co-creation and the role of product expertise. *Creativity and Innovation Management*, 26(2), 152-159. DOI: 10.1111/caim.12212
44. Tao, K., Ye, J., Xiao, H., & Chen, P. (2022). A Model of Perceived Co-creation Value in Tourism Service Setting: An Application of Structure Equation Modeling. *Frontiers in Psychology*, 13. DOI: 10.3389/fpsyg.2022.808114
45. Tregua, M., D'auria, A., & Costin, H. (2020). #10yearschallenge: how co-creation permeated tourism research. A bibliometric analysis. *European Journal of Tourism Research*, 24, 2409. DOI: 10.54055/ejtr.v24i.411
46. Tu, Y., Neuhofer, B., & Viglia, G. (2018). When co-creation pays: stimulating engagement to increase revenues. *International Journal of Contemporary Hospitality Management*, 30(4), 2093-2111. DOI: 10.1108/IJCHM-09-2016-0494
47. Wahnschafft, R., & Wolter, F. (2023). Assessing tourist willingness to pay for excursions on environmentally benign tourist boats: A case study and trend analysis from Berlin, Germany. *Research in Transportation Business and Management*, 48. DOI: 10.1016/j.rtbm.2022.100826
48. Yang, Y., Yang, Y., & Shafi, M. (2023). Co-creation and Consumers' Willingness to Pay Premium: Effect of Involvement and Satisfaction with Co-creation Process. *Journal of the Knowledge Economy*, 1-23.
49. Yen, C.-H., Tsai, C.-H., & Han, T.-C. (2022). Can tourist value cocreation behavior enhance tour leader love? The role of perceived value. *Journal of Hospitality and Tourism Management*, 53, 133–142. DOI: 10.1016/j.jhtm.2022.10.001
50. Zhang, Y. (2023). Tourist co-creation and tourism marketing outcomes: An inverted U-shaped relationship. *Journal of Business Research*, 166. DOI: 10.1016/j.jbusres.2023.114105

Brief description of Authors:

Paulo Rita

ORCID ID: <https://orcid.org/0000-0001-6050-9958>

Affiliation: NOVA Information Management School (NOVA IMS), Universidade NOVA de Lisboa, Campus de Campolide, Lisboa, Portugal, www.novaims.unl.pt

Email: prita@novaims.unl.pt

Paulo Rita, PhD in Marketing (Cardiff University, UK), is a Full Professor of Marketing at NOVA Information Management School (NOVA IMS), Universidade NOVA de Lisboa, and director of the

Master's in Data-driven Marketing. His research interests cover Digital Marketing/Social Media, Consumer Behavior, and Tourism Marketing. He has published in journals such as Annals of Tourism Research and Tourism Management. He is the coordinating editor at the International Journal of Hospitality Management and associate editor at the European Journal of Management and Business Economics.

Maria Teresa Borges Tiago

ORCID: <https://orcid.org/0000-0002-4419-0673>

Affiliation: School of Business and Economics, University of the Azores, CEEAplA, Rua da Mae de Deus, Portugal, www.uac.pt.

Email: maria.tp.tiago@uac.pt

Maria Teresa Borges Tiago, PhD in Marketing, is a Senior Associate Professor at the University of Azores, an invited professor at NOVA Information Management School (NOVA IMS), and a Research Fellow at the Centre of Applied Economics Studies of the Atlantic – University of the Azores and Advance/CSG, ISEG - Lisbon University. Her research interests include Digital Marketing, Consumer Behavior, and Tourism. She has published in journals such as the Journal of Business Research and Tourism Management. She is an associate editor at Consumer Behavior in Tourism and Hospitality Journal and serves on the editorial boards of the International Journal of Contemporary Hospitality Management and Tourism Review.

Nuno Sousa

ORCID: <https://orcid.org/0009-0007-8432-6647>

Affiliation: NOVA Information Management School (NOVA IMS), Universidade NOVA de Lisboa, Campus de Campolide, Lisboa, Portugal, www.novaims.unl.pt

Email: nunex2000@gmail.com

Nuno Sousa holds a bachelor's in Management from the University of Azores and a master's in Data-driven Marketing with a specialization in Marketing Intelligence from Universidade NOVA de Lisboa. He is an account manager at Alliance Healthcare with previous professional experience in Management Control at Bensaude Hotels Collection and Community Project Manager at Forall Phones. His research interests focus on Tourism and Consumer Behavior.