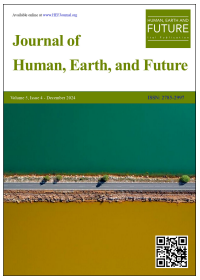
Available online at www.HEFJournal.org

ISSN: 2785-2997

Journal of
Human, Earth, and Future

Vol. 5, No. 4, December, 2024



Tourism Perceptions and Subjective Well-Being: Insights from GIAHS Sites

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Received 13 September 2024; Revised 12 November 2024; Accepted 19 November 2024; Published 01 December 2024

Abstract

The subjective well-being (SWB) of residents serves as a crucial measure of social harmony. This study applied the cognition-affection-behavior theory to investigate how tourism perceptions influence residents' SWB while also assessing the intermediary roles of emotional solidarity (ES) and resident-tourist value co-creation (RVC). Researchers collected 411 valid survey responses from residents in GIAHS and utilized Structural Equation Modeling path analysis and bootstrapping method to test the proposed hypotheses. The results indicate that benefit perceptions positively impact residents' SWB, with ES and RVC serving as sequential mediators in this relationship. In GIAHS, improving residents' perception of benefits can foster ES and RVC, creating a connection between residents and tourists and ultimately enhancing residents' SWB.

Keywords: Residents' Subjective Well-Being; Resident-Tourist Value Co-Creation; Tourism Perceptions; Emotional Solidarity.

1. Introduction

The subjective well-being (SWB) of residents serves as a crucial measure of social harmony [1]. Enhancing SWB has emerged as a central focus in both public policy initiatives and tourism research [2]. Since tourism activities within a destination can generate both beneficial and adverse effects, residents' SWB is likely shaped by how they perceive these impacts [3]. Prior studies have identified a two-way connection between residents' perceptions of tourism and SWB in their communities [4]. However, these studies were primarily concentrated on determining the elements that shape residents' perceptions of tourism, leaving a gap in empirical research concerned with the connection between tourism perceptions and SWB [5].

The cognition-affection-behavior theory suggests that cognitive processes are fundamental to emotional reactions and behavioral inclinations, significantly shaping the development and expression of emotions [6]. Tourism fundamentally involves interactions between tourists and residents [7]. These interactions foster emotional connections, which potentially end in emotional solidarity (ES) that may act as a bridge between residents' perceptions of tourism and SWB. Since Woosnam and Norman introduced the concept of ES in tourism research (2009), scholars have explored the effects

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http://dx.doi.org/10. 28991/HEF-2024-05-04-06

of factors such as community attachment [8] and the distance from the origin of traveling to the destination [9] on ES. Some research has also investigated how ES affects outcomes like perceived safety at the destination [10] and traveler loyalty [11]. Although there have been studies examining the connections between residents' tourism perceptions and ES [12], as well as between ES and well-being [13], a deficiency exists in empirical studies examining the mediating role of ES between tourism perceptions and SWB.

Scholarly investigations into value co-creation within the tourism sector have predominantly concentrated on the dynamics of interactions between "tourists and businesses" [14] and the interactions among "tourists themselves" [15]. Although scholars recognize that value co-creation should include various partakers, including tourists, residents, government bodies, and related supporting enterprises, the involvement of residents is frequently neglected. The investigation into resident-tourist value co-creation (RVC) remains in the initial phase of development [16]. Current research has shown that residents' perceptions of the economic and sociocultural benefits exert a positive impact on RVC [16]. Additionally, Chen et al. (2020) [17] proposed that the "value" derived from residents' engagement in value co-creation lies in the increased happiness experienced through assisting tourists, highlighting the positive influence of RVC on SWB. Thus, when examining the link between tourism perceptions and SWB, RVC should also be considered [17]. However, there exists a deficiency in the literature concerning the intermediary function of RVC in connecting tourism perceptions with SWB.

According to the cognition-affection-behavior theory, emotions serve as an important link between cognition and behavior [18]. This framework suggests that a person's external environment can shape their attitudes, which in turn can forecast behaviors based on established attitudes and intentions [19]. Although Lan et al. (2021) [12] have emphasized the key role of ES in mediating the connection between residents' perceptions of tourism and RVC, there remains insufficient empirical research focused on investigating the sequential mediating effects of ES and RVC on tourism perceptions and SWB. Therefore, additional empirical research is required to validate these chain-mediation effects.

This study derives a comprehensive theoretical framework by synthesizing cognitive-emotional-behavioral theories and examining the multiple mediating effects of ES and RVC. Residents' perceptions of tourism impact trigger affective responses through ES, and these responses are subsequently mediated by active engagement in RVC, ultimately influencing SWB. In this process, cognition lays the groundwork, ES establishes the psychological bond, and RVC provides the behavioral and interactive pathways towards formation of SWB. This framework underscores that the formation of residents' SWB is not the outcome of a singular factor, but rather a product of intertwined cognitive, emotional, and social interactions. This intricate dynamic relationship enhances our understanding of how tourism affects residents and clarifies the mechanism by which SWB is formed. Furthermore, by exploring the relationship between residents' perceptions and SWB at the specific GIAHS sites, this study helps fill the research gap in this particular context, thereby offering a theoretical foundation for policy formulation and the design of tourism initiatives.

The study will progress through a structured format, encompassing literature review and formulation of hypotheses, research design, analysis results, discussion and conclusion, as depicted in Figure 1.

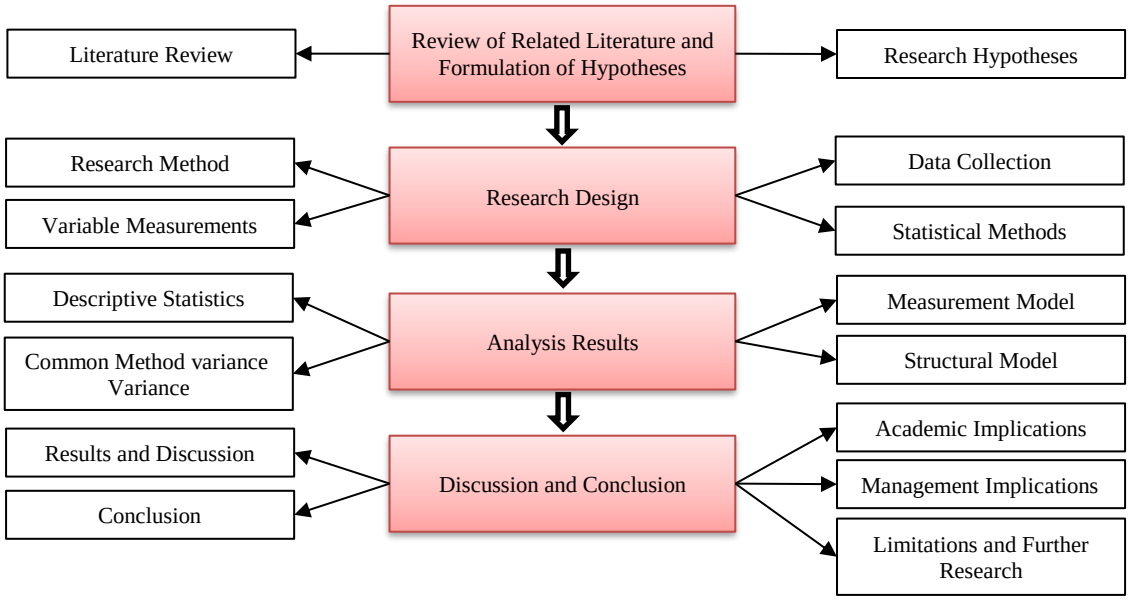

Figure 1. Flowchart of the research methodology

2. Review of Related Literature and Formulation of Hypotheses

2.1. Subjective Well-Being

SWB stands for a person's thoughts and evaluation of their life [20]. SWB includes both cognitive and emotional components [21]. Cognition refers to an individuals' comprehensive assessment of their quality of life according to the criteria of their choice. The emotional component includes both adverse emotional states (such as depression, tension, and anxiety) and favorable emotions (such as happiness and pleasure) that may emerge from the context, reflecting an individual's continuous evaluation of their living conditions [22]. In tourism research, resident SWB is a vital supporting factor for tourism development [6]. Residents experiencing high levels of SWB or life satisfaction tend to engage with visitors and actively facilitate value co-creation [16].

2.2. Resident-Tourist Value Co-Creation

Value co-creation is defined as a progression of interchanging resources, where communication serves a pivotal role in enabling the efficient transfer of resources among participants, ultimately leading to the collaborative generation of value [23]. Shale et al. (2023) [24] highlighted that tourists actively endeavor to have authentic experiences by engaging in meaningful interactions with original inhabitants. According to Lin et al. (2017) [16], RVC is a higher experiential value created for tourists by residents interacting with them. Productive interactions between residents and tourists can elevate tourists' perceived value and foster the development of RVC. Conversely, resistance by residents to tourists can undermine the value of the experience for tourists, hindering the potential for value co-creation [12].

2.3. Emotional Solidarity

ES represents the bond that develops among persons or groups within a specific context [25], marked by feelings of intimacy and connection [26]. According to Woosnam & Norman (2009) [27], there are three main elements of ES: a welcoming attitude, emotional closeness, and sympathetic understanding. A welcoming attitude indicates that residents are supportive and welcoming to the arrival of tourists and acknowledge the advantages of tourism development in their area [27]. Emotional closeness reflects the quality of social relationships between hosts and visitors [28]. Sympathetic understanding involves the compassion that residents and tourists have for one another [27].

2.4. Residents' Perceptions of Benefit-cost and SWB

Cognition-affection-behavior theory posits that cognitive processes are essential in triggering and influencing emotions [19]. As a result, the opinions of residents concerning the beneficial and detrimental impacts of tourism may affect their SWB. Gürsoy & Rutherford (2004) [29] described residents' subjective views of positive effects as benefit perceptions and negative effects as cost perceptions. Both can be specified from the viewpoints of economic, sociocultural, and environmental dimensions [30].

The perceived benefits of tourism among residents can positively impact their SWB [6]. Economically, tourism serves as an effective means of enhancing local fiscal revenue and increasing residents' personal living standards [31]. Socioculturally, tourism can facilitate cultural exchanges between residents and visitors [32]. Environmentally, tourism raises awareness among residents about the need to protect natural resources [33]. When residents recognize the advantages of tourism development across economic, sociocultural, and environmental dimensions, they tend to feel more pride and experience enhanced SWB.

However, the perceived costs of tourism among residents can negatively affect their SWB [34]. Rising prices negatively impact the economy, which, in turn, increases residents' living costs [11]. Negative sociocultural effects can manifest in various ways, including a potential impact on traditional culture, an increase in crime rates, and changes in residents' lifestyles [29]. Negative environmental effects include traffic congestion, noise pollution, harm to wildlife and environmental degradation [35]. When residents face these economic, sociocultural, and environmental challenges linked to tourism, their SWB will likely diminish. Therefore, hypotheses H1a and H1b were formulated to reflect the distinct positive and negative effects of perceived tourism benefits and costs on residents' SWB.

H1a: benefit perceptions are positively linked to residents' SWB.

H1b: cost perceptions are negatively linked to residents' SWB.

2.5. Mediating Role of ES

Tourists can significantly affect the everyday lives of local inhabitants [28]. Residents who have a favorable view of tourism tend to interact more with tourists and form friendly bonds with them. However, those who hold negative views

about tourism are more likely to resist or harbor resentment towards tourists [36]. Research conducted by Lan et al. (2021) [12] found that residents' perceptions of the benefits of tourism were positively correlated with ES, while their perceptions of the costs were negatively correlated with ES. Thus, ES serves as a measurable indicator of the emotional exchange between residents and visitors, shaped by the residents' views on tourism [12].

The positive impact of ES between residents and tourists at GIAHS tourist sites on residents' SWB is evident [13]. Residents who share stronger emotional bonds with tourists tend to engage more in tourism activities and report higher life satisfaction [37]. Furthermore, residents' sympathetic understanding of tourists fosters long-lasting, stable relationships between hosts and visitors, enhancing their enthusiasm for tourism and overall well-being [38]. Therefore, it can be concluded that perceptions of benefits strengthen the affective solidarity between hosts and tourists in tourist destinations, leading to enhanced SWB. On the other hand, perceptions of costs can weaken ES, resulting in lower SWB. Based on this analysis, hypotheses H2a and H2b are proposed.

H2a: ES serves as a mediator linking benefit perceptions to SWB.

H2b: ES serves as a mediator linking cost perceptions to SWB.

2.6. Mediating Role of RVC

Residents are essential to the development of tourism, as their actions impact tourists' experiences and the value the tourists perceive [39]. Residents' perceptions of tourism significantly affect their attitudes towards visitors and their willingness to participate in creating tourism value. When residents perceive the benefits of tourism as outweighing its drawbacks, they are more inclined to participate in tourism-related endeavors, adopt positive attitudes and behaviors towards tourists, and enjoy enhanced well-being while hosting them. Conversely, residents may also hold mixed or negative feelings about tourism and tourists [40]. Studies have shown that perceived benefits significantly enhance RVC, whereas perceived costs exert a notably adverse influence [16].

Additionally, involving residents in collaborative value creation with tourists, such as providing assistance and sharing information about nearby attractions, can positively influence their SWB [17]. When individuals feel content with their social interactions, their SWB tends to improve [41]. Increasing evidence shows that participation in tourism activities and initiatives can boost both living standards and the overall well-being of residents. Building on this previous research, this study posits that the perception of benefits encourages RVC, which in turn enhances residents' SWB [42]. Conversely, the perception of costs hinders RVC, leading to a decrease in residents' SWB. As a result, hypotheses H3a and H3b have been formulated.

H3a: RVC serves as a mediator linking benefit perceptions to SWB.

H3b: RVC serves as a mediator linking cost perceptions to SWB.

2.7. Multiple Mediating Role of ES and RVC

The cognition-affection-behavior theory posits that emotions are essential in influencing behavior, serving as a link between thought cognition and behavioral activity [18]. Research indicates that the ES between native residents and visitors at tourist destinations significantly affects residents' views on tourism development and their readiness to participate in RVC [43]. A stronger ES between hosts and guests is associated with greater support for tourism [44]. Furthermore, Lan et al. (2021) [12] found that ES positively impacts RVC and acts as a mediator in linking tourism perceptions and RVC. When residents recognize greater benefits from tourism, they tend to enjoy more close-knit and more frequent engagement with tourists. Thus, it can be inferred that residents' perceptions of tourism shape the ES between native residents and visitors, which subsequently influences RVC and SWB. As a result, the following hypotheses (H4a and H4b) are put forward:

H4a: ES and RVC act as continuous mediators linking benefit perceptions to SWB.

H4b: ES and RVC act as continuous mediators linking cost perceptions to SWB.

Figure 2 shows the research model and hypotheses.

3. Research Design

3.1. Research Method

Methods are to scientific research as tools are to craftsmen, and the importance of methods is evident in the well-known statement that “the most valuable knowledge is knowledge of methods” [45]. There are many methods and tools in the world, and just as there is a need to choose the appropriate tool for the task at hand, it is also necessary to choose the right method for the research topic and research objectives.

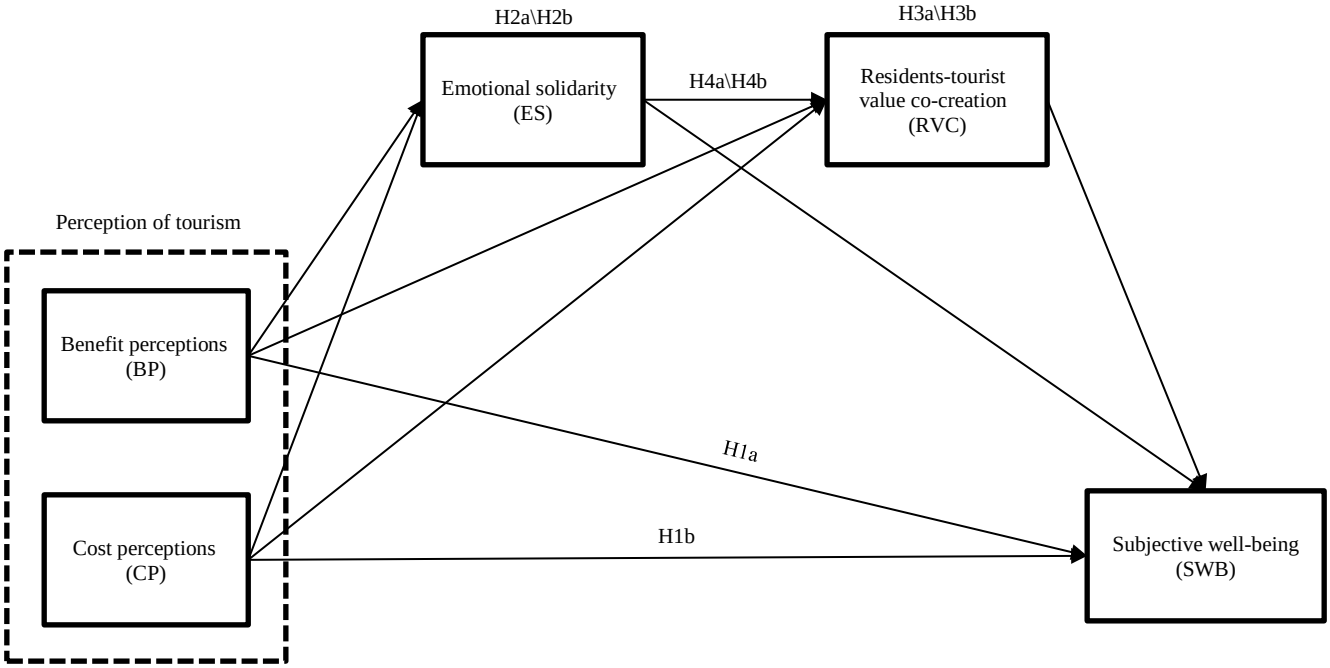

Figure 2. Framework for Analyzing SWB in Tourism Context

Quantitative research is a key methodology in social science research. This type of research employs data and statistical techniques to analyze the "quantity" of various elements, aiming to understand their nature [46]. It focuses on revealing the basic characteristics of things themselves in terms of quantitative relations, i.e., explaining the status quo, categories, and internal relations among things through precise data collection, so as to make ambiguous and uncertain social phenomena clear and certain. Social science research encompasses various approaches, methods, and techniques, which are often categorized into two main paradigms: quantitative and qualitative research. Quantitative research exemplifies positivist methodology and follows a logical process that aligns with the hypothetical-deductive approach, emphasizing observational experimentation and empirical data collection. By utilizing hypotheses, it integrates observational and experimental methods with mathematical deduction, focusing on the objectivity and observability of phenomena while highlighting the interconnections or causal relationships between different variables.

Since this investigation seeks to test the causal link between residents' perceptions of tourism and SWB through quantitative data, which fits with the quantitative research method that utilizes quantities to illustrate and explain the problem, this study will adopt the quantitative research method.

3.2. Variable Measurements

The questionnaire was primarily centered on an established maturity scale, following rigorous translation and back-translation methods to maintain the semantic integrity and accuracy of the items. After initial design, multiple revisions were made based on feedback from professors in relevant fields, resulting in the final instrument. It employed a 7-point Likert scale, where higher numbers reflected greater agreement with the item descriptions. A score of 1 signified "strongly disagree," 4 represented a neutral or "average" standpoint, and 7 indicated "strongly agree."

In this study, SWB served as the dependent variable, while perceptions of benefits and costs acted as the independent variables. Additionally, the study included two mediating variables: ES and RVC. To measure SWB, this study employed a scale created by Chen et al. (2020) [17], which consists of three items. The assessment of benefit and cost perceptions drew on the frameworks developed by Wang & Qu (2014) [47] and Chen & Chen (2010) [48], covering three dimensions: economic, sociocultural, and environmental, with an aggregate of 28 measurement items. ES was evaluated through a measurement instrument formulated by Woosnam & Norman (2009) [27], consisting of 10 items that cover three aspects: a welcoming attitude, emotional closeness, and sympathetic understanding. RVC was evaluated using an adapted scale by Xu et al. (2021) [49], specifically tailored for the Chinese context, which includes six items across two dimensions: information sharing and an intention to help.

Gender, age, education level, monthly income, length of residence, and other variables were incorporated into the model as control variables. These variables were considered because previous research demonstrated their varying effects on residents' SWB [50]. Additionally, the control variables may influence perceptions of tourism, ES, and RVC.

3.3. Data Collection

This study concentrated on residents of China's GIAHS. A field questionnaire was administered. For residents who had difficulty understanding and completing the questionnaire, the investigator completed the questionnaire according to the respondents' answers. Out of 600 questionnaires distributed, 550 were completed and returned. After excluding unusable responses, such as pronounced carelessness in selecting answers and inconsistent answers, 411 valid questionnaires were obtained, leading to a usable response rate of 74.73 %.

Table 1. Statistical overview of sample features (n = 411)

Variable	Index	N	Percentage (%)
Gender	Male	226	54.99
	Female	185	45.01
Age	Younger than 18 years old	14	3.41
	18-44 years old	295	71.78
	45-59 years old	89	21.65
	Older than 60 years old	13	3.16
Education level	High school and below (including secondary technical school, technical school)	179	43.55
	College or undergraduate	216	52.55
	Postgraduate and above	16	3.89
Monthly income	3000 and below	145	35.28
	3001-5000	136	33.09
	5001-8000	96	23.36
	More than 8000	34	8.27
Occupation	Government agencies or institutions staff	51	12.41
	Mentor	26	6.33
	Enterprise employees	88	21.41
	Student	39	9.49
	Individual businesses	65	15.82
	Farmer	50	12.17
	Freelancer	44	10.71
	Serviceman	1	0.24
	Retiree	7	1.70
	Others	40	9.73
Length of residence	Under 5 years	103	25.06
	6-10years	64	15.57
	11-15years	47	11.44
	More than 16years	197	47.93

Of the 411 valid questionnaires, 54.99% of participants identified as male, while 45.01% identified as female. The age breakdown was as follows: 3.41% under 18, 71.78% between 18 and 44, 21.65% between 45 and 59, and 3.16% over 60 years old, respectively. Regarding education, 43.55% had a high school education or below, 52.55% held a college or bachelor's degree, and 3.89% had a graduate degree or higher. Income distribution revealed that 35.28% earned 3,000 yuan or less per month, 33.09% earned between 3,001 and 5,000 yuan, 23.36% earned between 5,001 and 8,000 yuan, and 8.27% earned over 8,000 yuan. The participants were distributed across various occupations, with 12.41% government or public institution staff, 6.33% mentors, 21.41% enterprise employees, 9.49% students, 15.82% private businesses, 12.17% farmers, 10.71% freelancers, 0.24% military personnel, 1.70% retirees, and 9.73% classified as other occupations. The majority of respondents (47.93%) had resided in GIAHS for over 16 years. Table 1 presents the details.

3.4. Statistical Methods

Structural Equation Modeling was conducted using SPSS 22.0 and Mplus 8.3 software to evaluate the hypotheses. Following the guidelines of Anderson & Gerbing (1988) [51], the reliability and validity of the measurement model were

initially examined through a confirmatory factor analysis (CFA), after which the structural model was analyzed using latent variable path analysis to test the hypotheses.

4. Analysis Results

4.1. Descriptive Statistics

Descriptive statistics of 411 valid responses were analyzed using SPSS 22.0. According to the classification in Table 1, an F-test was used to verify the influence of gender, age, educational level, occupation, monthly income, and length of residence on each construct variable. The results show that the gender differences of the residents significantly affected RVC (F = 4.34, P = 0.04) and SWB (F = 7.84, P = 0.01). Age differences among residents significantly affected cost perceptions (F = 4.97, P = 0.002), RVC (F = 3.66, P = 0.01), and SWB (F = 4.80, P = 0.003). Differences in residents' education levels had no significant effect on each construct; the difference in occupation had a significant influence on cost perceptions (F = 2.06, P = 0.03) and ES (F = 2.89, P = 0.003). The difference in residents' monthly income exerted a substantial influence on ES (F = 6.34, P = 0.000), and the difference in length of residence significantly affected cost perceptions (F = 3.77, P = 0.01). Therefore, in the subsequent analysis, these demographic variables were incorporated into the model as control variables. Table 2 presents the CR, convergent validity, discriminant validity, and correlation coefficients for all variables.

4.2. Common Method Variance

Since the questionnaire responses came solely from the residents, the concerns may be raised about common method variance. To assess this variance, Harman's single-factor test was applied [52]. A CFA was carried out to assess the goodness-of-fit metrics for comparing the single-factor and the measurement model. All items displayed loadings on a latent common method variance factor, in addition to their respective theoretical constructs. The results indicated that the single-factor model had a χ^2 value of 14,019.94 with 1034 degrees of freedom, while the measurement model had a χ^2 value of 3016.55 with 1013 degrees of freedom. A notable disparity was observed (P = 0.000) between the measurement and single-factor models, suggesting that the measurement model was more effective than the single-factor model. Therefore, this study did not encounter significant issues with common method variance.

Table 2. Matrix of Composite Reliability, Convergent Validity, Discriminant Validity, and Correlation Coefficients

Variable	MEAN	SD	1	2	3	4	5	6	7	8	9	10	11
1 SWB	5.60	1.11	**0.93**										
2 BP	5.59	1.06	0.73***	**0.89**									
3 CP	4.38	1.29	-0.07	-0.09	**0.83**								
4 ES	5.30	1.03	0.84***	0.73***	0.02	**0.91**							
5 RVC	5.60	1.07	0.90***	0.73***	-0.09	0.88***	**0.99**						
6 Gender	1.45	0.5	0.14**	0.10	0.03	0.04	0.10*						
7 Age	2.25	0.56	0.18***	0.07	-0.20***	0.10	0.15**	-0.03					
8 Education degree	1.6	0.56	0.02	0.06	0.10*	0.06	0.04	-0.10*	-0.24***				
9 Occupation	4.69	2.59	-0.09	-0.06	-0.05	-0.14**	-0.10*	0.08	0.07	-0.31***			
10 Monthly income	2.05	0.96	0.06	0.13**	0.05	0.22***	0.12*	-0.30***	-0.05	0.36***	-0.30***		
11 Length of residence	2.82	1.27	0.10*	-0.05	-0.13**	-0.01	0.08	0.10	0.24***	-0.01	-0.07	-0.04	
α			0.95	0.90	0.83	0.91	0.96						
CR			0.95	0.92	0.86	0.94	0.99						
AVE			0.86	0.80	0.68	0.83	0.98						

4.3. Measurement Model

Firstly, a higher-order factor analysis was conducted. The research model proposed four higher-order factors: benefit perceptions, cost perceptions, ES, and RVC. These factors were used to examine the interrelationships and influences among the constructs. As in Marsh & Hocevar (1985) [53], the target coefficient T was calculated using first-order and second-order CFA to compare the matching degree of data. The closer the T-value is to 1, the more representative the second-order model is. The calculated target coefficient was 0.90. Therefore, a second-order factor model was selected based on the principle of parsimony.

Secondly, the measurement model was used in conjunction with the moderation test to determine whether the hypothesized model in the present study reached agreement with the observed data. The CFA results show that χ^2 = 3016.55, df = 1013, χ^2/df = 2.98, CFI = 0.92, TLI = 0.91, RMSEA = 0.07, SRMR = 0.07, and the overall measurement

model's fit index satisfied the established criteria [54]. These results suggest a strong alignment between the measurement model and empirical data.

Thirdly, the reliability of each construct within the research model was assessed through Cronbach's alpha and composite reliability (CR) metrics. The reliability of a scale reflects its stability, with values exceeding 0.7 typically deemed acceptable [55]. The scale demonstrated high reliability, with Cronbach's alpha values ranging from 0.83 to 0.96 across both first-order and second-order factors. The composite reliability coefficients ranged between 0.86 and 0.99, which exceeded the established threshold of 0.7.

Finally, the assessment of validity encompassed an evaluation of both convergent and discriminant validity. The standardized factor loadings for all items ranged from 0.67 to 0.96, while the first-order factors varied from 0.57 to 0.99, all exceeding the acceptable minimum of 0.5 [51]. The composite reliability for all constructs was above 0.7 and the average variance extracted (AVE) ranged from 0.68 to 0.98, both being consistently above 0.5. These results suggest that the scale demonstrates strong convergent validity [56]. Discriminant validity evaluates the uniqueness of constructs. Adequate discriminant validity is indicated if the AVE of a specific construct is greater than the square of its correlation coefficient with other constructs; otherwise, it is considered insufficient [56]. The assessment of discriminant validity revealed that all correlation coefficients among the variables were lower than the square roots of the AVE, confirming that each variable exhibited sufficient discriminant validity. The findings are detailed in Table 2.

4.4. Structural Model

Testing for direct effect

Path analysis was performed to investigate the associations between the variables, thereby assessing the research hypotheses put forth in this study. The results show that $\chi^2 = 3421.62$, df = 1289, $\chi^2/df = 2.65$, CFI = 0.91, TLI = 0.91, RMSEA = 0.06, and SRMR = 0.08, demonstrating a robust alignment of the structural model with the data [54]. Table 3 summarizes the hypothesis test results. Benefit perceptions exerted a positive and significant influence on SWB (β = 0.13**, t = 3.12). Thus, H1a is supported. Cost perceptions did not have a significant negative effect on SWB (β = 0.01, t = 0.18), so H1b is unsupported.

Furthermore, the researchers examined how perceptions of economic, sociocultural, and environmental benefits influence SWB. The results indicated that perceptions of economic benefits (β = 0.133, P = 0.032), sociocultural benefits (β = 0.248, P = 0.009), and environmental benefits (β = 0.338, P = 0.000) all significantly and positively affected SWB.

Table 3. Path Coefficient for Main Effects

Hypothesis	Estimate	S.E.	Est./S.E.	Result
H1a: BP → SWB	0.13**	0.04	3.12	Support
H1b: CP → SWB	0.01	0.03	0.18	Not
BP → ES	0.74***	0.03	26.61	
CP → ES	0.08*	0.04	2.03	
BP → RVC	0.15**	0.05	2.98	
CP → RVC	-0.08**	0.03	-2.82	
ES → RVC	0.77***	0.05	15.93	
ES → SWB	0.23**	0.07	3.13	
RVC→SWB	0.60***	0.07	8.93	

N = 411. *p < 0.05, **p < 0.01, ***p < 0.001. BP = benefit perceptions; CP = cost perceptions.

Testing for mediating effects

The mediating effect was examined using the bootstrapping technique, with the findings detailed in Table 4. ES did not demonstrate any significant mediating effects on the link between benefit perceptions and SWB, or on the relationship between cost perceptions and SWB. The 95% bootstrap confidence intervals (CI) for H2a and H2b are (-0.01, 0.40) and (-0.01, 0.10), respectively, and include 0, suggesting that H2a and H2b did not achieve statistical significance. However, the analysis results reveal that RVC significantly mediated the association between benefit perceptions and SWB, along with the connection between cost perceptions and SWB. The indirect effects for hypotheses H3a and H3b are 0.09 and -0.10, respectively, with 95% bootstrap confidence intervals of (0.01, 0.25) and (-0.21, -0.02). The results indicate that both H3a and H3b are statistically validated, as their confidence intervals do not encompass 0.

While ES did not show significant mediating effects in linking benefit perceptions to SWB, it still demonstrated significance in the path of benefit perceptions, ES, RVC, and SWB. The 95% bootstrap confidence interval for this path

was (0.17, 0.46), which excludes 0, indicating that the path was statistically significant. ES indirectly influences SWB by influencing RVC, supporting H4a. However, in the path of cost perceptions → ES → RVC → SWB, the 95% bootstrap confidence interval is (-0.01, 0.17), which includes 0. This result indicates that ES and RVC do not exhibit significant chain-mediating effects on the link between cost perceptions and SWB, thereby leading to the rejection of H4b.

Table 4. Hypothesis Testing: Bootstrap Result (n = 5000)

Hypothesis	Effect	Path	Bootstrap		95% CI		Result
			Estimate	Standard error	Lower	Upper	
	Total effect	BP → SWB	0.69	0.05	0.59	0.80	
	Direct effect	BP → SWB	0.12	0.05	0.03	0.24	
		Total indirect effect	0.57	0.05	0.47	0.67	
H2a		Lnd1: BP →ES→ SWB	0.16	0.11	-0.01	0.40	Not
H3a	Indirect effect	Lnd2: BP→RVC→ SWB	0.09	0.07	0.01	0.25	Support
H4a		Lnd3: BP→ES→RVC→ SWB	0.32	0.08	0.17	0.46	Support
	Total effect	CP → SWB	0.02	0.08	-0.15	0.18	
	Direct effect	CP → SWB	0.01	0.05	-0.08	0.11	
	Indirect effect	Total indirect effect	0.01	0.07	-0.13	0.14	
H2b		Lnd1: CP →ES→ SWB	0.04	0.03	-0.01	0.10	Not
H3b		Lnd2: CP→RVC→ SWB	-0.10	0.05	-0.21	-0.02	Support
H4b		Lnd3: CP→ES→RVC→ SWB	0.07	0.05	-0.01	0.17	Not

BP = Benefit Perceptions; CP = Cost Perceptions.

5. Discussion and Conclusion

5.1. Results and Discussion

This study explored the association between tourism perceptions and residents' SWB, while also validating the multifaceted mediation effects of ES and RVC within this context.

The results show that benefit perceptions significantly enhance residents' SWB (β = 0.13**, t = 3.12). Among the various types of benefits, environmental benefit perceptions had the strongest impact on SWB (β = 0.338, P = 0.000), succeeded by sociocultural benefit perceptions (β = 0.248, P = 0.009) and economic benefit perceptions (β = 0.133, P = 0.032). These results align with those of Ribeiro et al. (2020) [5], which found that both economic and environmental benefit perceptions positively influenced SWB, while social benefit perceptions only affected cognitive well-being, a dimension of SWB, without impacting affective well-being. Additionally, the perception of costs did not significantly detract from residents' SWB (β = 0.01, t = 0.18). Similarly, Chi et al. (2017) [3] observed the perceived negative impacts of tourism on SWB were statistically insignificant, further corroborating the current study's results.

ES did not act as a mediator between benefit perceptions and SWB (β = 0.16, 95% CI = [-0.01, 0.40]) or between cost perceptions and SWB (β = 0.04, 95% CI = [-0.01, 0.10]). These results contrast with Lan et al. (2021) [12], who found a significant mediating role of ES in linking tourism perceptions to RVC. Upon further analysis, this study demonstrated a significant positive effect of ES on SWB, aligning with findings by Wang et al. (2020) [13] and Berbekova et al. (2023) [57], who highlighted that positive emotional connections with tourists are crucial to enhancing residents' SWB. However, the direct link between cost perceptions and SWB in this study was not significant, which may partially explain why ES did not exhibit a strong mediating role. Furthermore, the lack of a robust negative association between cost perceptions and ES may also contribute to this result. Although residents may recognize the costs associated with tourism, subsequent evaluations may not influence their emotional attitudes toward tourists, nor impact SWB. Consequently, despite the lack of a significant mediating role, this study contributes to a deeper understanding of ES within the tourism context.

The role of RVC as a mediator in linking tourism perceptions and SWB was found to be significant. RVC positively mediated the link between benefit perceptions and SWB (β = 0.09, 95% CI = [0.01, 0.25]), while it exerted a negative effect on the link between cost perceptions and SWB (β = -0.10, 95% CI = [-0.21, -0.02]). These findings concur with those reported by Chen et al. (2020) [17], who indicated that perceptions of benefits and costs significantly influence RVC. Residents' views on tourism have an indirect impact on their SWB. The stronger the residents' perceptions of the economic, sociocultural, and environmental benefits brought about by tourism development, the more active they are in the value co-creation of tourism, and the stronger their SWB. When residents perceive that the costs associated with

tourism outweigh its benefits, their willingness to share information and assist tourists decreases. This passivity leads to a weaker contribution to co-creating tourism value, ultimately resulting in lower SWB.

Additionally, ES and RVC consistently served as mediators in linking benefit perceptions to SWB ($\beta = 0.32$, 95% CI = [0.17, 0.46]), whereas their mediating influence on the relationship between cost perceptions and SWB did not reach statistical significance ($\beta = 0.07$, 95% CI = [-0.01, 0.17]). Chen et al.'s (2020) [17] five-factor model also identified support for tourism development and RVC as continuous mediators in the relationship between benefit perceptions and SWB; their roles as sequential mediators in linking cost perceptions to SWB were not validated, aligning with the results of this study. Yet the variables in Chen et al.'s (2020) [17] model were not exactly the same as those in the present study. Thus, this paper's exploration of the sequential mediation effects of ES and RVC on tourism perceptions and SWB constitutes an innovative approach, providing valuable empirical evidence for future research on these mediation mechanisms.

5.2. Conclusion

Drawing on cognition-affection-behavior theory, this study explored the interconnections among tourism perceptions, ES, RVC, and SWB, with a focus on how tourism perceptions, ES, and RVC contribute to the improvement of SWB. The findings provide both empirical evidence and a theoretical framework for understanding how tourism perceptions relate to SWB. The main conclusions derived from this research and analysis are summarized below.

The perception of benefits is strongly and positively linked to residents' SWB, confirming hypothesis H1a. No statistically significant negative association was found between cost perceptions and residents' SWB, indicating that hypothesis H1b is not upheld. ES does not serve as a mediator between benefit perceptions and SWB, nor between cost perceptions and SWB, ultimately resulting in the rejection of hypotheses H2a and H2b. However, RVC does serve as a mediator linking benefit perceptions to SWB, while also connecting cost perceptions to SWB, resulting in supporting hypotheses H3a and H3b. ES and RVC serve as continuous mediators linking benefit perceptions to SWB, thereby supporting hypothesis H4a. In contrast, no such mediation is found between cost perceptions and SWB, leading to the rejection of hypothesis H4b.

5.3. Academic Implications

This study enhances the literature on cognition-affection-behavior theory by illustrating that residents' perceptions of benefits significantly impact SWB, thereby filling a gap in empirical research in this area [37]. Furthermore, this research integrates cognition-affection-behavior theory with value co-creation, emphasizing the vital role of RVC in connecting tourism perceptions to SWB. RVC serves as a positive mediator between benefit perceptions and SWB, while it negatively influences the connection between cost perceptions and SWB. These findings contribute to a deeper comprehension of RVC [16], addressing an existing gap in the empirical literature. Moreover, the study identifies a positive chain-mediated relationship, involving ES and RVC, which links benefit perceptions to SWB. It indicates that tourism not only brings multiple benefits to destinations and residents but also fosters ES and RVC between residents and tourists, ultimately enhancing residents' SWB. This research is among the first to confirm the chain mediation effect of ES and RVC, thus making significant theoretical contributions. It deepens the understanding of how tourism perceptions impact ES, RVC, and SWB and clarifies the mechanisms that improve residents' SWB.

5.4. Management Implications

Firstly, the results show that benefit perceptions positively and indirectly affect SWB through RVC, while cost perceptions indirectly and negatively affect SWB through RVC. Thus, destination tourism enterprises in GIAHS should strive to maximize the benefits of tourism while minimizing the associated costs. This can be achieved through collaboration with residents on various projects, encouraging their active participation in tourism development, and enabling them to derive tangible benefits. By transforming the passive acceptance of residents into active engagement, tourism enterprises can promote positive attitudes among residents and encourage their active involvement in value co-creation. Such means can not only enhance residents' SWB but also improve tourists' experience value, thereby boosting the attractiveness and competitiveness of tourist destinations. However, tourism enterprises should strive to minimize the adverse effects linked to tourism activities. These negative effects may diminish the potential for residents and tourists to co-create value and may even lead residents to express negative emotions toward tourists, thereby resulting in adverse effects on tourism development.

Secondly, as revealed by the results of this paper, RVC serves as a crucial mediator in the connection between tourism perceptions and SWB, suggesting that tourism perceptions can influence SWB indirectly through RVC. Therefore, to achieve sustainable tourism development in GIAHS, it is essential for local tourism developers and management agencies to engage residents and encourage their participation in tourism development initiatives. Additionally, by establishing a stable platform for participation, residents can be guided to explore and integrate tourism elements within GIAHS, enhancing community unity and cohesion. This approach aims to align individual values with the community's overall values, fostering value co-creation and ultimately enhancing the SWB of the residents.

5.5. Limitations and Further Research

Firstly, owing to the limitation of geographical features and survey techniques, data were only gathered from a portion of the GIAHS in China, which may have influenced the empirical findings of the proposed hypotheses. Future research should aim to expand the sample size to minimize the influence of sampling bias. Secondly, this study concentrated on tourism perceptions and SWB, alongside exploring the various mediating roles of ES and RVC in this context. However, potential moderating factors such as residents' personality traits, personal economic advantages, and external influences like the local economy's reliance on tourism were not taken into account. They should be included in future investigations. Finally, understanding of SWB varies at the cultural and regional levels, and its determinants may not be consistent in various cultural settings. Future research could extend the applicability of these results by investigating residents' SWB in different populations or destinations.

6. Declarations

6.1. Author Contributions

Conceptualization, J.Y., S.Z.H., and O.C.; methodology, J.Y. and O.C.; software, J.Y. and S.Z.H.; validation, J.Y., S.Z.H., and O.C.; formal analysis, J.Y., investigation, J.Y., resources, S.Z.H.; data curation, O.C.; writing—original draft preparation, J.Y.; writing—review and editing, S.Z.H. and O.C.; visualization, O.C.; supervision, S.Z.H.; project administration, S.Z.H. and O.C.; funding acquisition, J.Y. All authors have read and agreed to the published version of the manuscript.

6.2. Data Availability Statement

The data presented in this study are available in the article.

6.3. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

6.4. Acknowledgments

All the entities that directly or indirectly supported us when we developed this manuscript are acknowledged.

6.5. Institutional Review Board Statement

Not applicable.

6.6. Informed Consent Statement

Not applicable.

6.7. Declaration of Competing Interest

The authors declare that there are no conflicts of interest concerning the publication of this manuscript. Furthermore, all ethical considerations, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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Appendix I

Table A1. Observed indicators for constructs

Second-order construct	First-order construct	Observed indicator	Reference
Benefit perceptions	Economic benefit perceptions	Tourism development has increased employment opportunities for local residents.	Wang & Qu, 2014; Chen & Chen, 2010
		Tourism development has increased the economic income of local residents.	
		Tourism development has raised the level of life for residents.	
		Tourism development has promoted the development of the local economy.	
		Tourism development has increased the financial income of the local government.	
	Socio-cultural benefit perceptions	Tourism development has improved residents' understanding and cognition of residents about GIAHS.	Wang & Qu, 2014; Chen & Chen, 2010
		Tourism development has promoted residents' protection and utilization in GIAHS.	
		Tourism development has improved the residents' awareness of the protection of agricultural heritage.	
		Tourism development has promoted the development of local culture.	
		Tourism development has increased the social visibility of the area.	
	Environmental benefit perceptions	Tourism development has improved local transportation.	Wang & Qu, 2014; Chen & Chen, 2010
		Tourism development has promoted the construction of infrastructure.	
		Tourism development has promoted the improvement of local sanitation.	
		Tourism development has promoted residents' awareness of environmental protection.	
		Tourism development has improved the living environment of the residents.	
Cost perceptions	Economic cost perceptions	Tourism development has increased the cost of living of residents.	Wang & Qu, 2014; Chen & Chen, 2010
		Tourism development has created an imbalance in the distribution of benefits.	
		Tourism development has caused polarization of residents' incomes.	
		Tourism development has caused the rise of property and land prices.	
	Socio-cultural cost perceptions	Tourism development has interfered with the daily lives of residents.	Wang & Qu, 2014; Chen & Chen, 2010
		Tourism development has reduced the level of trust between residents.	
		The tourism development has destroyed the tranquil living atmosphere of the local area.	
		The tourism development has lowered the safety of the local area.	
		Tourism development has caused an adverse impact on local traditions.	
	Environmental cost perceptions	Tourism development has caused traffic congestion and parking problems.	Wang & Qu, 2014; Chen & Chen, 2010
		Tourism development has increased pollution and aggravated environmental damage.	
		Tourism development has damaged the ecological environment.	
		Tourism development has caused the over-utilization of local tourism resources.	
Emotional solidarity	Emotional closeness	I feel close to some visitors I have met in GIAHS.	Woosnam & Norman, 2009
		I have made friends with some visitors in GIAHS.	
	Sympathetic understanding	I identify with visitors in GIAHS.	Woosnam & Norman (2009)
		I have a lot in common with visitors.	
		I feel affection toward visitors in GIAHS.	
		I understand visitors in GIAHS.	
	Welcoming visitors	I am proud to have visitors come to GIAHS.	Woosnam & Norman (2009)
		I feel the community benefits from having visitors in GIAHS.	
		I appreciate visitors for the contribution they make to the local economy.	
		I treat visitors fair in GIAHS.	
Resident-tourist value co-creation	Information sharing	I am willing to provide tourists with transportation, attractions, restaurants, hotels and other useful information	Xu et al. (2021)
		I am willing to introduce tourists to our way of life, folk customs, traditional history and culture, etc.	
		I am willing to answer tourists' questions about tourism.	
	Helping intention	I am willing to help tourists if they need help.	Xu et al. (2021)
		I am willing to guide tourists who encounter problems and help them solve them.	
		I am willing to give advice to tourists on how to travel here.	
Subjective well-being		Supporting tourists has enriched my life.	Chen et al. (2020)
		I am really glad that I support tourists.	
		I feel good about myself helping tourists.	