


Article

The Impact of Tourist Operant Resources on Online Citizenship Behavior in Sustainable Tourism

Ting Liu ^{1,*}, Chun Ma ¹ , Jiaqi Xue ², Gang Li ^{3,*} and Qiuli Lu ¹

¹ School of Management, Shanghai University, Shanghai 200444, China; machun7012@shu.edu.cn (C.M.); luqiuli2015@163.com (Q.L.)

² School of Business, University of International Business and Economics, Beijing 100029, China; xuejiaqi@uibe.edu.cn

³ School of Management and Economics, North China University of Water Resources and Electric Power, Zhengzhou 450046, China

* Correspondence: tingliu@shu.edu.cn (T.L.); ligang0840907@163.com (G.L.)

Abstract: Sustainability has emerged as a critical concern in the tourism industry. In sustainable tourism, the question of how to engage tourists in value co-creation has started to receive attention. Based on service-dominant logic, this paper develops an integrated model to reveal the impact of tourist operant resources on online citizenship behavior from the perspective of interactions between tourists and online travel agencies (OTAs). Empirical research is conducted using data collected from 301 tourists with customized sustainable tourism experiences. The results show that tourist operant resources are positively associated with online citizenship behavior, with the perceived value (functional value and emotional value) playing a partially mediating role in this relationship. Knowledge distance between tourists and OTA service personnel exerts an inverted U-shaped moderating effect on the relationship between tourist operant resources and functional values, but it does not have a moderating effect on the relationship between tourist operant resources and emotional values. Resource integration capability positively moderates the impact of tourist operant resources on functional and emotional values. This study reveals the contingency role of tourist operant resources in the entire value co-creation process in the context of sustainable tourism and provides practical guidance for OTAs to promote tourists' online citizenship behavior to develop sustainable tourism.

Keywords: sustainable tourism; tourist operant resources; online citizenship behavior; knowledge distance; resource integration capability; value co-creation



Citation: Liu, T.; Ma, C.; Xue, J.; Li, G.; Lu, Q. The Impact of Tourist Operant Resources on Online Citizenship Behavior in Sustainable Tourism. *Sustainability* **2023**, *15*, 16148. <https://doi.org/10.3390/su152316148>

Academic Editor: Fabio Carlucci

Received: 12 September 2023

Revised: 9 November 2023

Accepted: 17 November 2023

Published: 21 November 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

The tourism industry plays a crucial role in driving the global economy, generating employment, stimulating economic growth, and contributing significantly to alleviating poverty [1]. Sustainability has emerged as a key concern in the tourism industry [2]. According to the United Nations World Tourism Organization, sustainable tourism is tourism that takes full account of its current and future economic, social-cultural, and environmental impacts [3]. It addresses the needs of visitors, the industry, the environment, and host communities while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems [4]. The “2022 Sustainable Travel Consumer Report” by the World Travel & Tourism Council (WTTC) and Ctrip.com reveals that sustainable tourism is becoming a global trend, with 69% of travelers actively seeking sustainable tourism options [5]. Many online travel agencies (OTAs), such as Ctrip.com and tuniu.com in China, collaborate with tourism destinations, hotels, and other partners to jointly develop sustainable tourism products, driving the sustainable development of local communities. However, there are still some challenges. OTAs find difficulties in meeting tourists' personalized needs because of their diverse objectives, such as reducing environmental impacts,

seeking more authentic local experiences, preserving cultural heritage sites and traditions, exerting positive effects on communities, or following trends [6]. Some tourists who are willing to prioritize sustainable travel may not be sufficiently familiar with planning sustainable trips, such as finding proper sustainable tourism products. One of the solutions may be engaging tourists in value co-creation, a perspective that emphasizes customer participation in the value creation and collaboration between businesses and customers to generate mutually beneficial value [7,8]. As sustainable tourism is still in the early stages of development, involving tourists in travel service co-production and promotion could foster the overall sustainability and growth of the tourism ecosystem [9].

Existing studies have identified some antecedents of customer value co-creation behavior, including customer motivations [10,11], relationship norms [12], incentive mechanisms [13], adoption of digital technology [14], and so on. Additionally, some scholars have also examined the effects of customer value co-creation, such as increasing customer satisfaction and enjoyment [15,16], improving customer loyalty [17], and consequently building brand equity [18]. Some of these studies were conducted in a tourism context. However, most scholars still believe research on value co-creation in tourism, especially sustainable tourism, to be in its infancy [19], and there are some issues worthy of further investigation.

Firstly, previous studies focus on how tourists engage in value co-creation through tourist–local community engagement and tourist–destination engagement [11,20]. However, limited research attention has been paid to value co-creation between tourists and OTA platforms. OTAs play a significant role in designing tourism plans and facilitating post-trip sharing [21]. They can provide personalized, sustainable tourism options based on tourists' preferences and provide platforms with tourist feedback that may influence other travelers' decisions, contributing to the growth of sustainable tourism [2]. Despite the significance of tourist–OTA engagement, very few empirical studies have examined this area [22].

Secondly, service-dominant logic underscores the significance of operant resources, such as the knowledge, skills, and experience possessed by customers, which are fundamental sources of strategic benefit for businesses [23,24]. Tourists must spend their operant resources to participate in the pre-travel stage value co-creation, such as through gathering travel information, interacting with OTA service personnel, and providing input and suggestions regarding their travel plans [25]. However, the question about the contributive role of tourist operant resources is unanswered [7]. Furthermore, customer participation behavior (in-role behavior) and customer citizenship behavior (extra-role behavior) are two types of value co-creation behavior [26] that do not always occur simultaneously. According to Assiouras et al., the willingness to engage in customer citizenship behavior is also a positive outcome of customer value co-creation [27]. Therefore, it is essential to systematically understand the transformation from investing tourist operant resources in in-role co-creation to proactive extra-role behavior such as online recommendations, help, and feedback post-trip throughout all stages of tourism [28].

Thirdly, scholars advocate that customer operant resources contribute to improving the co-created value [29]. Do tourist operant resources always create value for tourists through an interaction between tourists and OTAs in sustainable tourism? Reality often does not align with desires. In recent years, studies on value co-destruction have revealed that co-creation may have negative effects [30,31]. Plé and Cáceres argued that value co-destruction arose when resources were misused, specifically when they were not integrated or utilized in a manner expected by the other service system [30]. The level of communication and resource integration can influence whether tourist operant resources are misused, thereby affecting the outcomes of interactive value formation [25,32]. Empirical research is needed to investigate how the quality of communication (knowledge distance between tourists and OTA service personnel) as well as the resource integration capability of service personnel influence the effectiveness of tourist operant resources in the context of value co-creation between tourists and OTAs.

To address these gaps, this study aims to answer the following questions regarding value co-creation in the interaction between tourists and OTAs:

RQ 1: How does the investment of tourist operant resources in pre-trip value co-creation transform into online citizenship behavior post-trip?

RQ 2: Can tourist operant resources always generate the expected customer value, and what role do the knowledge distance and resource integration capability play in this process?

This study makes the following contributions. Firstly, unlike previous studies that focus on tourist–local community and tourist–destination engagement, this study examines value co-creation from the perspective of the interaction between tourists and OTA service personnel, thus enriching the empirical literature on tourist participation in value co-creation in the context of sustainable tourism. Secondly, this study reveals the mechanism by which tourists’ in-role operant resource investment in value co-creation transitions to extra-role online citizenship behavior. This helps to provide a deeper understanding of the entire value co-creation process. Thirdly, by introducing knowledge distance between tourists and OTA service personnel and resource integration capabilities, this study uncovers the contingency effects of tourist operant resources in value co-creation, partially addressing the call for research on value co-destruction.

2. Literature Review and Hypothesis Development

2.1. Service-Dominant Logic and Value Co-Creation

Service-dominant logic emerged from the longstanding debate over the primacy of “goods” versus “services” [33]. The traditional goods-centered view focuses on operand resources as the units of exchange [23]. Under service-dominant logic, marketing is viewed as a series of social and economic processes that rely mainly on operant resources [34]. Operand resources represent tangible assets, such as economic resources, products, and raw materials. Operant resources are often invisible and intangible, and are represented by knowledge and capacity [35]. In alignment with the resource advantage theory and core competency theory, service-dominant logic emphasizes that operant resources (skills and knowledge) lie at the heart of value creation and, instead of tangible assets, are the fundamental source of competitive advantage [36].

In the original service-dominant logic, customers are no longer perceived as mere “value receivers” but are also “value co-creators”. As possessors of operant resources, customers can contribute their knowledge, skills, and experience to co-create a desired value during the interaction process with producers [23]. Customers’ operant resources are one of the factors that can enhance customer co-creation behaviors [37]. There are two types of customer value co-creation behaviors: customer participation behavior and customer citizenship behavior [26]. Unlike customer participation behavior, which comprises the necessary in-role behavior for successful value co-creation [38], customer citizenship behavior is voluntary and extra-role, composed of advocacy, help, and feedback, and can create an exceptional value for businesses [39]. In sustainable tourism, tourists’ online citizenship behavior includes recommending sustainable products or services from travel agencies, sharing their own experiences, helping other tourists in selecting sustainable tourism products, and providing feedback and suggestions to tourism service companies via online platforms [31]. The willingness of tourists to engage in online citizenship behaviors is, to some extent, dependent on the value they derive from value co-creation [27].

With continuous refinement and development of the theory, Vargo and Lusch modified their proposition to assert that “value is co-created by multiple actors, always including the beneficiary” [24]. Value co-creation is a dynamic process involving multiple actors who continuously contribute their own operant and operand resources and integrate them through interactions to generate an anticipated value [40]. Collaborative efforts among multiple actors can generate not only economic value but also contribute to the co-creation of social and environmental value [41,42]. OTAs can engage tourists in a process of value co-creation that can be beneficial for both sides. Involving tourists with operant

resources in the co-design of trips could provide a more personalized travel experience that aligns with their individual needs. It may trigger tourists to carry out online citizenship behaviors, such as providing recommendations and feedback about services, which may be beneficial for OTAs. However, within the context of sustainable tourism, there is a lack of empirical research on how multiple participants integrate resources to co-create value and consequently enhance tourists' online citizenship behavior.

2.2. Tourist Operant Resources and Online Citizenship Behavior

Customers are considered as the most valuable asset for businesses [43]. The engagement of customers as value co-creators can improve the efficiency and effectiveness of the value co-creation process [44]. The customer operant resources, including their knowledge and experience, serve as the foundation for their engagement in value co-creation, facilitating communication, interaction, and the collaborative creation of value [23].

In the context of tourism, tourist operant resources encompass knowledge about sustainable tourism products, skills of interacting with OTA service personnel, and experience in customizing tourism itineraries [45]. These resources enable them to actively participate in and contribute their viewpoints to the value co-creation ecosystem of sustainable tourism. This knowledge and experience can also help develop tourists' capability to perform online citizenship behavior that provides valuable suggestions about product and service improvements to OTAs [46], and helps others design their trips in OTAs' online communities. By utilizing their own knowledge and resources to co-design sustainable travel, tourists can gain a more unique experience, resulting in greater engagement and satisfaction [45]. This may increase tourists' willingness to provide voluntary online recommendations and help others in addressing issues on online tourism forums during service encounters [47].

Moreover, sustainable tourism products have novel and non-standardized features. The target tourists for these products are usually "seekers of new experiences". They are more motivated to invest operant resources and work together with OTA service personnel to create a distinctive and customized travel experience. They also have a stronger willingness to share their knowledge and experience with others.

Therefore, the operant resources invested in value co-creation provide tourists with the capability and willingness to facilitate the transformation from in-role to extra-role behavior, enhancing their online citizenship behavior. The following hypothesis is proposed:

H1: *Tourist operant resources are positively associated with online citizenship behavior.*

2.3. The Mediating Role of Tourist Perceived Value

Customer perceived value refers to customers' subjective, comprehensive, and overall perception towards purchased products or services [48]. In this study, it pertains to tourists' combined assessment of tourism products, OTAs, and service personnel, encompassing both functional value and emotional value. Functional value represents tourists' evaluation of the overall utility of the tourism experience after considering gains and losses, while emotional value encompasses feelings such as happiness, relaxation, and excitement that they experience during or after using these services [49].

According to service-dominant logic, when customers' knowledge, skills, and experience are appropriately integrated, they can actively contribute to the production of products and services, creating value within the service system [50,51]. This process leads to unique experiences and perceptions of value [52–54].

On the one hand, tourists possess the knowledge and experience necessary to select suitable tourism products through interactions with OTAs, enabling effective communication with service personnel and clear expression of their expectations and demands. This may facilitate higher satisfaction with the service process and outcomes [55], contributing to an increased functional value [10,56]. These tourists better understand and utilize the functional features of products or services, perceiving them as highly valuable. Tourists

with a greater functional value are more likely to voluntarily share information, provide recommendations, and assist other community members in sustainable tourism [57]. Therefore, tourist operant resources can enhance functional value, thereby promoting feedback, recommendations, and assistance in the online tourism community through customer citizenship behavior.

On the other hand, when tourists contribute their knowledge, skills, and experience to the process of designing tourism itineraries, they earn respect and recognition from service personnel, leading to feelings of pleasure and enjoyment, thus enhancing emotional value [58]. Furthermore, when tourists participate in the service process and engage in self-production, they deepen their connection to the output, triggering emotional transfer and enhancing their sense of satisfaction. Positive emotion strengthens tourists' trust and preference towards OTAs or tourism products, making them more likely to recommend them to others [59]. Muniz and O'Guinn found that participation in activities, such as product design, in brand community empowered customers with a sense of autonomy and pleasure. This could prompt them to engage in communication, interaction, and mutual assistance [60]. Additionally, helping others can also lead to a sense of accomplishment, resulting in increased happiness and satisfaction [61]. These positive experiences drive tourists to consistently engage in online citizenship behavior. Thus, tourist operant resources can also promote citizenship behavior within online tourism communities by enhancing perceived emotional value of tourists.

Consequently, the following hypothesis is proposed:

H2: *Tourist perceived value (a. functional value; b. emotional value) mediates the relationship between tourist operant resources and online citizenship behavior.*

2.4. The Moderating Role of Knowledge Distance

In the highly interactive tourism industry, value is generated through interactions between tourists and service personnel [56]. The quality of communication between both parties can influence whether tourists' resource investment leads to the expected value. Due to the varying perspectives on approaches to sustainable tourism development, as well as the differing experiences and preferences regarding sustainable tourism, OTA service personnel and tourists may possess distinct knowledge bases that affect the quality of their communication. This difference in the knowledge possessed by information providers and receivers is referred to as knowledge distance [62].

When the level of knowledge distance between tourists and OTA service personnel is low and they share excessive similarity in knowledge, skills, and experiences, customers may not perceive a new value output [63]. Tourists may feel that they can select suitable tourism products based solely on their own knowledge and experience, without the need to communicate with service personnel. Their investment in terms of knowledge, emotions, and cognition may not yield equitable returns, reducing the perception of functional and emotional value [64,65].

As the knowledge distance increases, their levels of knowledge, skills, and experience show a certain degree of diversity at a reasonable level. This means that both parties share some common knowledge background and have similar viewpoints but are not completely identical [66]. In this way, tourists can understand the proposed value of OTAs and the guidance of service personnel, while service personnel can obtain necessary information regarding the demands and suggestions of tourists. Additionally, both parties can generate new value through the collision of different opinions and viewpoints, thereby enhancing tourists' perception of functional value [58]. Furthermore, tourists are likely to gain more respect and recognition from service personnel by contributing unique suggestions during the co-creation process, leading to an increase in perceived emotional value [59].

However, when the knowledge distance exceeds a certain extent, tourists may find it difficult to understand and evaluate the proposed value of OTAs. Service personnel

may also encounter obstacles in understanding tourists' interests and demands [67]. An excessive knowledge distance becomes a communication barrier, and communication difficulties hinder optimal value creation [68]. Consequently, tourists may perceive their invested resources as being misused, potentially leading to value co-destruction [30] and decreasing their perceived value. Under these circumstances, tourists need to invest additional time and effort into the interaction process, leading to a reduced utilization of their operant resources in value co-creation, making it challenging to create satisfactory value.

Therefore, the optimal level of perceived value from the investment of tourist operant resources can be achieved only when there is a moderate knowledge distance between tourists and service personnel. The following hypothesis is proposed:

H3: *The moderating effect of knowledge distance on the relationship between tourist operant resources and tourist perceived value (a. functional value; b. emotional value) is an inverted U-shape.*

2.5. The Moderating Role of Resource Integration Capability

The resource-based view emphasizes the importance of operant resources, such as knowledge, skills, and experience [69]. However, static and singular resources do not equate to value. Customer operant resources can only become valuable when effectively integrated with other resources and utilized towards reaching a unified value creation objective [70]. Scholars have pointed out that the misuse of customer resources is one of the significant factors leading to value deterioration. For instance, Plé and Cáceres suggested that employees' successful integration of customer resources could lead to value co-creation during the interaction process, while an improper integration of resources might result in value destruction [30]. This study takes the resource integration capability of OTA service personnel as another boundary condition that affects tourist participation in value co-creation.

Resource integration capability refers to the ability of firms to combine the resources owned and acquired, and rebuild and restructure these resource bases in pursuit of value creation [71]. In this study, it refers to the ability of OTA service personnel to effectively integrate the resources provided by customers with resources of OTAs to create value for tourists. The resources of OTAs encompass a wide range of travel products (such as hotels, airlines, attractions, and local activities) and service options (such as travel data and information, payment processing, and customer support). As resource integrators, OTA service personnel need to align these resources based on tourists' expectations and preferences, thus offering services that meet requirements [9].

Service personnel with a strong level of resource integration capability can easily identify valuable information from the input provided by tourists and obtain other necessary resources from various channels to fulfill diverse customer needs, thereby enhancing tourists' perceived functional value [72]. Simultaneously, effective resource integration enables the incorporation of customers' ideas and suggestions into the output, leading to greater psychological satisfaction and pleasure [73], thus improving tourists' emotional value. Conversely, if service personnel cannot obtain and integrate resources properly, they may fail in effectively addressing tourists' issues, resulting in the wastage of customer resources [74] and a decrease in value perception [75]. The following hypothesis is proposed:

H4: *Resource integration capability positively moderates the relationship between tourist operant resources and tourist perceived value (a. functional value; b. emotional value).*

Drawing on the hypotheses presented above, a conceptual model is shown in Figure 1.

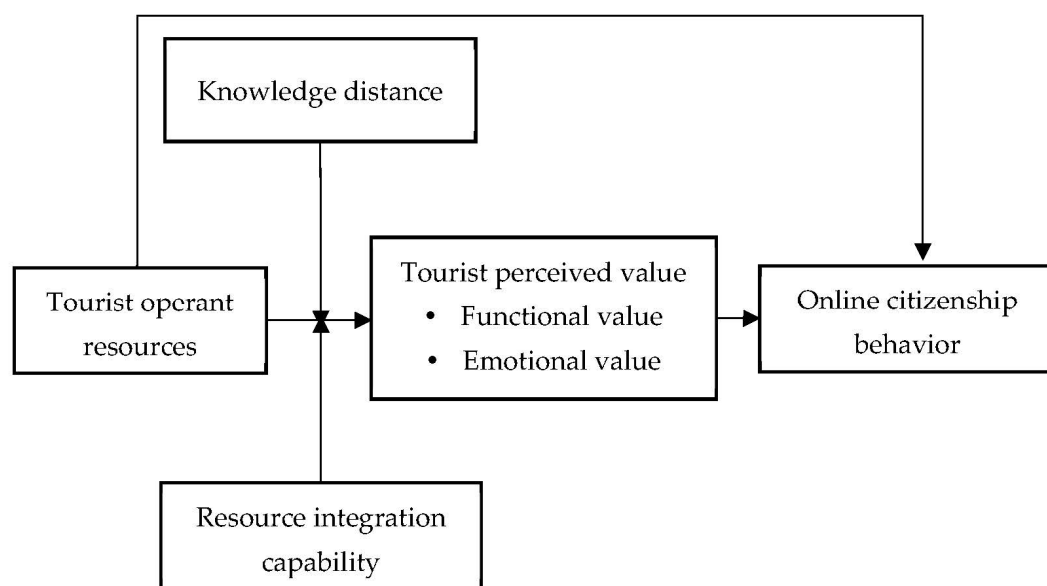


Figure 1. Conceptual model.

3. Methodology

3.1. Sample Selection and Data Collection

This study primarily investigated value co-creation between tourists and OTAs in the context of sustainable tourism. Tourists who had used customized sustainable tourism services in OTAs were the focus of our research. They were involved in the design of the trip and interacted with the OTA service personnel to co-create value. Data collection was conducted through an online questionnaire survey using two approaches. First, we reached out to individuals with customized tourism experiences through tourism forums and WeChat groups, and invited them to participate in our survey. Second, we sent the questionnaires through one of the online market research companies in China. The screening question “Do you choose low-carbon tourism products, eco-tourism, cultural tourism, or other products related to sustainable development?” was designed to filter out invalid responses. We received a total of 411 questionnaires, of which 301 were valid, resulting in an effective response rate of 73.24%.

Table 1 shows the demographic profiles of the respondents. The statistical data show that most of the users are well-educated young people (from 18 to 35 years old). This aligns with Ctrip’s report that “young people are the main target group for sustainable tourism products”.

Table 1. Demographics of respondents.

Characteristics	Category	Frequency (<i>n</i> = 301)	Percentage (%)
Gender	Male	152	50.50
	Female	149	49.50
Age	18–25	134	44.52
	26–35	115	38.21
	36–45	37	12.29
	Above 45	15	4.98
Occupation	Student	75	24.92
	Enterprise personnel	129	42.86
	Public official	53	17.61
	Freelancer	37	12.29
	Others	7	2.33

Table 1. Cont.

Characteristics	Category	Frequency (<i>n</i> = 301)	Percentage (%)
Education	High school and below	19	6.31
	Undergraduate	212	70.43
	Postgraduate and above	70	23.26
Yearly income	Below 100,000 RMB	57	18.94
	100,000–200,000 RMB	114	37.87
	200,000–300,000 RMB	77	25.58
	300,000–400,000 RMB	35	11.63
	Above 400,000 RMB	18	5.98

3.2. Measurements

We utilized multi-item scales to operationalize key variables, except for the control variables (see Table 2). The items were primarily derived from previous research, with certain adjustments made to align them with the specific context of this investigation. A 7-point Likert scale with endpoints of “strongly disagree” and “strongly agree” was used to measure the items.

Table 2. Results of reliability and validity analyses.

Constructs and Items	Factor Loading
Tourist operant resources ($\alpha = 0.924$, AVE = 0.633, CR = 0.923)	
1. I have experience in making tourism plans.	0.773
2. I have the basic knowledge and ability to make tourism plans, which helps me better utilize this service.	0.812
3. I have some knowledge about sustainable tourism.	0.821
4. I have used the services of this online travel agency before.	0.711
5. I am familiar with the destination for this trip.	0.827
6. Based on my knowledge of the destination and past experiences, I can judge whether the recommendations from the service personnel are reasonable.	0.825
7. I have the experience of communicating with tourism service personnel and can communicate with them very smoothly.	0.794
Functional value ($\alpha = 0.926$, AVE = 0.677, CR = 0.926)	
1. The customized tourism service personnel were highly professional, and their advice was very valuable.	0.829
2. Relative to other tourism packages, the customized tourism I participated in designing had an acceptable level of quality.	0.786
3. The tourism package purchased was well organized.	0.830
4. The tourism experience was as expected.	0.817
5. The tourism package purchased was reasonably priced.	0.846
6. It was a good purchase for the price paid.	0.828
Emotional value ($\alpha = 0.863$, AVE = 0.678, CR = 0.863)	
1. Participating in the formulation of the customized tourism plan made me feel very happy and satisfied.	0.804
2. I felt relaxed when communicating with the customized tourism service personnel.	0.819
3. I was comfortable with the tourism package purchased.	0.847
Knowledge distance ($\alpha = 0.923$, AVE = 0.714, CR = 0.925)	
1. There was a significant difference in the knowledge base between me and the customized tourism service personnel.	0.813
2. I lacked relevant knowledge about tourism to understand the advice proposed by the service personnel.	0.905
3. The tourism service personnel found it difficult to understand the suggestions I put forward.	0.913
4. The disparity in sustainable tourism knowledge between me and the customized tourism service personnel made the discussions very difficult.	0.886
5. Due to the similarity in knowledge base between me and the service personnel, it was easy for us to communicate. *	0.688

Table 2. Cont.

Constructs and Items		Factor Loading
Resource integration capability ($\alpha = 0.946$, AVE = 0.744, CR = 0.946)		
1.	The customized tourism service personnel proactively sought to understand my requirements regarding the tourism plan.	0.854
2.	The customized tourism service personnel actively sought my suggestions for the tourism plan.	0.863
3.	The customized tourism service personnel obtained more tourism resources from the company based on my requirements.	0.863
4.	The customized tourism service personnel obtained more tourism resources from the company based on my suggestions for the tourism plan.	0.850
5.	The customized tourism service personnel were able to integrate the resources from both sides effectively, resulting in a better fulfillment of my customized tourism requirements.	0.847
6.	The customized tourism service personnel were able to effectively integrate resources from various parties to formulate the tourism plan.	0.897
Online citizenship behavior ($\alpha = 0.930$, AVE = 0.691, CR = 0.931)		
1.	I will recommend the customized tourism services of this travel agency to my friends and family members.	0.838
2.	I will recommend this travel agency to people who are interested in sustainable tourism.	0.803
3.	I will assist others in finding suitable customized tourism products and services from this agency on online tourism forum.	0.816
4.	I will teach others how to purchase the customized tourism services of this travel agency correctly.	0.823
5.	I am willing to provide helpful online feedback to the agency.	0.859
6.	I am willing to provide information during online surveys conducted by the travel agency.	0.847

Note: AVE = average variance extracted; CR = composite reliability; * reverse question.

Tourist operant resources are defined as the knowledge, skills, and experience possessed by tourists that can be applied in the co-creation of value [76]. According to the definition, and in conjunction with interviews and Baron and Warnaby's cultural resources scale [77], a scale comprising seven items was used to measure tourist operant resources.

Perceived value refers to the subjective and holistic perception of customers towards the products or services they purchase [78]. In this study, perceived value refers to the combined evaluation made by the tourists of purchased tourism packages, the OTA service personnel, and the company or service providers offering the packages and services. It encompasses both functional value and emotional value. Based on the work of Sánchez et al. [49], we used six items to measure functional value and three items to measure emotional value.

Knowledge distance refers to the extent of dissimilarity in terms of knowledge, expertise, or understanding between tourists and OTA service personnel [62]. Based on Cummings and Teng [62], we developed a five-item scale to measure knowledge distance.

Resource integration capability refers to the ability of OTA service personnel to effectively integrate the resources provided by customers with resources of OTAs to create value for tourists. Based on Ge and Dong [71], six items were used to measure resource integration capability.

Online citizenship behavior refers to the voluntary extra-role actions of tourists, which in this study include recommending sustainable tourism products online, providing relevant information to others in online communities, and offering feedback and suggestions to OTAs [79]. Adapted from Groth [26], six items were used to measure tourist online citizenship behavior.

This study also involved control variables, such as gender, age, occupation, education level, and income.

4. Data Analysis and Results

4.1. Common Method Bias

There was a possibility of common method bias in this study due to the use of self-reported data. To mitigate this issue, we adjusted the order of some questions in the

questionnaire design, which partially reduced the impact of common method bias. After data collection, Harman's single-factor test was conducted. All measurement items were subjected to unrotated exploratory factor analysis [80]. The results show that no single factor accounted for a significant portion of covariance, indicating the absence of common method bias in this study.

4.2. Reliability and Validity Test

This study employed SPSS 24.0 and AMOS 24.0 software for reliability and validity tests. As shown in Table 2, Cronbach's α coefficients for latent variables are all above 0.90, indicating high internal consistency. Following Bagozzi and Yi [81], this study also computed composite reliability (CR) scores to assess construct reliability. As reported in Table 2, all factors have CRs greater than 0.70.

Confirmatory factor analysis (CFA) was conducted, with the following results showing a good fit ($\chi^2/df = 2.067$; RMSEA = 0.060; CFI = 0.927; NFI = 0.869; IFI = 0.928; and TLI = 0.920). As shown in Table 2, the factor loading of each variable is greater than 0.7, indicating good convergent validity. Additionally, the average extracted variance (AVE) values for all variables are above 0.5, which also demonstrates good convergent validity.

Discriminant validity was assessed following the procedure recommended by Fornell and Larcker [82]. The square root of AVE for each variable is greater than its correlation with other variables, indicating that these variables possess good discriminant validity.

Therefore, based on the obtained results, it can be concluded that the factors in this study possess good reliability and validity. Table 3 lists the descriptive statistics and Pearson's correlation coefficients of the variables.

Table 3. Descriptive statistics and correlation matrix.

Variables	1	2	3	4	5	6
1. Tourist operant resources	0.796					
2. Functional value	0.584 **	0.823				
3. Emotional value	0.520 **	0.581 **	0.823			
4. Knowledge distance	0.169 **	0.135 *	0.052	0.845		
5. Resource integration capability	0.597 **	0.565 **	0.583 **	0.133 *	0.863	
6. Online citizenship behavior	0.550 **	0.574 **	0.561 **	0.031	0.590 **	0.831
Mean	5.400	5.456	5.505	4.346	5.398	5.451
Standard deviation	1.164	1.109	1.147	1.542	1.226	1.128

Note: * $p < 0.05$, ** $p < 0.01$. The bold on the diagonal is the square root of the arithmetic of AVE.

4.3. Results

4.3.1. Direct Effect Test

We used hierarchical regression to test the hypotheses, and the results are shown in Table 4. Model 10 shows that tourist operant resources have a significant positive effect on online citizenship behavior ($\beta = 0.552$, $p < 0.01$), thus supporting Hypothesis H1.

4.3.2. Mediating Effect Test

This study followed the method proposed by Baron and Kenny [83], conducting four analytical steps to examine the mediation effect. As seen from Models 2 and 6, tourist operant resources have a significant positive influence on both functional value ($\beta = 0.560$, $p < 0.01$) and emotional value ($\beta = 0.518$, $p < 0.01$). Then, we simultaneously include the independent variable (tourist operant resources) and the mediator variables (functional value and emotional value) in regression Model 11. Both functional value ($\beta = 0.288$, $p < 0.01$) and emotional value ($\beta = 0.262$, $p < 0.01$) are significantly positively correlated with online citizenship behavior. Moreover, the effect of tourist operant resources on online citizenship behavior drops from 0.552 to 0.254. Thus, it can be concluded that functional value and emotional value partially mediate the relationship between tourist operant resources and online citizenship behavior, confirming Hypothesis H2.

Table 4. Hierarchical regression results.

Variables	Functional Value				Emotional Value			Online Citizenship Behavior			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Gender	−0.051	−0.040	−0.077	−0.031	−0.048	−0.038	−0.087	−0.065	0.006	0.017	0.038
Age	−0.113	−0.075	−0.083	−0.093	0.012	0.047	0.023	0.046	0.072	0.110	0.119
Occupation	0.012	−0.011	0.013	−0.015	0.051	0.030	0.065	0.060	0.019	−0.003	−0.008
Education	−0.199 **	−0.131	−0.147	−0.121	−0.094	−0.031	−0.065	−0.032	−0.079	−0.012	0.034
Yearly income	0.159 *	0.075	0.077	0.083	0.014	−0.037	−0.033	−0.028	0.071	−0.012	−0.024
Tourist operant resources (TOR)		0.560 **	0.357 **	0.260 **		0.518 **	0.253 **	0.218 **		0.552 **	0.254 **
Functional value (FV)											0.288 **
Emotional value (EV)											0.262 **
Knowledge distance (KD)			−0.029	0.303 **			−0.079	0.155			
Square of KD				0.224				0.290 **			
Resource integration capability (RIC)			0.356 **	0.364 **			0.453 **	0.508 **			
TOR × KD				−0.264 **				−0.091			
TOR × KD ²				−0.216 **				−0.140			
TOR × RIC				0.128 *				0.190 **			
R ²	0.059	0.361	0.450	0.607	0.020	0.279	0.409	0.633	0.022	0.315	0.460
ΔR ²		0.302	0.089	0.157		0.259	0.130	0.224		0.293	0.145
Hierarchical F		138.47 **	23.54 **	28.66 **		105.25 **	32.01 **	43.79 **		125.33 **	39.07 **

Note: * $p < 0.05$, ** $p < 0.01$. $F = (\Delta R^2 / \Delta k)(N - k_2 - 1) / (1 - R_2^2)$, where k is the number of predictors and N the total sample size.

Additionally, in accordance with the recommendation of Hayes [84], this study further validated the mediation effects using the process and bootstrap methods. The results indicate that the mediation effect size of functional value is 41.25%, with a 95% confidence interval of [0.133, 0.339], which does not include 0. This indicates the partial mediating effect of functional value. Similarly, the mediation effect of emotional value is 34.87%, with a 95% confidence interval of [0.110, 0.307], which does not include 0. These findings further support Hypothesis H2.

4.3.3. Moderating Effect Test

Based on Model 4 in Table 4, it can be seen that the interaction between tourist operant resources and the square of knowledge distance is significantly negatively related to functional value ($\beta = -0.216$, $p < 0.01$). As shown in Figure 2, knowledge distance exerts an inverted U-shaped moderating effect on the relationship between tourist operant resources and functional value. Hypothesis H3a is therefore supported. From Model 8, the interaction terms “tourist operant resources × knowledge distance” ($\beta = -0.091$, $p > 0.05$) and “tourist operant resources × the square of knowledge distance” ($\beta = -0.140$, $p > 0.05$) can be seen to have no significant impact on emotional value. Consequently, Hypothesis H3b is not supported.

From Model 4, it can be seen that the interaction term between tourist operant resources and resource integration capability is significantly positively related to functional value ($\beta = 0.128$, $p < 0.05$). This indicates that resource integration capability positively moderates the impact of tourist operant resources on functional value. Thus, Hypothesis H4a is supported.

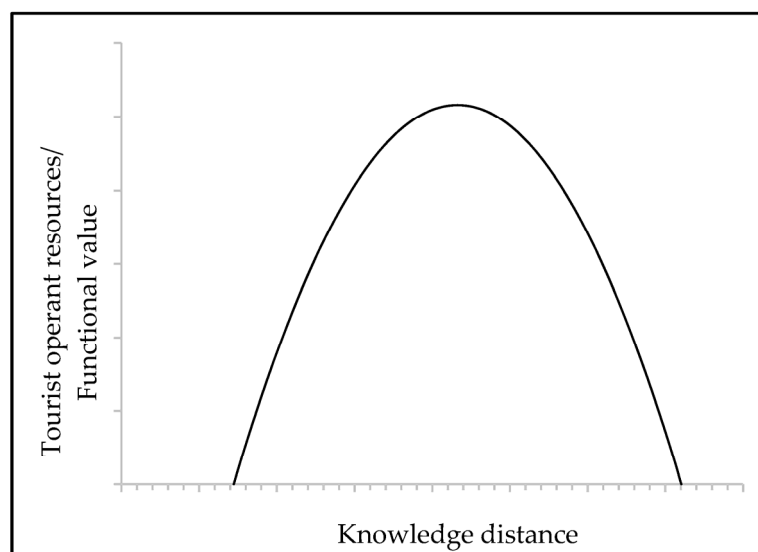


Figure 2. The inverted U-shaped moderating effect of knowledge distance.

Similarly, from Model 8, it can be seen that the interaction term between tourist operant resources and resource integration capability is significantly positively related to emotional value ($\beta = 0.190, p < 0.01$). This implies that resource integration capability positively moderates the influence of tourist operant resources on emotional value. Consequently, Hypothesis H4b is also supported.

In order to better understand the moderation effect of resource integration capability, this study presents moderation effect graphs for different levels of resource integration capability (Figures 3 and 4). When resource integration capability is low, the impact of tourist operant resources on functional value and emotional value is not significant. However, when resource integration capability is high, the positive influence of tourist operant resources on functional value and emotional value becomes significant. These further support Hypotheses H4a and H4b.

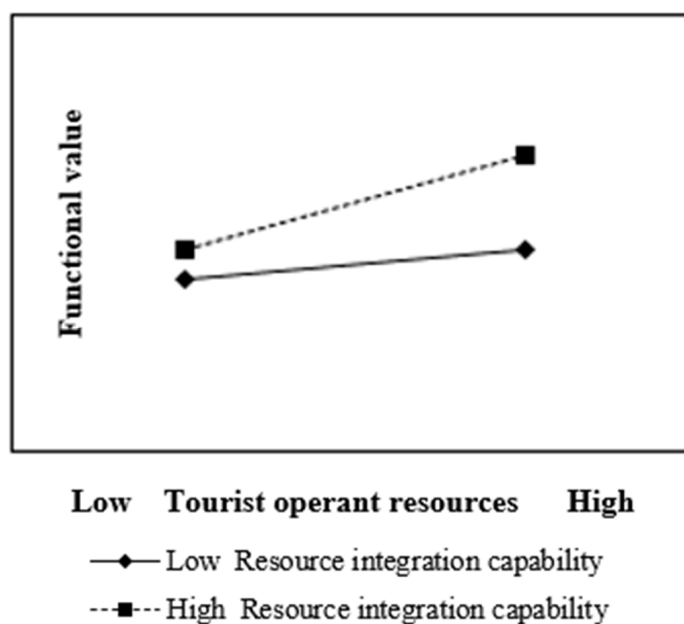


Figure 3. The moderating role of resource integration capability in the relationship between tourist operant resources and functional value.

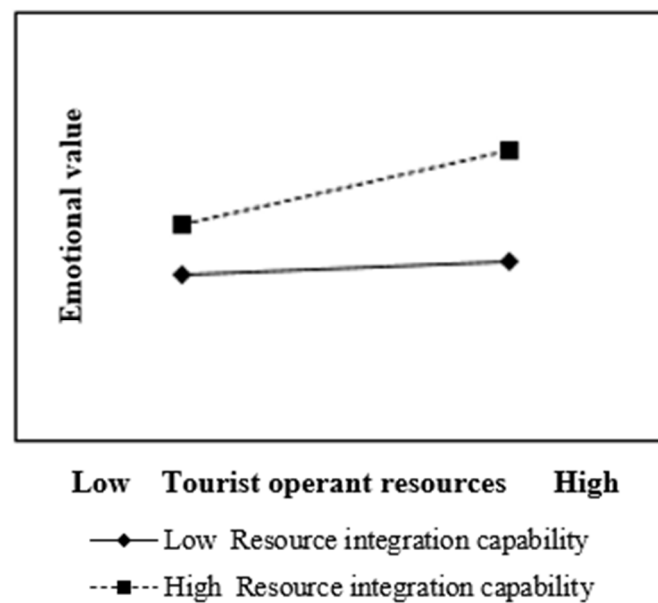


Figure 4. The moderating role of resource integration capability in the relationship between tourist operant resources and emotional value.

5. Conclusions and Discussion

5.1. Conclusions

How to engage tourists in value co-creation and harness their role in sustainable tourism development has been one of the crucial research questions in recent years [9]. Due to the immature development of the sustainable tourism industry, utilizing tourist operant resources to co-create tourism experience and to promote online citizenship behavior can be beneficial for both service providers and tourists. Based on service-dominant logic, this study constructs a model to examine the impact of tourist operant resources on online citizenship behavior from the perspective of the interaction between tourist and OTA service personnel. The empirical findings are as follows:

(1) The operant resources held by tourists can enhance their online citizenship behavior. Further, tourists' perceived functional and emotional values partially mediate the above relationship. (2) Knowledge distance has an inverted U-shaped moderating effect on the relationship between tourist operant resources and perceived functional value. This implies that the investment of tourist operant resources can generate the highest functional value when the level of knowledge distance between tourists and OTA service personnel is moderate. (3) Resource integration capability can enhance the impact of tourist operant resources on creating functional and emotional value.

The empirical results do not find evidence of a moderating effect of knowledge distance on the relationship between tourist operant resources and emotional value. This could be attributed to the following reasons. Knowledge distance primarily considers the differences and similarities between tourists and OTA service personnel in terms of knowledge level, knowledge stock, and knowledge structure [85]. It may affect how well both parties match in terms of knowledge, skills, and experience during their interaction, which in turn may influence tourists' value assessment of the results of customized tourism solutions. Emotional value, on the other hand, focuses on the pleasure that customers experience during tourism, and it may be less influenced by knowledge distance.

5.2. Theoretical Contributions

This study makes three theoretical contributions. Firstly, this study explores the issue of utilizing tourist operant resources for value co-creation from the perspective of the interactions between tourists and OTA service personnel. In the field of tourism research, there has been a lack of attention on value co-creation between tourists and OTAs [22]. By

filling this gap, this study enhances our understanding of how value co-creation is shaped in the domain of sustainable tourism and enriches the empirical research literature.

Secondly, this study contributes by investigating how the use of tourist operant resources in value co-creation during the pre-trip stages affects their post-trip online citizenship behavior. Tourists' online citizenship behavior plays a crucial role in promoting sustainable tourism products, helping service providers improve their services, and enhancing the experience of other tourists [86]. Previous research has often separately studied the antecedents and consequences of customer participation behavior and customer citizenship behavior [20,56,87,88] without delving into their inherent connections. This study finds that the input of tourist operant resources in pre-trip interactions with OTA personnel can increase functional and emotional value, thus resulting in more post-trip online citizenship behavior based on the social exchange theory. This study sheds light on the transition pathway from in-role to extra-role behavior from the perspective of the value co-creation process, and provides a deeper understanding of the evolution of tourist value co-creation behavior.

Thirdly, this study introduces knowledge distance and resource integration capability as moderating variables to investigate the varying effects of customer operant resources under different circumstances. Previous research has primarily focused on the positive effects of customer participation in value creation [15,53,89]. However, there has been growing attention to the issue of value co-destruction in recent years [90]. Echeverri and Skålén pointed out that one of the reasons for value co-destruction is resource misuse [91]. Therefore, the conditions under which tourist resources can be effectively utilized to avoid value destruction are a critical concern. Since value co-creation results from multi-actor collaboration, this study explores the impacts of knowledge distance and resource integration ability from the perspective of tourist–OTA engagement. It suggests that when the knowledge distance between tourists and OTA service personnel is moderate, effective communication can be achieved to create new value for both parties, leading to the optimal level of value co-creation. Moreover, it is only when service personnel possess a strong resource integration capability that they can effectively combine the available resources with tourist operant resources and align them with tourists' requirements to enhance both functional and emotional value. Conversely, without these capabilities, there is a risk of misusing tourist resources. This study responds to the call for research on value co-destruction, providing insights into the boundary conditions of the contributive role of tourist operant resources.

5.3. Managerial Implication

This study provides implications for OTAs to better guide the investment of tourist operant resources in value co-creation, enabling them to effectively leverage tourists' roles in promoting sustainable tourism.

Firstly, OTAs should create conditions to encourage tourists to invest more experiential knowledge and other operant resources when designing their trips. Tourist operant resources effectively enhance value perception and, in turn, boost online citizenship behavior. To stimulate tourists' extra-role behavior, such as through encouraging them to recommend sustainable tourism products from OTAs, share their positive tourism experiences on OTA forums, as well as engage in other online citizenship behaviors, value must be created for these tourists as the first step [92]. One crucial way to achieve this is by encouraging them to invest resources in co-producing sustainable trips. Therefore, OTAs can develop more customized tourism products, enhance communication between service personnel and tourists, and engage in marketing activities aimed at motivating tourists to contribute their creativity and skills in co-creating value.

Secondly, expanding the knowledge boundaries of service personnel and aligning them more closely with tourists can enhance the functional value provided to tourists. Given that knowledge distance has an inverted U-shaped moderating effect, service personnel are required to possess knowledge and abilities in various aspects. They can then

form value propositions and communication styles that align with tourists of different knowledge levels. This approach maximizes the understanding of tourists and generates more valuable recommendations, helping tourists achieve higher functional value after investing operant resources.

Thirdly, OTAs should provide systematic training to their service personnel to enhance their resource integration capability. This way, tourists' knowledge and skills can be optimally integrated with the other resources, thereby avoiding the misuse of tourist operant resources. Additionally, OTAs should organize their internal resources (tourism products and services) effectively, facilitating resource integration for service personnel. This is aimed at achieving optimal resource integration for maximizing value co-creation.

5.4. Limitations and Future Research

This study also has certain limitations that call for further research. Firstly, it focuses solely on the interaction between tourists and OTAs. In reality, in sustainable tourism, value co-creation participants also include destination attractions, local community members, other tourists, hotels and other tourism service companies, and governments. To mitigate these gaps, future research could further investigate how interactions among other participants in the co-creation ecosystem affect value co-creation. Secondly, there may be differences between the tourists who purchase sustainable tourism products and those who do not in the motivation to engage in value co-creation, the interaction characteristics, and the conditional effects of value co-creation behavior. Understanding these differences could lead to more effective development of sustainable tourism. In this study, we only focused on tourists who participate in sustainable tourism, and further comparative research can be conducted in the future. Finally, this study only considers the moderating roles of knowledge distance and resource integration ability. Further research should consider other possible moderating factors, such as personal characteristics, cultural backgrounds, and technical factors, to deepen the understanding of the contingent effects of customer participation in value co-creation in sustainable tourism.

Author Contributions: Conceptualization, T.L.; methodology, C.M. and Q.L.; formal analysis, Q.L.; investigation, C.M.; data curation, T.L. and Q.L.; validation, J.X.; writing—original draft preparation, T.L. and C.M.; writing—review and editing, T.L., J.X. and G.L.; supervision, T.L. and G.L.; project administration, T.L. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Humanities and Social Science Fund of the Chinese Ministry of Education (18YJA630065), National Social Science Fund of China (21BGL044), and Henan University Philosophy and Social Science Innovation Team Funding Project (2019-CXTD-12, 2024-CXTD-10).

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study are available upon request from the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Khan, A.; Bibi, S.; Lorenzo, A.; Lyu, J.; Babar, Z.U. Tourism and Development in Developing Economies: A Policy Implication Perspective. *Sustainability* **2020**, *12*, 1618. [\[CrossRef\]](#)
2. Paul, I.; Roy, G. Tourist's Engagement in Eco-Tourism: A Review and Research Agenda. *J. Hosp. Tour. Manag.* **2023**, *54*, 316–328. [\[CrossRef\]](#)
3. Carbone, G.; Yunis, E. *Making Tourism More Sustainable: A Guide for Policy Makers*; United Nations Environment Programme (UNEP), World Tourism Organization (WTO): Madrid, Spain, 2005; ISBN 978-92-844-0821-4.
4. Saleem, M.A.; Li, J.; Afzal, H. Protect for Affinity? The Role of Destination Brand Engagement in Forming Environmentally Responsible Tourist Behaviours. *J. Sustain. Tour.* **2021**, *29*, 1344–1364. [\[CrossRef\]](#)
5. Trip.com Group. Sustainable Travel Consumer Report 2022. Available online: <https://bit.ly/3xTw3Z9> (accessed on 20 July 2023).

6. Tao, L. Online Travel Agencies (OTAs): A New Product of e-Commerce. In *International Conference on Cloud Computing, Internet of Things, and Computer Applications (CICA 2022)*; SPIE: Bellingham, WA, USA, 2022; Volume 12303, pp. 431–438. [\[CrossRef\]](#)
7. Carvalho, P.; Alves, H. Customer Value Co-Creation in the Hospitality and Tourism Industry: A Systematic Literature Review. *Int. J. Contemp. Hosp. Manag.* **2022**, *35*. [\[CrossRef\]](#)
8. Sugathan, P.; Ranjan, K.R. Co-Creating the Tourism Experience. *J. Bus. Res.* **2019**, *100*, 207–217. [\[CrossRef\]](#)
9. Font, X.; English, R.; Gkritzali, A.; Tian, W. (Stella). Value Co-Creation in Sustainable Tourism: A Service-Dominant Logic Approach. *Tour. Manag.* **2021**, *82*, 104200. [\[CrossRef\]](#)
10. An, M.; Han, S.-L. Effects of Experiential Motivation and Customer Engagement on Customer Value Creation: Analysis of Psychological Process in the Experience-Based Retail Environment. *J. Bus. Res.* **2020**, *120*, 389–397. [\[CrossRef\]](#)
11. Chen, Y.; Cottam, E.; Lin, Z. The Effect of Resident-Tourist Value Co-Creation on Residents' Well-Being. *J. Hosp. Tour. Manag.* **2020**, *44*, 30–37. [\[CrossRef\]](#)
12. Zhang, H.-Y.; Liu, T.; Chen, Y.-W. The Effects of Relationship Norms on On-Line New Product Development Value Co-Creation Engagement. In *Proceedings of the 2017 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)*, Singapore, 10–13 December 2017; pp. 2231–2235. [\[CrossRef\]](#)
13. Ind, N.; Coates, N.; Lerman, K. The Gift of Co-Creation: What Motivates Customers to Participate. *J. Brand Manag.* **2020**, *27*. [\[CrossRef\]](#)
14. Lei, S.I.; Ye, S.; Wang, D.; Law, R. Engaging Customers in Value Co-Creation Through Mobile Instant Messaging in the Tourism and Hospitality Industry. *J. Hosp. Tour. Res.* **2019**, *44*, 229–251. [\[CrossRef\]](#)
15. Hollebeek, L.; Rather, R.A. Service Innovativeness and Tourism Customer Outcomes. *Int. J. Contemp. Hosp. Manag.* **2019**, *31*, 4227–4246. [\[CrossRef\]](#)
16. Assiouras, I.; Skourtis, G.; Giannopoulos, A.; Buhalis, D.; Karaosmanoglu, E. Testing the Relationship between Value Co-Creation, Perceived Justice and Guests' Enjoyment. *Curr. Issues Tour.* **2023**, *26*, 587–602. [\[CrossRef\]](#)
17. Busser, J.A.; Shulga, L.V. Co-Created Value: Multidimensional Scale and Nomological Network. *Tour. Manag.* **2018**, *65*, 69–86. [\[CrossRef\]](#)
18. González-Mansilla, Ó.; Berenguer-Contrí, G.; Serra-Cantalops, A. The Impact of Value Co-Creation on Hotel Brand Equity and Customer Satisfaction. *Tour. Manag.* **2019**, *75*, 51–65. [\[CrossRef\]](#)
19. Lan, T.; Zheng, Z.; Tian, D.; Zhang, R.; Law, R.; Zhang, M. Resident-Tourist Value Co-Creation in the Intangible Cultural Heritage Tourism Context: The Role of Residents' Perception of Tourism Development and Emotional Solidarity. *Sustainability* **2021**, *13*, 1369. [\[CrossRef\]](#)
20. Shoukat, M.H.; Ramkissoon, H. Customer Delight, Engagement, Experience, Value Co-Creation, Place Identity, and Revisit Intention: A New Conceptual Framework. *J. Hosp. Mark. Manag.* **2022**, *31*, 757–775. [\[CrossRef\]](#)
21. Talwar, S.; Dhir, A.; Kaur, P.; Mäntymäki, M. Why Do People Purchase from Online Travel Agencies (OTAs)? A Consumption Values Perspective. *Int. J. Hosp. Manag.* **2020**, *88*, 102534. [\[CrossRef\]](#)
22. Hamidi, F.; Shams Gharneh, N.; Khajeheian, D. A Conceptual Framework for Value Co-Creation in Service Enterprises (Case of Tourism Agencies). *Sustainability* **2020**, *12*, 213. [\[CrossRef\]](#)
23. Vargo, S.; Lusch, R. Evolving to a New Dominant Logic. *J. Mark.* **2004**, *68*, 1–17. [\[CrossRef\]](#)
24. Vargo, S.; Lusch, R. Institutions and Axioms: An Extension and Update of Service-Dominant Logic. *J. Acad. Mark. Sci.* **2016**, *44*, 5–23. [\[CrossRef\]](#)
25. Elettigerra, A.; Barrutia, J.M.; Echebarria, C. Tourist Expertise and Pre-Travel Value Co-Creation: Task-Related Processes and Beyond. *Tour. Manag. Perspect.* **2021**, *37*, 100772. [\[CrossRef\]](#)
26. Groth, M. Customers as Good Soldiers: Examining Citizenship Behaviors in Internet Service Deliveries. *J. Manag.* **2005**, *31*, 7–27. [\[CrossRef\]](#)
27. Assiouras, I.; Skourtis, G.; Giannopoulos, A.; Buhalis, D.; Koniordos, M. Value Co-Creation and Customer Citizenship Behavior. *Ann. Tour. Res.* **2019**, *78*, 102742. [\[CrossRef\]](#)
28. Guzel, M.; Sezen, B.; Alniacik, U. Drivers and Consequences of Customer Participation into Value Co-Creation: A Field Experiment. *J. Prod. Brand Manag.* **2020**, *30*, 1047–1061. [\[CrossRef\]](#)
29. Hau, L.N. The Role of Customer Operant Resources in Health Care Value Creation. *Serv. Bus.* **2019**, *13*, 457–478. [\[CrossRef\]](#)
30. Plé, L.; Cáceres, R. Not Always Co-Creation: Introducing Interactional Co-Destruction of Value in Service-Dominant Logic. *Keywords. J. Serv. Mark.* **2010**, *24*, 430–437. [\[CrossRef\]](#)
31. Arica, R.; Polat, I.; Cobanoglu, C.; Çorbacı, A.; Chen, P.-J.; Hsu, M.-J. Value Co-Destruction and Negative e-WOM Behavior: The Mediating Role of Tourist Citizenship. *Tour. Rev.* **2022**, *77*, 1116–1134. [\[CrossRef\]](#)
32. Castillo, D.; Canhoto, A.I.; Said, E. The Dark Side of AI-Powered Service Interactions: Exploring the Process of Co-Destruction from the Customer Perspective. *Serv. Ind. J.* **2021**, *41*, 900–925. [\[CrossRef\]](#)
33. Vargo, R.F.L.; Stephen, L. *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*; Routledge: New York, NY, USA, 2014; ISBN 0765614901.
34. Tsai, C.-Y.D.; Wu, S.-H.; Huang, S.C.-T. From Mandatory to Voluntary: Consumer Cooperation and Citizenship Behaviour. *Serv. Ind. J.* **2017**, *37*, 521–543. [\[CrossRef\]](#)
35. Arnould, E.; Price, L.; Malshe, A. *The Service-Dominant Logic of Marketing; Toward a Cultural Resource-Based Theory of the Customer*; Routledge: New York, NY, USA, 2006; ISBN 9781315699035.

36. Vargo, S.; Lusch, R. Service-Dominant Logic” Continuing the Evolution. *J. Acad. Mark. Sci.* **2008**, *36*, 1–10. [\[CrossRef\]](#)
37. Alves, H.; Ferreira, J.J.; Fernandes, C.I. Customer’s Operant Resources Effects on Co-Creation Activities. *J. Innov. Knowl.* **2016**, *1*, 69–80. [\[CrossRef\]](#)
38. Ho, B.; Murae, Y.; Hara, T.; Okada, Y. Consumer Experience as Suppliers on Value Co-Creation Behavior. *J. Serv.* **2019**, *4*, 1–7. [\[CrossRef\]](#)
39. Yi, Y.; Gong, T. Customer Value Co-Creation Behavior: Scale Development and Validation. *J. Bus. Res.* **2013**, *66*, 1279–1284. [\[CrossRef\]](#)
40. Hughes, T.; Vafeas, M.; Hilton, T. Resource Integration for Co-Creation between Marketing Agencies and Clients. *Eur. J. Mark.* **2018**, *52*, 1329–1354. [\[CrossRef\]](#)
41. Edvardsson, B.; Tronvoll, B.; Gruber, T. Expanding Understanding of Service Exchange and Value Co-Creation: A Social Construction Approach. *J. Acad. Mark. Sci.* **2011**, *39*, 327–339. [\[CrossRef\]](#)
42. Han, H. Consumer Behavior and Environmental Sustainability in Tourism and Hospitality: A Review of Theories, Concepts, and Latest Research. *J. Sustain. Tour.* **2021**, *29*, 1021–1042. [\[CrossRef\]](#)
43. Lusch, R.; Vargo, S.; Tanniru, M. Service, Value Networks and Learning. *J. Acad. Mark. Sci.* **2009**, *38*, 19–31. [\[CrossRef\]](#)
44. Madhavaram, S.; Hunt, S.D. The Service-Dominant Logic and a Hierarchy of Operant Resources: Developing Masterful Operant Resources and Implications for Marketing Strategy. *J. Acad. Mark. Sci.* **2008**, *36*, 67–82. [\[CrossRef\]](#)
45. Prebensen, N.K.; Vittersø, J.; Dahl, T.I. value co-creation significance of tourist resources. *Ann. Tour. Res.* **2013**, *42*, 240–261. [\[CrossRef\]](#)
46. Ng, S.; Sweeney, J.; Plewa, C. Managing Customer Resource Endowments and Deficiencies for Value Cocreation: Complex Relational Services. *J. Serv. Res.* **2018**, *22*, 109467051881219. [\[CrossRef\]](#)
47. Frempong, J.; Chai, J.; Ampaw, E.M.; Amofah, D.O.; Ansong, K.W. The Relationship among Customer Operant Resources, Online Value Co-Creation and Electronic-Word-of-Mouth in Solid Waste Management Marketing. *J. Clean. Prod.* **2020**, *248*, 119228. [\[CrossRef\]](#)
48. Zauner, A.; Koller, M.; Hatak, I. Customer Perceived Value—Conceptualization and Avenues for Future Research. *Cogent Psychol.* **2015**, *2*, 1061782. [\[CrossRef\]](#)
49. Sánchez, J.; Callarisa, L.; Rodríguez, R.M.; Moliner, M.A. Perceived Value of the Purchase of a Tourism Product. *Tour. Manag.* **2006**, *27*, 394–409. [\[CrossRef\]](#)
50. Vargo, S.; Lusch, R. It’s All B2B. .and beyond: Toward a Systems Perspective of the Market. *Ind. Mark. Manag.* **2011**, *40*, 181–187. [\[CrossRef\]](#)
51. Sørensen, F.; Jensen, J.F. Value Creation and Knowledge Development in Tourism Experience Encounters. *Tour. Manag.* **2015**, *46*, 336–346. [\[CrossRef\]](#)
52. Deng, W.; Lu, C.; Lin, Y.; Chen, W. A Study on the Effect of Tourists Value Co-Creation on the Perceived Value of Souvenirs: Mediating Role of Psychological Ownership and Authenticity. *Asia Pac. J. Tour. Res.* **2021**, *26*, 200–214. [\[CrossRef\]](#)
53. Xie, J.; Tkaczynski, A.; Prebensen, N.K. Human Value Co-Creation Behavior in Tourism: Insight from an Australian Whale Watching Experience. *Tour. Manag. Perspect.* **2020**, *35*, 100709. [\[CrossRef\]](#)
54. Xiao, M.; Ma, Q.; Li, M. The Impact of Customer Resources on Customer Value in Co-Creation: The Multiple Mediating Effects. *J. Contemp. Mark. Sci.* **2020**, *3*, 33–56. [\[CrossRef\]](#)
55. Cao, L.; Xie, D.; Qu, Y. A Process Perspective on Experience Co-Creation: How Pre-Trip Involvement Prompts Destination Loyalty. *Tour. Manag.* **2023**, *96*, 104711. [\[CrossRef\]](#)
56. Xu, F.; Tan, J.; Lu, L.; Li, S.; Qin, L. How Does Value Co-Creation Behavior Affect Destination Loyalty? A Role Switching Perspective. *J. Theor. Appl. Electron. Commer. Res.* **2021**, *16*, 1805–1826. [\[CrossRef\]](#)
57. Cheng, J.-C.; Luo, S.-J.; Yen, C.-H.; Yang, Y.-F. Brand Attachment and Customer Citizenship Behaviors. *Serv. Ind. J.* **2016**, *36*, 263–277. [\[CrossRef\]](#)
58. Carlson, J.; Wyllie, J.; Rahman, M.M.; Voola, R. Enhancing Brand Relationship Performance through Customer Participation and Value Creation in Social Media Brand Communities. *J. Retail. Consum. Serv.* **2019**, *50*, 333–341. [\[CrossRef\]](#)
59. Sánchez-Fernández, R.; Jiménez-Castillo, D. How Social Media Influencers Affect Behavioural Intentions towards Recommended Brands: The Role of Emotional Attachment and Information Value. *J. Mark. Manag.* **2021**, *37*, 1123–1147. [\[CrossRef\]](#)
60. Muñoz, J.; Albert, M.; O’Guinn, T. Brand Community. *J. Consum. Res.* **2001**, *27*, 412–432. [\[CrossRef\]](#)
61. Garner, B.; Thornton, C.; Luo Pawluk, A.; Mora Cortez, R.; Johnston, W.; Ayala, C. Utilizing Text-Mining to Explore Consumer Happiness within Tourism Destinations. *J. Bus. Res.* **2022**, *139*, 1366–1377. [\[CrossRef\]](#)
62. Cummings, J.L.; Teng, B.-S. Transferring R&D Knowledge: The Key Factors Affecting Knowledge Transfer Success. *J. Eng. Technol. Manag.* **2003**, *20*, 39–68. [\[CrossRef\]](#)
63. Zach, F.J.; Hill, T.L. Network, Knowledge and Relationship Impacts on Innovation in Tourism Destinations. *Tour. Manag.* **2017**, *62*, 196–207. [\[CrossRef\]](#)
64. Rahardja, U.; Hongsuchon, T.; Hariguna, T.; Ruangkanjanases, A. Understanding Impact Sustainable Intention of S-Commerce Activities: The Role of Customer Experiences, Perceived Value, and Mediation of Relationship Quality. *Sustainability* **2021**, *13*, 11492. [\[CrossRef\]](#)
65. Wang, X.; Wong, Y.D.; Teo, C.-C.; Yuen, K.F. A Critical Review on Value Co-Creation: Towards a Contingency Framework and Research Agenda. *J. Serv. Theory Pract.* **2019**, *29*, 165–188. [\[CrossRef\]](#)

66. Bergendahl, M.; Magnusson, M. Creating Ideas for Innovation: Effects of Organizational Distance on Knowledge Creation Processes. *Creat. Innov. Manag.* **2015**, *24*, 87–101. [\[CrossRef\]](#)
67. Chen, C. The Effect of Leader Knowledge Hiding on Employee Voice Behavior—The Role of Leader-Member Exchange and Knowledge Distance. *Open J. Soc. Sci.* **2020**, *8*, 69. [\[CrossRef\]](#)
68. Järvi, H.; Keränen, J.; Ritala, P.; Vilko, J. Value Co-Destruction in Hotel Services: Exploring the Misalignment of Cognitive Scripts among Customers and Providers. *Tour. Manag.* **2020**, *77*, 104030. [\[CrossRef\]](#)
69. Zeng, X.; Agarwal, J.; Mourali, M. A Resource-Based Perspective on Customer Engagement Behaviors: A Typology, Conceptual Framework, and Research Avenues. *AMS Rev.* **2023**. [\[CrossRef\]](#)
70. Mele, C.; Russo Spena, T.; Colurcio, M. Co-creating Value Innovation through Resource Integration. *Int. J. Qual. Serv. Sci.* **2010**, *2*, 60–78. [\[CrossRef\]](#)
71. Ge, B.; Dong, B. Resource Integration Process and Venture Performance: Based on the Contingency Model of Resource Integration Capability. In Proceedings of the 2008 International Conference on Management Science and Engineering 15th Annual Conference Proceedings, Long Beach, CA, USA, 10–12 September 2008; pp. 291–297. [\[CrossRef\]](#)
72. Tang, T.-W.; Zhang, P.; Lu, Y.; Wang, T.-C.; Tsai, C.-L. The Effect of Tourism Core Competence on Entrepreneurial Orientation and Service Innovation Performance in Tourism Small and Medium Enterprises. *Asia Pac. J. Tour. Res.* **2020**, *25*, 89–100. [\[CrossRef\]](#)
73. Chatterjee, S.; Chaudhuri, R.; González, V.I.; Kumar, A.; Singh, S.K. Resource Integration and Dynamic Capability of Frontline Employee during COVID-19 Pandemic: From Value Creation and Engineering Management Perspectives. *Technol. Forecast. Soc. Chang.* **2022**, *176*, 121446. [\[CrossRef\]](#)
74. Tortoriello, M. The Social Underpinnings of Absorptive Capacity: The Moderating Effects of Structural Holes on Innovation Generation Based on External Knowledge. *Strateg. Manag. J.* **2015**, *36*, 586–597. [\[CrossRef\]](#)
75. Vafeas, M.; Hughes, T. Resource Integration: Adopting a Paradox Perspective to Inform the Management of Tensions in Customer Resource Allocation. *Ind. Mark. Manag.* **2020**, *91*, 596–609. [\[CrossRef\]](#)
76. Ross, D.; Saxena, G.; Correia, F.; Deutz, P. Archaeological Tourism: A Creative Approach. *Ann. Tour. Res.* **2017**, *67*, 37–47. [\[CrossRef\]](#)
77. Baron, S.; Warnaby, G. Individual Customers' Use and Integration of Resources: Empirical Findings and Organizational Implications in the Context of Value Co-Creation. *Ind. Mark. Manag.* **2011**, *40*, 211–218. [\[CrossRef\]](#)
78. Boksberger, P.E.; Melsen, L. Perceived Value: A Critical Examination of Definitions, Concepts and Measures for the Service Industry. *J. Serv. Mark.* **2011**, *25*, 229–240. [\[CrossRef\]](#)
79. Ruan, W.-Q.; Deng, F.; Zhang, S.-N.; Zhou, Y. Negative Tourism Rumors towards User Online Citizenship Behavior: The Differential Influence of Correction Sources. *Tour. Rev.* **2023**. *ahead-of-print*. [\[CrossRef\]](#)
80. Podsakoff, P.; MacKenzie, S.; Lee, J.-Y.; Podsakoff, N. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [\[CrossRef\]](#) [\[PubMed\]](#)
81. Bagozzi, R.P.; Yi, Y. On the Evaluation of Structural Equation Models. *JAMS* **1988**, *16*, 74–94. [\[CrossRef\]](#)
82. Fornell, C.; Larcker, D.F. Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *J. Mark. Res.* **1981**, *18*, 382. [\[CrossRef\]](#)
83. Baron, R.M.; Kenny, D.A. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *J. Pers. Soc. Psychol.* **1986**, *51*, 1173–1182. [\[CrossRef\]](#)
84. Hayes, A. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*; The Guilford Press: New York, NY, USA, 2013; ISBN 9781462549030.
85. Zhuo, F.; Yuan, L. The Impact of Knowledge Distance on Turnover Intention of Millennial Employees: From the Perspective of Mianzi. *J. Knowl. Manag.* **2022**, *26*, 2558–2578. [\[CrossRef\]](#)
86. Liu, J.S.; Tsaur, S.-H. We Are in the Same Boat: Tourist Citizenship Behaviors. *Tour. Manag.* **2014**, *42*, 88–100. [\[CrossRef\]](#)
87. Tung, V.W.S.; Chen, P.J.; Schuckert, M.R. Managing Customer Citizenship Behaviour: The Moderating Roles of Employee Responsiveness and Organizational Reassurance. *Tour. Manag.* **2017**, *59*, 23–35. [\[CrossRef\]](#)
88. Jiang, Y.; Balaji, M.S.; Jha, S. Together We Tango: Value Facilitation and Customer Participation in Airbnb. *Int. J. Hosp. Manag.* **2019**, *82*, 169–180. [\[CrossRef\]](#)
89. Moise, M.S.; Gil-Saura, I.; Ruiz-Molina, M.-E. Implications of Value Co-Creation in Green Hotels: The Moderating Effect of Trip Purpose and Generational Cohort. *Sustainability* **2020**, *12*, 9866. [\[CrossRef\]](#)
90. Luo, J.; Wong, I.A.; King, B.; Liu, M.T.; Huang, G. Co-Creation and Co-Destruction of Service Quality through Customer-to-Customer Interactions: Why Prior Experience Matters. *Int. J. Contemp. Hosp. Manag.* **2019**, *31*, 1309–1329. [\[CrossRef\]](#)
91. Echeverri, P.; Skålén, P. Value Co-Destruction: Review and Conceptualization of Interactive Value Formation. *Mark. Theory* **2021**, *21*, 147059312098339. [\[CrossRef\]](#)
92. Torres-Moraga, E.; Rodríguez-Sánchez, C.; Sancho-Esper, F. Understanding Tourist Citizenship Behavior at the Destination Level. *J. Hosp. Tour. Manag.* **2021**, *49*, 592–600. [\[CrossRef\]](#)

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.