RESEARCH ON TOURIST SATISFACTION AND BEHAVIORAL INTENTION IN ECOLOGICAL HEALTH TOURISM ACTIVITIES IN BAMA, GUANGXI BASED ON STRUCTURAL EQUATION MODEL

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Abstract: This study endeavors to delve into the intricacies of tourist contentment and proclivities in the realm of ecological health tourism activities within Bama, Guangxi. An exploration of the intricate structural relationships is undertaken, unraveling the quintet of variables encompassing tourists' engagement in Bama's ecological health tourism - namely, the effects of activities, the experiential facet of activities, the pecuniary dimension of activities, coupled with tourist satisfaction and behavioral intent. Employing the methodological framework of constructing a structural equation model, this study leverages IBM SPSS 23.0 software to execute correlation analyses across various variables, including demographic information statistics, reliability and validity metrics. Survey research orbits around the quintet of variables. The findings illuminate that the experiential tapestry woven by tourists partaking in ecological health tourism activities exerts a conspicuously affirmative influence on both their satisfaction and behavioral intentions. Conversely, the financial investment made by tourists in ecological health tourism activities manifests a counteractive impact on their satisfaction and behavioral intentions. Evidently, heightened tourist activity experiences and diminished costs conduce to the facilitation of tourists' aspirations for individualistic tourism activities, thereby enhancing travel satisfaction and behavioral intent. Nevertheless, the potency of tourists' activity effects on tourist satisfaction remains suboptimal. Consequently, it is proffered that the propagation of health care paradigms be fortified, coupled with the augmentation of activity experience design. Further, the optimization of cost structures and the enhancement of resource utilization efficiency are recommended, alongside ameliorating activity effects and steering behavioral intent. This comprehensive approach is anticipated to immerse tourists more profoundly into the local ethos of longevity culture, thereby fostering the robust and sustainable evolution of longevity tourism in Bama.

Key words: Ecological health tourism; Tourist satisfaction; Activity experience; Behavioral intention

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INTRODUCTION

As the worldwide population elegantly advances, harmonizing with the rapid rhythm of life and escalating professional requisites, there arises an augmented inclination toward a manner of existence that is not only conducive to well-being but also infused with simplicity and felicity. This burgeoning desire has, in turn, precipitated the ascent of wellness tourism, thereby manifesting itself as an avant-garde trajectory in the unfolding narrative of contemporary and prospective tourism development (Michael et al., 2022; Wang et al., 2023).

The burgeoning trend of aging in China is progressively manifesting itself in the demographic landscape. Insights gleaned from the seventh national census reveal a cohort of individuals aged 60 and above, numbering 264.02 million, constituting a substantial 18.7% of the populace. The authoritative declaration encapsulated in the report of the 20th National Congress of the Communist Party of China eloquently articulates a determination to proactively engage with the imperatives of a burgeoning population maturity. It explicitly advocates for the strategic implementation of measures tailored to the burgeoning demographic of the elderly, with a particular emphasis on the cultivation and enhancement of both elder care and the burgeoning geriatric care industry. Amidst the proliferation of environmental pollution, demographic aging, suboptimal health, and sundry other concerns, China's focus on the realm of health tourism steadfastly ascends (Bai and Lei, 2020; Fang et al., 2020)**.** Generally speaking, China's health tourism market has begun to take shape and has now become an important health tourism consumer market in the Asia-Pacific region.

However, compared with the relatively mature health tourism market abroad, the gap still exists.

Health care and recuperation have become a trend in elderly care in today's era and a policy choice to explore healthy elderly care and expand new tourism markets (Majeed and Gon Kim, 2023; Liao et al., 2023). Through various means such as nutritious diet, cultivating the mind and character, maintaining beauty and keeping fit, people can achieve a natural and harmonious state both physically and mentally. Academic research on wellness tourism originated in

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developed countries in Europe and the United States. Different scholars have explored issues related to wellness tourism from different perspectives. Its theoretical basis mainly covers modern health science, welfare economics, tourism sociology, and population geography and other subject knowledge. The research content mainly focuses on the conceptual connotation of health and wellness tourism (Lyulicheva et al., 2023), the health and wellness functions of health and wellness tourism (Sthapit et al., 2023), the dynamic mechanism of health and wellness tourism (Bočkus et al., 2023), the innovative development of health and wellness tourism, and the classification and evaluation of health and wellness tourism resources (Phuthong et al., 2023), spatial flow characteristics of health and wellness tourists (Zhou et al., 2023; Perschke et al., 2023) and other aspects. In aggregate, the extant body of scholarly inquiry pertaining to wellness tourism is notably copious. However, the facet examining tourist satisfaction through the lens of quantitative research remains comparatively deficient and warrants a more robust augmentation.

Bama has earned the distinguished epithets of the "Crucible of Global Longevity" and "Paragon of Longevity in China." Within its environs, the ambient air is enriched with a remarkable concentration of negative oxygen ions, ranging from 20,000 to 50,000 per cubic centimeter at its zenith. The county maintains an average density exceeding 2,000 negative oxygen ions per cubic centimeter, fostering an environment unparalleled in its salubrious attributes. Bama makes full use of the advantages of being the "Land of Longevity" to vigorously develop the health care and elderly care industries (Zhang et al., 2023). According to the design ideas of the "Guangxi Bama Panyang River Basin Health Care, Longevity and Health Industry Development Plan (2012-2020)" issued by the autonomous region government, efforts are made to develop eight series of health care industries. Among these, entities that amalgamate health care and geriatric assistance encompass the sector of health care and elderly care services, as well as the manufacture of products pertinent to health care and elderly care, among other components (Hong et al., 2023; Tan and Zhou, 2022).

A spectrum of ecological health tourism endeavors has beguiled a considerable cadre of enthusiasts. The sentiments and contentment undergone by participants in these pursuits exert a discernible influence on the evaluation of the success of such tourism engagements. Moreover, these factors intricately contribute to the formulation of the behavioral intentions harbored by tourists, delineating their proclivity to revisit in the future. By methodically conducting surveys and research that illuminate the intricate interplay between the foundational sentiments of tourists, their holistic contentment, and the resultant behavioral intentions arising from their participation in tourism activities, we intricately scrutinize and comprehend the evolutionary trajectory of ecological health tourism pursuits in Bama, Guangxi. Subsequently, we proffer insightful recommendations aimed at shaping the future development of ecological health tourism endeavors in this locale.

THEORETICAL BASIS AND RESEARCH HYPOTHESES
1. Tourist activity experience
The experiential assessment of tourists' activities constitutes a comprehensive evaluation of their engagement. It embodies the immediate sensory perception of the costs incurred and benefits derived by tourists during their participation in said activities (Rachao et al., 2020). In other words, tourists' basic feelings about tourist activities are formed during the process of comparing gains and losses based on personal senses and experiences during participating in the activities. In this study, tourists' feelings about activities are composed of three dimensions: activity effect, activity experience and activity cost. Concurrently, tourist satisfaction is utilized as a mediating variable to meticulously examine the intricate interconnection among tourists' experiential sentiments, their levels of contentment, and the ensuing behavioral intentions manifested by the tourists.

2. Tourist satisfaction
Tourist satisfaction serves as an evaluative gauge, encompassing the degree of contentment experienced by tourists with services, amenities, and activities throughout the entirety of their travel or tourism sojourn (Jeong and Kim, 2020; Biswas et al., 2021). It mirrors the holistic impression and qualitative essence of tourists regarding a destination, tourism product, or service. The caliber of tourist satisfaction invariably mirrors the comprehensive efficacy of the tourism industry and exerts an influence on the destination's standing and recurrent visitation rates. Hence, this investigation delves into the analysis of tourist satisfaction, grounded in fundamental management concepts.

From an individual perspective during the implementation of tourism behavior, if tourists' actual tourism "sense of gain" is higher than their expectations for the tourism destination, then tourists' satisfaction is positive, that is, they are satisfied (Jia et al., 2022; Peng et al., 2023). Tourist (customer) satisfaction refers to the result of comparing the cost paid by tourists (customers) for the purchased service or product itself with the benefits obtained from enjoying the service or using the product (Hjalager and Flagestad, 2012; Huang et al., 2022). Tourist satisfaction is the degree to which tourists' actual experience balances their expectations before the implementation of the tourism behavior and what they get after the completion of the tourism behavior during the implementation of the tourism behavior. Tourist satisfaction refers to the degree of pleasure after being satisfied during the travel process. The "expectations" before travel are not included in the study, but it is the difference between the perceived effect and the expected effect (Zhong et al., 2022).

Derived from the foregoing research, it is discernible that tourist satisfaction predominantly gravitates toward the idiosyncratic sentiments forged through the juxtaposition of tourists' pre-travel expectations for the destination and their elemental perceptions subsequent to the sojourn. This phenomenon encapsulates a profound psychological odyssey. Derived from this inquiry, tourist satisfaction embodies a psychological state of contentment or disillusionment cultivated by tourists subsequent to their immersive encounters with ecological health tourism activities. It is plausible to posit that a discernible correlation exists between the experiential milieu of tourists during their travels and the resultant satisfaction or

dissatisfaction they harbor. Grounded in these considerations, three hypotheses are posited, postulating the potential impact of the triad of individual emotional dimensions within tourist activities on the ultimate satisfaction experienced by individual tourists.

(1) The effect and satisfaction of the activity.

During the ecological health tourism activities, tourists watched beautiful performances and felt very professional and considerate services. Comparing tourists' expectations of the activity before participating in the activity with the effect after participating in the activity, the effect was obvious and the mood was pleasant or comfortable, then satisfaction with the activity increases. So, assuming:

H1: The effect of ecological health tourism activities felt by tourists is directly proportional to the individual satisfaction of tourists.

(2) Activity experience and satisfaction.

Bama is located in Guangxi and is rich in natural resources, including magnificent mountains and rivers, clear rivers and virgin forests. Visitors can experience the serenity and beauty of nature here, such as taking part in hiking tours, admiring waterfalls or admiring the verdant vegetation along the way. To develop health activities and wellness experiences, Bama focuses on ecological health care and provides various wellness activities. For example, tourists can participate in activities such as yoga, Tai Chi, and herbal foot soaks, experience traditional Chinese medicine health concepts, and improve physical and mental health. Providing a variety of activities, focusing on service quality, and protecting the natural ecological environment can directly affect tourists' overall satisfaction. So, assuming:

H2: Tourists' individual experience of ecological health tourism activities itself is directly proportional to tourists' individual satisfaction.

(3) Cost and satisfaction of activities.

The cost of tourist activities is an important factor for tourists to consider. If the price of Bama eco-wellness tourism is relatively reasonable and consistent with the services and experiences provided, tourists are more likely to be satisfied. For example, if the cost of a health tea art class includes a professional tea art teacher, a comfortable venue and high-quality equipment, tourists may feel that this is a value-for-money experience. Bama ecological health tourism emphasizes health and wellness activities, such as yoga, Tai Chi, etc. Tourists' satisfaction with these health and wellness activities is closely related to the quality of the activities and the matching with the cost. If the wellness services provided are professional, in-depth, and meet tourists' expectations, they may be more willing to pay the corresponding fees. The tour guide service of Bama ecological health tourism is also an important factor affecting satisfaction. If the tour guide has a high service level and can vividly introduce local culture and history and answer tourists' questions, tourists will be more satisfied with the overall travel experience. This also directly relates to the cost of tourist activities, as tourists may consider whether guided tour services are worth paying for. So, assuming:

H3: The cost tourists spend on ecological health tourism activities is inversely proportional to tourists' individual satisfaction.

3. Tourists' behavioral intention

Tourist behavioral intention refers to an action or behavior trend that tourists take towards tourism products, services or derivative products after the tour and related activities are completed (Hashemi et al., 2023; Li et al., 2023). Tourists' behavioral intentions in Bama ecological health tourism activities are mainly reflected in their willingness to choose the destination again, recommend it to others, and participate in other related activities. By participating in ecological health tourism activities, tourists not only understand the content of ecological health tourism activities, enhance their experience and feelings of the activities, and improve their satisfaction with the activities, but also have a direct impact on their repeated participation in the activities. Then, the higher the tourist's intention to participate in eco-health tourism activities, the greater the possibility of repeated participation, and vice versa. The better the visitor's experience of the activity, the higher the likelihood that they will continue to participate. Consequently, we postulate the ensuing hypothesis, premised upon the potential influence exerted by the three dimensions encapsulating the emotional resonance of tourists' activities on the trajectories of their behavioral intentions.

(1) Activity effects and behavioral intentions. Various activities of ecological health tourism are colorful, including the folk customs of longevity villages, the etiquette and customs of ethnic minorities, the longevity culture and art performances, health yoga, herbal medicine and traditional Chinese medicine health care all provide tourists with a real sensory experience and strengthen the cultural symbols of the hometown of longevity. With good "longevity"-themed activity effects, the possibility of tourists' behavioral intention to participate in ecological health tourism will be enhanced. So, assuming:

H4: The effect of tourists' experience of ecological health tourism activities is directly proportional to tourists' behavioral intentions.

(2) Activity experience and behavioral intention. Tourists can personally feel and experience the fun by participating in various health tourism activities. For example, participating in related health-preserving yoga activities, watching longevity culture and art performances, and experiencing traditional Chinese medicine health-preserving activities not only relaxed the body and mind, but also experienced the activities related to ecological health-preserving tourism. Then, the more profound the tourists' activity experience and the better the sense of experience, the higher their behavioral intention to participate in ecological health tourism activities. So, assuming:

H5: Tourists' experience of ecological health tourism activities is directly proportional to tourists' behavioral intentions.

(3) Activity costs and behavioral intentions. With the diversification of eco-health tourism activities, including longevity product sales, health yoga activities, and health-preserving traditional Chinese medicine cultural experiences, the content of ecological health tourism activities has become more and more abundant. In addition to the form, effect, service level and experience of ecological health tourism activities, tourists are also more concerned about the cost of the activities. For example, the expenditure during the event, whether the location of the event is convenient, whether the surrounding environment is beautiful, and whether the consumer price is reasonable. When tourists' activity costs are low and satisfaction is high, their behavioral intention to participate in the activity again will increase, and vice versa. So, assuming:

H6: The cost of tourists participating in ecological health tourism activities is inversely proportional to tourists' behavioral intentions.

(4) Tourist satisfaction and behavioral intention.

By means of a comprehensive review of the literature, the prevailing consensus among scholars and research findings converges upon the recognition of a noteworthy positive correlation existing between tourist satisfaction and the proclivity toward subsequent behavioral intentions (Tuncer et al., 2021; Tran and Le, 2020). After tourists participate in ecological health tourism activities, their feelings about participating in the activities are greater than their previous expectations, and tourists' satisfaction with participating in ecological health tourism activities will also increase accordingly. The augmentation of activity satisfaction serves to pique the interest of tourists and kindles a predilection for such endeavors, thereby escalating the likelihood of recurrent engagement. Concomitantly, an elevation in tourist satisfaction yields a commensurate rise in behavioral intention. Thus, we posit under the assumption:

H7: Tourist satisfaction is directly proportional to behavioral intention.

4. Research model

Based on the interrelationship between the above variables, it can be seen that this study focused on five variables: the effect of Bama ecological health tourism, activity experience, activity cost, satisfaction and behavioral intention. Among them, the effect, experience and cost of tourist activities are the dependent variables, behavioral intention is the independent variable, and satisfaction is the mediating variable. The theoretical framework is visually represented in Figure 1.
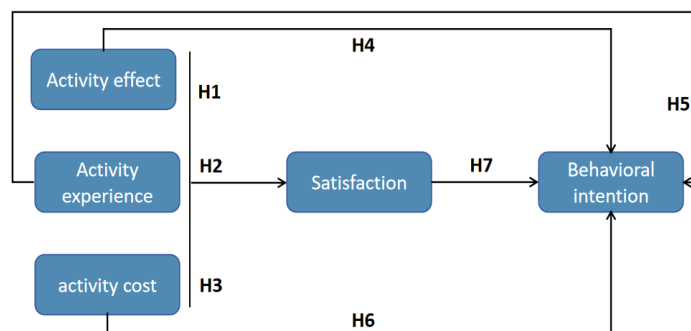

Figure 1. Theoretical research model

DATA COLLECTION AND RESEARCH METHODS

The participants under scrutiny within this investigation comprise individuals engaging in ecological health tourism activities. To collect data, an online questionnaire serves as the instrument of inquiry. In total, 300 questionnaires were disseminated, with 268 subsequently retrieved. Out of this pool, 246 were deemed valid, culminating in a questionnaire validity rate of 91.79%. Based on previous literature and preliminary measurement indicators determined by scholars in their research, the measurement indicators were appropriately modified and improved based on the actual situation of ecological health tourism activities in Bama, Guangxi. The research variables include activity effect, activity experience, activity cost, satisfaction and behavioral intention, with a total of 16 measurement items. Each variable includes multiple measurement items and options, all using Likert's five-point scale. point scale) (Kam, 2020) to ensure the rigor and reliability of the analysis. Using IBM SPSS 23.0 software to conduct correlation analysis between variables such as demographic information statistics, reliability and validity, the following basic data can be obtained.

1. Basic data situation

Through a meticulous analysis of the fundamental information encapsulated in the valid questionnaire data, a discernment emerged regarding the gender composition: men constituted 47.1%, while women comprised 52.9%, resulting in a notably equilibrated gender ratio. Delving into the stratification of age, a breakdown reveals that 24.6% fall within the bracket of 30 to 40 years, 41.8% within 41 to 50 years, and 33.6% surpassing the age of 50. Notably, the focal demographic is concentrated within the age group of 41 to 50 years, commanding a significant majority, as individuals over 40 years of age collectively constitute 75.4% of the study's participants. Regarding educational attainment, 27.5% of participants are currently enrolled in high school, 40.2% pursue college education, 25.3% are pursuing a bachelor's degree, and 7% are enrolled in master's programs. The educational landscape of survey respondents is predominantly characterized by a prevalence of college students. Turning to the dimension of monthly income, 23.1% reported earnings below 3,000 yuan, 38.9% fell within the income bracket of 3,000-5,000 yuan, and 38% boasted incomes surpassing 5,000 yuan. The monthly earnings of the surveyed cohort prominently converged in the

range of 3,000-5,000 yuan, encompassing a substantial 76.9% of the participants earning more than 3,000 yuan.

2. Reliability and validity analysis

In the present investigation, the internal reliability of the questionnaire was assessed utilizing Cronbach's α, a widely employed metric for estimating the reliability of Likert scale-based research. Cronbach's α coefficient, also acknowledged as the internal consistency α coefficient, stands as a preeminent choice in questionnaire survey research for its efficacy. The scrutiny of the internal consistency of the questionnaire was meticulously conducted by scrutinizing the reliability of each facet of the scale independently. The outcomes of this evaluative process are succinctly presented in Table 1.

Table 1. Questionnaire measurement results

Measuring variables	Dimension	Item	Cronbach's α
Activity effect	A1	site infrastructure	0. 899
	A2	Staff service level	
	A3	Health program effect	
	A4	Rich festival activities	
Activity experience	B1	Strong health culture atmosphere	0. 881
	B2	Health tourism products	
	B3	feeling of joy	
	B4	Feel that you are getting value-for-money health products	
Activity cost	C1	Accessibility (cost) of event location	0. 866
	C2	Gifts received	
	C3	Consumption (cost) of surrounding activity environment infrastructure	
	C4	Ecological health products at reasonable prices	
Activity satisfaction	D1	Satisfaction with the effects of ecological health tourism activities	0. 777
	D2	Satisfaction level with ecological health tourism activity experience	
Behavioral intention	E1	Repeated participation in ecological health tourism activities	0. 786
	E2	Recommend ecological health tourism to friends	

It is conventionally accepted that an α coefficient falling within the range of 0.70 to 0.80 signifies a commendable level of reliability, while an α coefficient ranging from 0.80 to 0.90 is indicative of exceptional reliability. Examining Table 1 reveals that the Cronbach's α of the scale surpasses the 0.7 threshold, denoting a notably elevated level of internal consistency in the questionnaire and attesting to its commendable reliability.

In this investigation, the analysis of each dimension's composition was undertaken employing IBM SPSS 23.0 software. Broadly speaking, the exploratory factor with a Kaiser-Meyer-Olkin (KMO) statistic surpassing 0.9 signifies an exceptionally conducive milieu for the extraction of common factors. A KMO within the range of 0.8 to 0.9 indicates a setting apt for common factor extraction, while a KMO falling between 0.7 and 0.8 suggests the feasibility of common factor extraction, albeit with slightly diminished suitability. Conversely, a KMO below 0.7 denotes an environment less amenable to the extraction of common factors. Derived from the outcomes, it is deduced that the Kaiser-Meyer-Olkin (KMO) value attains 0.887, a magnitude markedly surpassing the conventional threshold of 0.70. Concurrently, Bartlett's sphericity test manifests a value of 3023.122, accompanied by a conspicuously significant P value of 0.00, thereby affirming the appropriateness of the dataset for factor analysis. Subsequently, the principal component analysis methodology was deployed to extract factors characterized by eigenvalues surpassing the threshold of 1.

Table 2. Common factor variance and rotated factor matrices for exploratory factor analysis

characteristic root		Bartlett's test of sphericity			
		KMO	Approximate chi-square	Significance P value	Rotated cumulative sum of squares
1	10.665	0.887	3023.122	0.000	76.57%
2	2.14				
3	1.991				
4	1.219				
5	1.146				

Consequently, a total of five common factors emerged from the analysis. The cumulative sum of squares following rotation reached an impressive 76.57%, a figure surpassing the 60% benchmark and harmonizing with the dimensions of the measured variables. Upon orthogonal rotation, the sixteen questionnaire options seamlessly coalesce into five distinct categories of factors. The loadings of each item, each exceeding the threshold of 0.5, attest to the comprehensive information encapsulated within the five extracted factors, with an absence of any instances of double factor loading. In this configuration, each observational variable is elegantly aggregated into its respective dimension, adhering to the theoretical underpinnings. Given this nuanced scrutiny, the chosen scale in this investigation demonstrates commendable construct validity.

RESULTS AND ANALYSIS

The software employed for the structural equation analysis and model verification was AMOS 22.0. The analysis of moment structures (AMOS), a sophisticated analytical tool, finds its principal utility in the examination of structural equation models (SEM). It combines the traditional general linear model and common factor analysis techniques (Hui et al., 2020). Confirmatory factor analysis, a sophisticated statistical method, is executed on survey data. This analytical approach

principally serves to ascertain the alignment between a specific factor and the corresponding observed variables, scrutinizing whether said alignment adheres to the theoretical presuppositions delineated by the researcher. In the genesis of this inquiry, extant theories and accumulated knowledge serve as the fulcrum, providing a foundation upon which hypotheses are posited and systematically constructing a model elucidating the intricate interplay among a constellation of variables. Subsequently, Confirmatory Factor Analysis (CFA) is employed to scrutinize the interrelationship between an array of measured variables and factor constructs deemed adequate to elucidate the variances within the measured variables. CFA, with its methodical precision, affords researchers the capability to scrutinize and corroborate the validity of the a priori presumed relationships between measured variables and underlying factors (Shrestha, 2021). The raison d'être of this research lies in the initiation from theoretical hypotheses, embarking upon the meticulous examination of the congruence between these suppositions and the resultant empirical data. Through this rigorous process, the aim is not only to assess the veracity of the theoretical constructs but also to refine and evolve the theoretical framework itself.

1. Confirmatory factor analysis

The outcomes of the confirmatory factor analysis, delineated in Table 3, manifest conspicuous revelations. The standardized factor loadings for items situated within the ambit of the five latent variables—namely, activity effect, activity experience, activity cost, satisfaction, and behavioral intention—uniformly exceed 0.6. This attests to the robust association between each observed variable and its respective latent construct, substantiating the reasoned existence of these latent variables. Notably, the collective reliability (CR) surpasses or closely approximates 0.8, markedly surpassing the conventional benchmark of 0.7. This augurs well for the interpretability of the observed variables within each dimension, rendering them more adept at expounding upon the findings specific to their respective realms.

Convergent Validity, in the context of this study, is evidenced when diverse observed variables employed to gauge a common latent variable yield scores that exhibit pronounced correlation. Notably, when the Average Variance Extracted (AVE) surpasses the threshold of 0.5, it serves as a substantive attestation to the compliance of measurement convergent validity with established standards. Intriguingly, the square root of the AVE for each dimension, when juxtaposed against the interdimensional correlation coefficients, unveils a compelling revelation. This juxtaposition suggests that the utilized measurement scale not only excels in convergent validity but also demonstrates a commendable discriminant validity.

Table 3. Confirmatory factor analysis results

Observed variable	Dimension	Normalization factor load	CR	AVE
Activity effect	A1	0.860	0. 899	0. 691
	A2	0.798		
	A3	0.788		
	A4	0.876		
Activity experience	B1	0.860	0. 883	0. 654
	B2	0.769		
	B3	0.730		
	B4	0.867		
Activity cost	C1	0.838	0. 867	0. 621
	C2	0.735		
	C3	0.746		
	C4	0.827		
Activity satisfaction	D1	0.850	0. 781	0. 641
	D2	0.749		
Behavioral intention	E1	0.763	0. 792	0. 656
	E2	0.855		

2. Structural equation model testing

Structural Equation Modeling (SEM) resides within the realm of multivariate statistics, serving as a sophisticated synthesis of two statistical methodologies: factor analysis and path analysis. In its intricate embrace, SEM meticulously scrutinizes the pivotal variables encapsulated within the model through concurrent testing. The inquiry into the nexus between latent variables and intervening or error variables is employed to glean insights into the direct, immediate, or aggregate impact of the independent variable upon the dependent variable (Sarstedt et al., 2022; Leong et al., 2020).

The foundational tenets underpinning Structural Equation Model (SEM) analysis align with those inherent in the broader domain of multivariate population statistics. Prerequisite to this analytical framework is the assumption of normality in the distribution of data, coupled with the imperative that measurement index variables manifest a linear relationship. Illustrated in Figure 2 is the structural equation model delineating the intricate interplay between tourist satisfaction and behavioral intention within the milieu of Bama ecological health activities in Guangxi.

In gauging and appraising the establishment of a structural equation model, the primary avenue lies in the measurement of various fitting indicators. Within these metrics, the criterion $\chi 2/df$ typically mandates a value less than 3, while GFI denotes the fitness index, AGFI signifies the adjusted fitness index, and NFI represents the normed fit index. Additionally, IFI stands as an incremental fit index, and CFI is a comparative fit index. The general stipulation is that these values surpass 0.9, signifying commendable model adaptability. A threshold exceeding 0.8, while deemed acceptable, falls slightly below the pinnacle of adaptability. Furthermore, an RMSEA below 0.08 serves as an indicator of exemplary adaptability and model fitting. It is discernible from Table 4 that the structural equation model evinces a praiseworthy fitting effect.
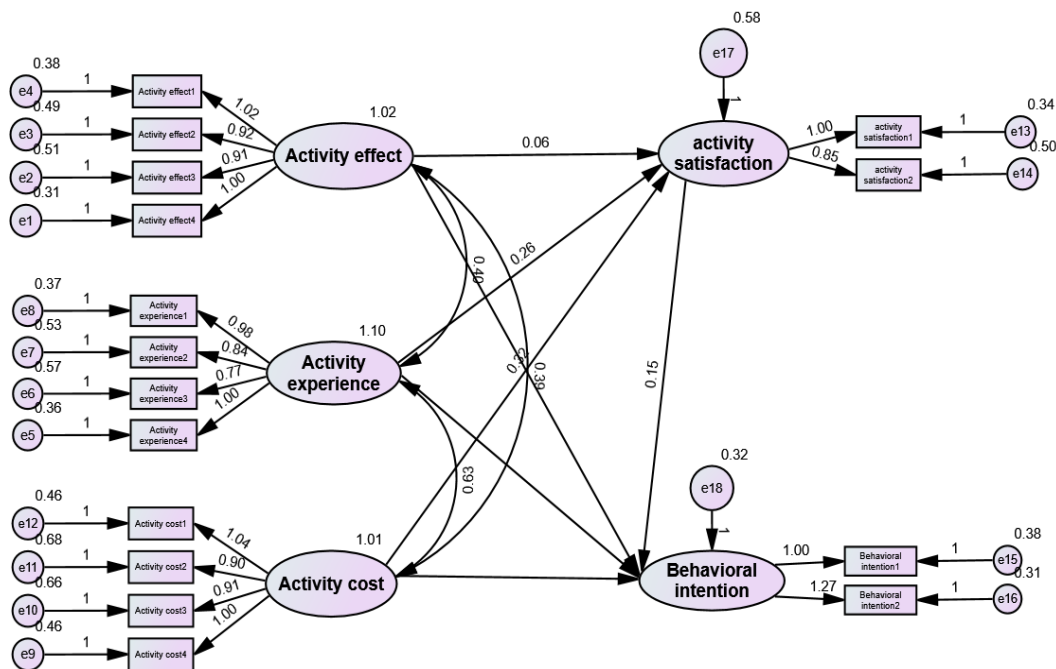
Figure 2. Structural equation model of tourist satisfaction and behavioral intention of ecological health tourism activities in Bama, Guangxi

Every hypothesis encapsulated within the intricate fabric of the Structural Equation Model (SEM) underwent meticulous verification through the utilization of the AMOS 22.0 software. With the exception of the hypothesis denoted as H1, where the P-value exceeds 0.1 and consequently does not surmount the threshold of the test, all other indicators successfully withstood scrutiny, as elucidated in Table 5.

Table 4. Structural equation model fitting test standards and actual test values

Reference indicators	Standard value	Model inspection
χ2/df	<3	1.241
GFI	>0.8	0.959
AGFI	>0.8	0.940
NFI	>0.9	0.962
TLI	>0.9	0.990
CFI	>0.9	0.992
RMSEA	<0.08	0.027

Table 5. Structural equation model hypothesis testing results

Hypothesis	Assumptions	Path coefficient	T	P
H1	H1: The effect of ecological health tourism activities felt by tourists is directly proportional to the individual satisfaction of tourists.	0.062	0.972	0.318
H2	H2: Tourists' individual experience of ecological health tourism activities itself is directly proportional to tourists' individual satisfaction.	0.288	3.768	0.000
H3	H3: The cost tourists spend on ecological health tourism activities is inversely proportional to tourists' individual satisfaction.	-0.337	4.314	0.000
H4	H4: The effect of tourists' experience of ecological health tourism activities is directly proportional to tourists' behavioral intentions.	0.212	3.376	0.000
H5	H5: Tourists' experience of ecological health tourism activities is directly proportional to tourists' behavioral intentions.	0.260	3.334	0.000
H6	H6: The cost of tourists participating in ecological health tourism activities is inversely proportional to tourists' behavioral intentions.	-0.160	2.029	0.044
H7	H7: Tourist satisfaction is directly proportional to behavioral intention.	0.195	2.540	0.011

Derived from the examination outcomes delineated in Table 4, it becomes apparent that:

(1) The standardized path coefficient extending from the impact of activity onto satisfaction stands at 0.062 (T=0.972, P=0.318>0.05). This observation suggests an absence of discernible correlation between the influence of activity and subsequent satisfaction. Consequently, the veracity of hypothesis H1 is not upheld.

(2) The standardized path coefficient emanating from the realm of activity experience unto satisfaction stands at 0.288 (T=3.768, P=0.000<0.05). This manifestation signifies a direct and affirmative influence of activity experience upon satisfaction, thereby substantiating the validity of hypothesis H2.

(3) The intrinsic cost associated with the activity manifests a direct adverse influence upon satisfaction, as evidenced by its standardized path coefficient of -0.337 (T=4.314, P=0.000<0.05). Consequently, hypothesis H3 stands validated.

(4) The impact of activity effect upon behavioral intention is distinctly positive, as delineated by its standardized path coefficient of 0.212 (T=3.376, P=0.000<0.05). Thus, hypothesis H4 stands substantiated.

(5) The influence of activity experience on behavioral intention is decidedly affirmative, as denoted by its standardized path coefficient of 0.260 (T=3.334, P=0.000<0.05). Consequently, hypothesis H5 stands validated.

(6) The pecuniary implications inherent in the activity wield a detrimental influence upon behavioral intention, as evidenced by its standardized path coefficient of -0.160 (T=2.029, P=0.044<0.05). Thus, hypothesis H6 stands affirmed.

(7) The state of contentment bears substantial positive sway upon behavioral intention, elucidated by its standardized path coefficient of 0.195 (T=2.54, P=0.011<0.05). Consequently, hypothesis H7 is affirmed.

Conclusions and suggestions
1. Conclusion
This study takes tourists participating in ecological health tourism in Bama, Guangxi as the research object, constructs a conceptual model of tourists' activity feelings, satisfaction and behavioral intentions, and puts forward relevant theoretical hypotheses. The findings elucidate that the participatory involvement of tourists in various tourism activities exerts a favorable influence on both their satisfaction levels and subsequent behavioral intentions. Conversely, the financial burden incurred by tourists in engaging in these activities demonstrates a converse effect, diminishing both their satisfaction and intentions. This underscores the nuanced interplay between tourists' experiential engagement and the financial implications of such activities. The results emphasize that an enriched activity experience not only elevates satisfaction but also augments behavioral intentions. Furthermore, a synergistic effect emerges when heightened experiential quality coincides with reduced costs, facilitating tourists in surpassing their travel expectations and, in turn, amplifying satisfaction levels. This intricate dynamic fosters an upward trajectory in tourists' behavioral intentions.

The influence of tourists' engagement in tourism activities bears a positive imprint on their behavioral intentions. The trajectory of ecological health tourism activities has been a recent developmental phenomenon, witnessing a heightened involvement of health-conscious elderly tourists. Presently, amidst the backdrop of the prevailing COVID-19 epidemic, the complexities surrounding inter-provincial travel procedures have intensified, rendering them cumbersome. Simultaneously, the costs associated with intra-provincial transportation remain relatively reasonable. Tourists may choose to participate in health activities nearby and projects, the scope of participation and acceptance is enhanced and inclusive. Tourist satisfaction is directly proportional to tourists' behavioral intentions. The better the overall experience of tourists participating in ecological health tourism activities, the more it can improve tourists' satisfaction in the activities, and it is more conducive to improving tourists' behavioral intentions. Visitors will be willing to participate in the activity again and recommend the activity to other friends and vice versa.

2. Recommendations
2.1. Strengthen the promotion of health care concepts and strengthen event experience design
The outcomes derived from the structural equation model unveil a narrative where the standardized path coefficient emanating from activity experience to satisfaction stands at 0.288 (T=3.768, P=0.000<0.05). This elucidates that the experiential facet of activities exerts a direct and affirmative influence on satisfaction, affirming the integral connection between the two elements. In essence, the tourists' engagement in activities directly shapes their satisfaction levels.

By further optimizing and strengthening the experience of ecological health tourism activities, tourist satisfaction can be improved (Pessot et al., 2021; Lin et al., 2021). For example, a series of physical and mental health activities are introduced, such as yoga, Tai Chi, meditation, etc., to meet tourists' health needs. These activities not only help relax the body and mind, but also conform to the cultural connotation of longevity. Create activities with rich cultural characteristics. Combined with Bama's longevity culture, activities with local characteristics are designed, such as traditional rehabilitation and health regimens, senior citizen orchestra performances, etc., so that tourists can experience the local longevity culture more deeply.

2.2. Optimize cost structure and improve resource utilization efficiency
The revelations gleaned from the structural equation model underscore that activity cost exerts a direct adverse influence on satisfaction, as evidenced by its standardized path coefficient of -0.337 (T=4.314, P=0.000<0.05). In light of these findings, a strategic imperative emerges to optimize the cost structure, enhance the efficiency of resource utilization, and implement alluring pricing strategies. These measures aim to mitigate the perceived cost associated with tourists' engagement in activities (Zhang et al., 2020; Kanyilmaz et al., 2022). For example, reasonable package price strategies or package discounts can be used to make tourists feel that the participation cost is more affordable. By carefully designing the activity process, we ensure close connection between various links and avoid the waste of resources. Reasonably plan the start and end times of activities to improve the efficiency of use of event venues and equipment. Implementing a digital management system (Wahyuningtyas et al., 2022; Hoang and Khoa, 2022), encompassing facets such as online reservations, electronic ticketing, and event information dissemination, serves to diminish labor expenditures and elevate operational efficacy. This not only diminishes reliance on paper materials but also refines the orchestration and oversight of events. Cultivating collaborative affiliations with local purveyors in the realms of catering, accommodations, transportation, and allied enterprises is pursued with a view to fostering mutual advantages. Through cooperation, more competitive prices and services can be obtained, reducing the operational burden of the event itself. Use environmentally friendly materials and promote waste classification and recycling. By promoting green environmental protection initiatives, it not only helps to reduce costs, but also enhances the sustainable development image of Bama longevity tourism.

2.3. Improve activity effects and guide behavioral intentions

The outcomes derived from the structural equation model elucidate a conspicuous positive influence of activity effects and behavioral intentions on overall satisfaction. To enhance the efficacy of longevity tourism endeavors in Bama and steer tourists toward affirmative behavioral inclinations, several measures may be instituted. Augmenting the substance of activities with indigenous attributes and longevity culture, encompassing traditional festivities, theatrical exhibitions, and the dissemination of longevity wisdom, can elevate the overall allure and interest of the activities (Sansyzbayeva et al., 2021; Demkova et al., 2022). Incorporating technological interactive elements is also recommended to infuse modernity and engagement into the experience. Leverage advanced technological modalities, such as virtual reality (VR) or augmented reality (AR) innovations, to furnish tourists with a more opulent and immersive interactive encounter (Teoh et al., 2021; Wang and Larimo, 2020; Engelland, 2014; Rawiński, 2016). Facilitate engagement in ecological conservation endeavors.

In conjunction with the tapestry of longevity culture, instill motivation in tourists to partake in local ecological preservation initiatives, fostering increased awareness and behavioral involvement through endeavors such as volunteer services and tree planting activities (Claude, 2020; Tretiakova et al., 2019). By implementing these enhancements, the allure and interactivity of Bama's longevity tourism activities can be heightened, concurrently encouraging tourists to engage more ardently and cultivate positive behavioral inclinations.

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