

The SPARKLE Model for Elderly Recreational Wellness Tourism: Development and Evaluation in the New Normal Era of Chiang Mai, Thailand

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Received September 7, 2025; Retrieved September 30, 2025; Accepted September 30, 2025

Abstract

The confluence of a global aging population and a growing emphasis on wellness has positioned elderly recreational wellness tourism as a critical and expanding segment of the industry. However, the COVID-19 pandemic fundamentally transformed this landscape, creating a new paradigm where travelers prioritize health and safety. Consequently, traditional destination competitiveness frameworks, which often fail to account for the unique needs of an aging and risk-averse demographic, require urgent adaptation to address these post-pandemic realities. This study aims to (1) examine the current situation of elderly recreational wellness tourists in Chiang Mai Province under New Normal conditions and (2) develop and evaluate the SPARKLE Model framework for elderly recreational wellness tourism in Chiang Mai Province. A mixed-method approach was employed, combining quantitative survey research (N=400 elderly tourists) with qualitative expert validation. Data collection utilized a validated questionnaire (IOC=0.80, Cronbach's α =0.85) and two-round focus group discussions with five tourism and elderly care experts. Multi-stage sampling was used to recruit elderly tourists visiting Chiang Mai Province. Results: Seven key components emerged from the research: Safety, Pleasure, Attract amenities (A), Responsibility, Knowledge, Linkage, and Enablers (SPARKLE). Quantitative findings revealed high awareness (M=4.24) and practice (M=4.21) of COVID-19 safety measures among elderly tourists, moderate digital technology adoption (M=2.95), and high overall destination potential (M=0.74). Expert validation confirmed the framework's appropriateness and comprehensiveness for elderly recreational wellness tourism development. Conclusion: The SPARKLE Model provides

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a comprehensive, culturally-appropriate framework for developing elderly recreational wellness tourism in the post-pandemic era. The model addresses critical gaps in existing tourism frameworks by integrating safety protocols, personalization needs, and community engagement principles specifically designed for elderly travelers in the New Normal context.

Keywords: Elderly, recreational wellness tourism, New Normal, SPARKLE Model

Introduction

The global tourism industry has witnessed a significant increase in interest in wellness tourism, particularly among the elderly population seeking opportunities for health revitalization, relaxation, and social engagement through travel activities. As individuals age, their travel needs shift, placing greater emphasis on health, accessibility, and safety (Wen, J. et al., 2023). Simultaneously, the COVID-19 pandemic has created unprecedented challenges for the tourism industry, especially for niche markets where concerns about safety and health have become paramount (Tourism Authority of Thailand, 2020).

Thailand has demonstrated a strong capacity for managing the pandemic, positioning itself as a leader in global health security and tourism recovery. The country was ranked first worldwide in the Global COVID-19 Index (GCI) in 2020 (Global COVID-19 Index, 2020) and fifth in the Global Health Security Index (GHS) in 2021 with a score of 68.2 (Global Health Security-GHS, 2021). These achievements, combined with proactive government policies such as the D-M-H-T-T-A measures (Department of Health, Ministry of Public Health, 2021). and the SHA standard (Tourism Authority of Thailand., 2020), have instilled confidence in health-conscious tourists, particularly the elderly who prioritize safety and access to healthcare services.

Within this context, the elderly tourism market has become a significant and growing segment with distinct characteristics that set it apart from the general tourist population (Fan et al., 2024). Research by Kim, H. et al. (2015) indicates that safety concerns, accessibility, and service quality are key factors influencing elderly tourist satisfaction, while a study by Zhang, T. et al. (2022) shows that "tourism experiences contribute significantly to older adults' mental health and overall well-being." Consequently, the concept of "elderly recreational wellness tourism" is of great importance. "Recreation" serves as a social instrument that promotes participation, skill



development, and social function (Kanchanakit. S, 2017), aligning with the principles of Active Aging, which emphasizes physical, mental, and social engagement.

Despite the growing recognition of the importance of tourism for the elderly, existing destination competitiveness frameworks, such as Buhalis, D. (2000) 6As, often lack specific considerations for this demographic, especially in the post-pandemic context. The integration of Active Aging principles into destination management remains a largely underexplored issue.

Chiang Mai Province presents a compelling case study for the development of elderly recreational wellness tourism. A destination that gained immense popularity among tourists after the country's reopening (Posttoday, 2020), it possesses a unique combination of a well-established healthcare infrastructure and a rich tapestry of cultural and natural resources. This is supported by pre-pandemic statistics, which demonstrate the city's significant role in the national tourism landscape. In January 2019, Chiang Mai attracted 1.1 million tourists, with a substantial 28.5% being international visitors, marking a 1.11% increase from the previous year (Domestic Tourism Statistics, 2019). Furthermore, the city's designation as a UNESCO Creative City of Craft and Folk Art underscores its strong cultural foundation. With tourism contributing as much as 35% of its GDP in 2012, Chiang Mai's tourism significance and capacity are undeniable. These factors provide a robust foundation for a study focused on developing specialized tourism models for a unique demographic, making it a highly relevant and practical context for this research. Therefore, this research aims to address both theoretical and practical gaps by developing the SPARKLE Model, a comprehensive framework that integrates destination competitiveness theory with Active Aging principles and Thailand's New Normal strategies to meet the evolving needs of the elderly in this new era.

Research objectives

1.To examine the current situation of elderly recreational wellness tourists in Chiang Mai Province under New Normal conditions.

2.To develop and evaluate the SPARKLE Model framework for elderly recreational wellness tourism in Chiang Mai Province.

The results of this research will make a significant contribution, particularly by introducing the SPARKLE Model, which can serve as a practical guideline for entrepreneurs and policymakers to



enhance the quality of tourism for the elderly and provide data for promoting sustainable tourism in the long term.

Scop of Research

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The SPARKLE Model for Elderly Recreational Wellness Tourism: Development and Evaluation in the New Normal Era of Chiang Mai, Thailand to study Theoretical Foundations: Destination Competitiveness and Active Aging, Contextualizing the Framework for Thailand's "New Normal" The Case of Chiang Mai as a Recreational Wellness Tourism Destination

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Population: Elderly tourists aged 60 and above visiting Chiang Mai Province during the study period. Study Period: Data collection was conducted from October 2022 to April 2023 to ensure representative sampling of elderly tourist populations.

Literature Review and Concepts

1.Theoretical Foundations: Destination Competitiveness and Active Aging

Effective tourism development hinges on a comprehensive understanding of destination competitiveness and the specific needs of target demographics. Buhalis's (2000) **6As- framework** encompassing Attractions, Accessibility, Amenities, Available Packages, Activities, and Ancillary Services-remains a seminal model for analyzing destination strengths. Recent applications of this framework confirm its enduring relevance, with scholars integrating it into modern contexts like smart tourism development (Damanik, D. et al., 2024) and health and wellness destination assessment (Sustainability, 2024).

This established framework, however, must be adapted to address the specific needs of an aging population. **Active Aging**, a paradigm shift from viewing aging as decline to recognizing it as an opportunity for continued growth and engagement (World Health Organization, 2002), provides the ideal lens. Research by Wen, J. et al. (2023) provides compelling evidence that "tourism plays a significant role in healthy aging by providing opportunities for physical activity, social interaction, and cognitive stimulation." Fan et al. (2024) further argue that "active aging is achieved through collaborative value creation between tourists, service providers, and



destinations," underscoring the need to design experiences specifically for elderly travelers. Key factors influencing senior tourist satisfaction include safety, accessibility, and quality of service (Kim, H. et al., 2015), which must be integrated into any new destination framework.

2.Contextualizing the Framework for Thailand's "New Normal"

The COVID-19 pandemic profoundly impacted global tourism, with international tourist arrivals plummeting by approximately 73% in 2020 (UNWTO, 2021). As a heavily tourism-dependent economy (contributing around 20% of GDP pre-pandemic; Bank of Thailand, 2020), Thailand faced severe economic disruption, necessitating robust and comprehensive recovery strategies. Thailand's approach was guided by a commitment to public health and a layered strategy for safe tourism resumption (WHO, 2020), which proved remarkably successful, with the country being ranked first globally in the Global COVID-19 Index (GCI) in 2020 and fifth in the Global Health Security Index (GHS) in 2021.

These achievements were built on a foundation of proactive government policies, including the implementation of the **Amazing Thailand Safety & Health Administration (SHA) certification**. This project represented a collaborative effort between the Ministry of Tourism and Sports, TAT, and the Ministry of Public Health, aiming to ensure tourism businesses were ready to meet new health and sanitation standards (Tourism Authority of Thailand., 2020a ; Tourism Thailand, 2020). The SHA program covered a wide range of services, including accommodations, attractions, and health and beauty services. Furthermore, Thailand's comprehensive health framework, widely known as the **D-M-H-T-T-A protocol**, was implemented to mitigate transmission risks. This framework, coordinated through the Centre for COVID-19 Situation Administration (CCSA), provided clear guidelines covering **Distance, Mask wearing, Hand washing, Temperature checks, Testing, and the use of Applications for contact tracing** (Integrity Legal, 2021). These measures, which were integral to pioneering initiatives like the **Phuket Sandbox model**, instilled confidence in health-conscious tourists and positioned Thailand as a safe and attractive destination for risk-averse travelers, particularly the elderly.

The Case of Chiang Mai as a Recreational Wellness Tourism Destination

Research by Lo, Y. C., & Janta, P. (2020) on community-based tourism in Chiang Mai provides valuable insights into the destination's development potential. Their study of the Muen Ngoen Kong community identified "abundance of tourism resources and security-related



concerns" as key benefits, while also highlighting challenges such as "conflict over resource ownership and benefit leaking, financial issues, and problems of community participation." Furthermore, Aung, M.N., et al. (2022) documented the healthcare capabilities in Chiang Mai, particularly for elderly populations, which demonstrates the destination's capacity to support recreational wellness tourism development. The research provides evidence of specialized services and infrastructure suitable for elderly recreational wellness tourism, establishing the empirical foundation for destination selection.

Research Gap Analysis

Despite these advantages, current literature reveals several critical gaps requiring attention:

- **Theoretical Integration Gap:** Existing research lacks a comprehensive framework that integrates destination competitiveness theory with Active Aging principles and the new safety requirements of the post-pandemic era. While individual components have been well-researched, their integration remains underexplored.

- **Elderly-Specific Tourism Models:** Traditional destination management frameworks often fail to recognize the distinct characteristics and requirements of elderly tourists. This gap is particularly evident in recreational wellness tourism contexts where elderly tourists have specific safety, accessibility, and service needs.

- **Post-Pandemic Adaptation:** There is limited research on how traditional tourism frameworks should be adapted to incorporate post-pandemic safety measures and changing tourist expectations for risk-averse demographics such as elderly travelers.

- **Thai Cultural Context Integration:** While international frameworks exist for destination competitiveness, their application to Thai cultural contexts, particularly for elderly recreational wellness tourism, requires further development. The integration of Thai traditional wisdom and modern tourism management practices represents an underexplored area with significant potential.

This study aims to address these gaps by developing the **SPARKLE Model**, a comprehensive framework that systematically integrates the established theories of destination competitiveness and active aging with Thailand's New Normal strategies to meet the specific needs of elderly recreational wellness tourists. The complete framework is illustrated in Figure 1.



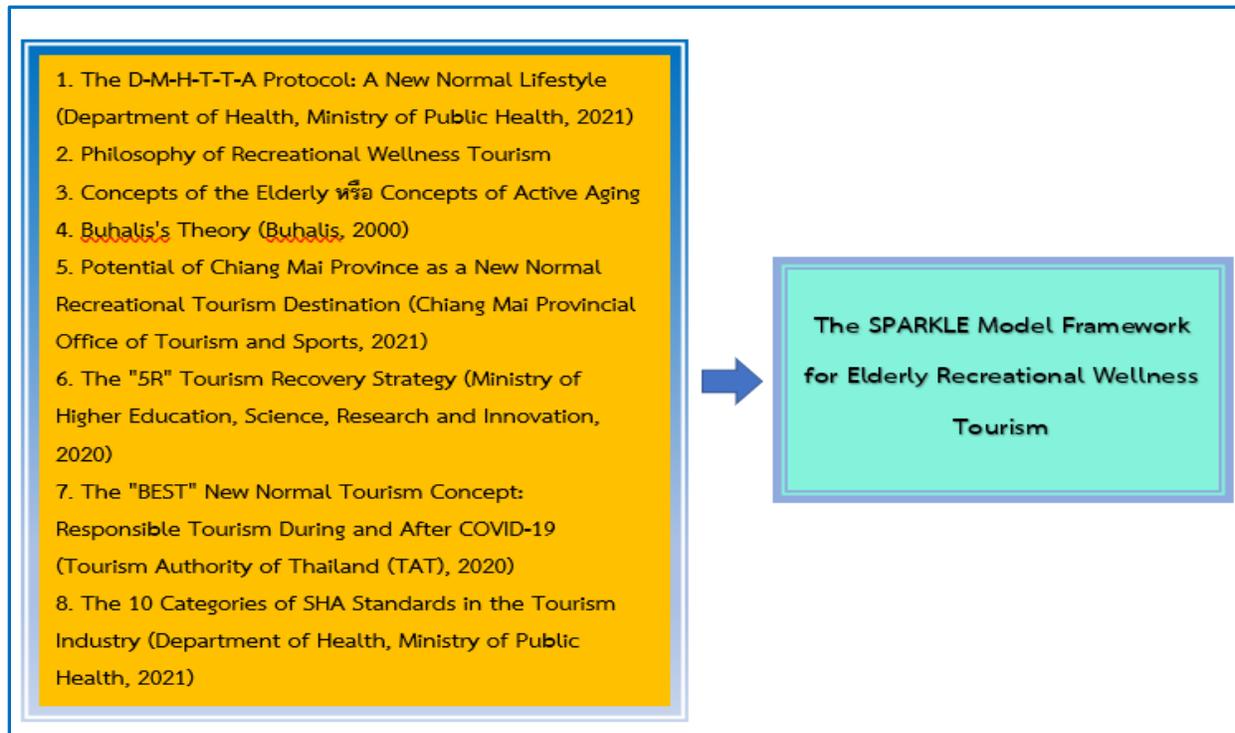


Figure 1 The Conceptual Framework of the SPARKLE Model

This framework illustrates the integration of established tourism theories with the specific research objectives of this study. It outlines the foundational theories, the research methodology used for model development and validation, and the final SPARKLE Model as a holistic framework for elderly recreational wellness tourism in the New Normal era.

Research Methodology

Research Design

This research employed a mixed-method approach combining quantitative survey research with qualitative expert validation. The study began by examining the tourism situation of elderly tourists after the COVID-19 outbreak through a survey of elderly tourists visiting Chiang Mai Province. Quantitative data provided the foundation for understanding current conditions, while qualitative expert review ensured model validity and practical applicability.



Study Area and Population

Study Location: Chiang Mai Province, Thailand, was selected as the study area due to its established tourism infrastructure, healthcare capabilities, and cultural resources suitable for elderly recreational wellness tourism development.

Target Population: Elderly tourists aged 60 and above visiting Chiang Mai Province during the study period. Study Period: Data collection was conducted from October 2022 to April 2023 to ensure representative sampling of elderly tourist populations.

Sample Size and Sampling Method Quantitative Phase:

Sample Size: The sample size was calculated using Taro Yamane's formula (Yamane, 1967) to determine the appropriate number of participants from the target population. Given the specific characteristics of elderly tourists visiting Chiang Mai, a statistically significant sample size of **N=400** was determined for this study

Sampling Method: Multi-stage sampling was employed to ensure a representative sample across different tourist areas within Chiang Mai Province. The process involved a systematic selection of key districts known for elderly tourism, followed by random sampling of participants at major tourist attractions and healthcare facilities within those districts.

Inclusion Criteria: Age 60 years and above, currently visiting or having visited Chiang Mai for tourism purposes

Response Rate: A very high response rate was achieved, reflecting the dedicated face-to-face data collection approach. Qualitative Phase.

Expert Panel: N=5 experts divided into two specialized groups

Group 1: 3 experts with knowledge and experience in recreational wellness tourism for the elderly

Group 2: 2 experts with knowledge and experience in recreation for the elderly

Selection Criteria: Minimum 10 years of professional experience in relevant fields, academic qualifications, and practical expertise in elderly tourism or healthcare

Data Collection Instruments

Quantitative Instrument

A structured questionnaire was developed based on comprehensive literature review of recreation, recreational wellness tourism, elderly tourism theories, and Thailand's COVID-19



response measures. The questionnaire employed a 5-point Likert scale and comprised four main sections:

Demographics and Travel Patterns: Personal characteristics and tourism behavior

Recreational wellness tourism Awareness and Safety Practices: COVID-19 safety knowledge and implementation

Digital Technology Adoption: New Normal tourism technology usage

Destination Potential Assessment: Infrastructure and service evaluation

Instrument Validation

Content Validity: Item-Objective Congruence (IOC) assessment was conducted with 5 subject matter experts rating congruence between question items and research objectives. The resulting IOC value was 0.80, indicating high content validity.

Reliability Testing: Pilot testing was conducted with 30 individuals not included in the main sample. Cronbach's alpha coefficient analysis yielded $\alpha = 0.85$, demonstrating excellent internal consistency reliability.

Qualitative Instrument

Focus group discussion protocols were developed for two-round expert validation:

- Round 1: Initial model development and component identification
- Round 2: Model refinement and final validation

Data Collection Procedures

Quantitative Data Collection: Face-to-face questionnaire administration was conducted at major tourist attractions, accommodations, and transportation hubs in Chiang Mai Province. Trained research assistants ensured proper data collection protocols and provided assistance to elderly respondents as needed.

Qualitative Data Collection: Two rounds of focus group discussions were conducted:

Round 1: Initial model draft development based on literature review and quantitative findings

Round 2: Model validation and refinement based on expert feedback

Data Analysis Methods



Quantitative Analysis: Descriptive statistical analysis was conducted using SPSS version 28.0, including calculation of means, standard deviations, and frequency distributions. Data were analyzed to understand current tourism situations and destination potential.

Qualitative Analysis: Content analysis was employed for focus group discussion data, following systematic coding procedures to identify themes and patterns. Expert consensus was achieved through iterative discussion and model refinement. Integration: Mixed-method integration occurred through concurrent triangulation, where quantitative findings informed qualitative model development, and expert validation enhanced quantitative interpretation.

Ethical Considerations

Informed consent was obtained from all participants. Confidentiality and anonymity were maintained throughout the research process. The study received ethics approval from the institutional review board prior to data collection.

Participants were excluded if they were unable or unwilling to participate in the study. Before commencing the research, ethical approval was obtained from the Ethical Committee for Human Research at Rajamangala University of Technology Lanna, Thailand (No.013/2564). All participants received a thorough explanation of the study protocol before participation. Written informed consent was then obtained from all participants prior to data collection.

Research Results

This research aimed to examine the current situation of elderly recreational wellness tourism in Chiang Mai Province under New Normal conditions and to develop the SPARKLE Model framework for elderly recreational wellness tourism.

1.Part 1: Current Situation Analysis

1.1 Demographics and Travel Patterns

Analysis of respondent characteristics (Table 1) reveals that the majority of elderly tourists were female (52.50%, n=210) compared to male (47.00%, n=188). The largest age group was 60-64 years (56.70%, n=227), followed by 65-69 years (23.00%, n=92). Geographically, respondents were primarily from the Northern Region (36.50%, n=146) and Chiang Mai Province itself (34.45%, n=138), indicating strong domestic tourism patterns.



Travel pattern analysis shows that most elderly tourists traveled 1-2 times per year before COVID-19 (62.50%), with private car being the most popular transportation method (70.75%). The majority traveled with family or spouse (67.50%), and 44.50% were first-time visitors to Chiang Mai, while 29.50% were repeat visitors with 4 or more previous visits.

Table 1: Demographics and Travel Patterns of Elderly Recreational wellness tourism Respondents

Demographics	Categories	n	%
Gender	Male	188	47.00
	Female	210	52.50
	Other	2	0.50
Age Groups	60-64 years	227	56.70
	65-69 years	92	23.00
	70-74 years	58	14.50
	75-79 years	17	4.30
	80+ years	6	1.50
Origin Region	Northern Region	146	36.50
	Chiang Mai Province	138	34.45
	Central Region	56	14.00
	Northeastern Region	37	9.30
Demographics	Categories	n	%
	Southern Region	19	4.75
	Other	4	1.00
Travel Patterns	Categories	n	%
	Pre-COVID Frequency		
	1-2 times/year	250	62.50
	3-4 times/year	79	19.75
	5-6 times/year	26	6.45
	>6 times/year	45	11.30
Current Transportation	Private car	283	70.75
	Airplane	55	13.75
	Tour group	55	13.75



Other	7	1.75
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Table 1: Demographics and Travel Patterns of Elderly Recreational wellness tourism Respondents

Demographics	Categories	n	%
Travel Companions	Family/Spouse	270	67.50
	Tour group	63	15.80
	Close friends	61	15.25
	Other	6	1.45
Visit Status	First time	178	44.50
	Repeat (4+ times)	118	29.50
	Second times	82	20.50
	Third times	22	5.50

Popular destinations included temples (73.3%), Royal Park Rajapruek (43.0%), and waterfalls (37.3%). Primary travel motivations were convenient transportation (64.5%), beautiful scenery (64.3%), and safety (30.8%), highlighting the importance of accessibility and security for elderly tourists.

1.2. Recreational wellness tourism Awareness and Safety Practices Table 2 presents findings on recreational wellness tourism awareness versus safety practice behaviors during COVID-19. Results demonstrate high levels of both awareness (M=4.24, SD=0.599) and practice (M=4.21, SD=0.627) of safety measures, interpreted as "Very Important" and "Frequently Practiced" respectively. The highest awareness and practice scores were for proper mask wearing (awareness: M=4.41, SD=0.802; practice: M=4.43, SD=0.753) and hand hygiene with alcohol sanitizer (awareness: M=4.39, SD=0.732; practice: M=4.35, SD=0.751). The lowest scores were for health tracking app usage (awareness: M=3.85, SD=1.168; practice: M=3.66, SD=1.306), indicating digital adoption challenges among elderly tourists.



Table 2: Recreational wellness tourism Awareness versus Safety Practice Behaviors During COVID-19 (N=400)

Safety Measures	Awareness		Practice	
	Mean	SD	Mean	SD
Physical distancing (1-1.5 meters)	4.30	0.802	4.26	0.883
Proper mask wearing (covering mouth, nose, chin)	4.41	0.802	4.43	0.753
Hand hygiene with alcohol sanitizer (70%+) before/after eating, entering home, restroom, touching face and high-risk areas	4.39	0.732	4.35	0.751
Temperature screening before entering facilities and symptom monitoring (respiratory symptoms, red eyes, rash, diarrhea, fever >37.5°C)	4.25	0.785	4.22	0.819
COVID-19 testing cooperation when at risk (contact with patients, high-risk locations, symptoms matching COVID-19 indicators)	4.26	0.831	4.35	0.784
Health tracking app usage (Thai Chana, Mor Chana, Chiang Mai Chana) for travel information and self-assessment	3.85	1.168	3.66	1.306
Overall	4.24	0.599	4.21	0.627
Interpretation	Very Important			Frequently Practiced

1.3 New Normal Tourism Behaviors and Digital Technology Adoption Analysis of New Normal tourism behaviors and digital technology adoption (Table 3) reveals moderate overall digital tourism adoption ($M=2.95$, $SD=1.180$), interpreted as "Frequently Used." Online booking behaviors showed frequent usage for both travel tickets ($M=3.04$, $SD=1.541$) and tourist attraction tickets ($M=2.97$, $SD=1.493$). Mobile application usage varied significantly, with Thai Chana (national contact tracing) being



most frequently used ($M=2.82$, $SD=1.583$), followed by Khon La Khruang government co-payment scheme ($M=2.98$, $SD=1.587$). Lower usage was observed for Chiang Mai Chana local contact tracing ($M=2.47$, $SD=1.643$) and Rao Thiao Duay Kan travel stimulus ($M=2.49$, $SD=1.626$). Traditional tourism behaviors remained strong, with maintaining cleanliness at tourist attractions being regularly practiced ($M=4.28$, $SD=0.989$).

Table 3: New Normal Tourism Behaviors and Digital Technology Adoption (N=400)

Tourism Behaviors	Mean	SD	Interpretation
Online Booking Behaviors			
Online advance booking for travel tickets	3.04	1.541	Frequently Used
Online advance booking for tourist attraction tickets	2.97	1.493	Frequently Used
Mobile Application Usage			
Thai Chana (national contact tracing)	2.82	1.583	Frequently Used
Chiang Mai Chana (local contact tracing)	2.47	1.643	Sometimes Used
Khon La Khruang (government co-payment scheme)	2.98	1.587	Frequently Used
Rao Thiao Duay Kan (government travel stimulus)	2.49	1.626	Sometimes Used
Smart Map (navigation application)	2.59	1.648	Frequently Used
Traditional Tourism Behaviors			
Maintaining cleanliness at tourist attractions (proper waste disposal, not touching plants/flowers, avoiding damage to objects)	4.28	0.989	Regularly Practiced
Tourism Behaviors	Mean	SD	Interpretation
Overall Digital Tourism Adoption	2.95	1.180	Frequently Used

1.4 Recreational wellness tourism Destination Potential Assessment



Table 4 presents comprehensive assessment of Chiang Mai's recreational wellness tourism destination potential across four key dimensions. Overall destination potential scored high (M=0.74, SD=0.255) on a scale from 0 (not available) to 1 (fully available).

Safety and Hygiene Standards achieved the highest scores (M=0.92, SD=0.138), with regular cleaning of buildings and surfaces scoring nearly perfect (M=0.98, SD=0.111). Access Routes and Supporting Services also scored well (M=0.80, SD=0.202), indicating strong infrastructure foundation.

Tourist Amenities and Accessibility showed moderate to high performance (M=0.74, SD=0.274), with adequate rest areas and benches scoring highest (M=0.91, SD=0.279) but wheelchair services scoring lower (M=0.57, SD=0.494). Health Activities and Wellness Packages scored lowest (M=0.51, SD=0.406), indicating significant development opportunities.

Health massage activities (M=0.45, SD=0.498) and health promotion massage services (M=0.49, SD=0.500) particularly require enhancement.

Table 4 Recreational wellness tourism Destination Potential Assessment in New Normal Context

Assessment Dimensions and Items	Mean	SD	Level
1. Safety and Hygiene Standards			
Regular cleaning of buildings, surrounding areas, and frequently touched surfaces with disinfectants	0.98	0.111	High
Regular cleaning of restrooms and all sanitary facilities with cleaning agents and disinfectants	0.93	0.242	High
Adequate, accessible restrooms for all ages, genders, including disabled persons	0.91	0.286	High



Table 4 Recreational wellness tourism (Next)

Assessment Dimensions and Items	Mean	SD	Level
Appropriate ventilation and air circulation systems with regular cleaning and maintenance	0.93	0.255	High
Adequate hand sanitizer provision (minimum 70% alcohol) in common areas	0.91	0.279	High
Clean hand washing stations and restrooms with adequate soap supply	0.89	0.310	High
Clear separation of male and female restrooms	0.91	0.282	High
Safety & Hygiene Subtotal	0.92	0.138	High
4.2 Tourist Amenities and Accessibility			
First aid personnel for emergency tourist assistance	0.69	0.460	High
Handrails on stairs and ramps	0.72	0.445	High
Wheelchair-accessible ramps for elderly visitors	0.79	0.402	High
Wheelchair service for elderly visitors	0.57	0.494	Moderate
Handrails in restrooms for elderly visitors	0.71	0.451	High
Dedicated restrooms for elderly visitors	0.68	0.464	High
Souvenir shops for tourists	0.85	0.350	High
Adequate rest areas and benches for tourists	0.91	0.279	High
Amenities & Accessibility Subtotal	0.74	0.274	High
4.3 Access Routes and Supporting Services			
Multiple access routes to tourist destinations	0.93	0.246	High
Clear directional signs to all tourist attractions	0.89	0.310	High
Transportation services for safe and convenient access to attractions	0.81	0.390	High
Adequate parking management at tourist attractions	0.88	0.319	High
Tourist information service points	0.87	0.331	High
Staff providing service guidance to tourists	0.79	0.404	High



Table 4 Recreational wellness tourism (Next)

Assessment Dimensions and Items	Mean	SD	Level
Special parking spaces for elderly or disabled visitors	0.68	0.466	High
Free internet and Wi-Fi services for tourists	0.52	0.500	Moderate
Access & Supporting Services Subtotal	0.80	0.202	High

Note: Assessment scale: 0 (not available) to 1 (fully available). High Level ≥ 0.60 , Moderate Level = 0.40-0.59, Low Level < 0.40

2 Part 2: SPARKLE Model Development 4.2.1 Initial Model Development (Round 1) Based on quantitative findings and comprehensive literature review, an initial framework was developed comprising seven components identified through document analysis and synthesis. The first round of expert focus group discussion refined these components into the preliminary SPARKLE framework:

- S: Safety - Essential foundation for elderly tourism
- P: Pleasure - Satisfaction with tourist attractions and services
- A: Attractiveness - Charms or attractions that satisfy tourists
- R: Responsibility - Environmental, cultural, and identity aspects
- K: Knowledge - Technology integration and pandemic awareness
- L: Linkage - Connections between stakeholders and guidelines
- E: Equipment - Resources, tools, and facilities for success

Model Refinement and Validation (Round 2) The second round of expert focus group discussion involved comprehensive review by the same five experts, who provided detailed feedback on model appropriateness and comprehensiveness of the SPARKLE Model. Through content analysis of the discussions and careful consideration of expert consensus, the researcher made specific refinements to the model as follows:

- Safety: Creating safe and secure environments for elderly travelers, including comprehensive risk management for health and safety at tourist destinations.



- **Pleasure:** Enhancing tourism experiences with fun and challenging activities appropriate for elderly tourists, such as learning local arts and culture or participating in suitable outdoor activities.

- **Attract amenities:** The original draft focused solely on **Attractiveness**, defined as the charms or attractions that provide tourist satisfaction. The discussion with the expert panel led to a significant expansion of this component to include **Amenities**, which are essential facilities tailored for elderly tourists. This refinement resulted in the new component: **Attractamenities**, emphasizing that a destination must not only be appealing but also provide appropriate and modern facilities. This includes ensuring quality accommodations that offer a quiet and comfortable environment, which is crucial for enhancing the elderly tourist experience.

- **Responsibility:** Fostering responsibility in preserving the environment and society of tourist destinations, including promoting healthy and sustainable behaviors among elderly tourists.

- **Knowledge:** Providing useful information and knowledge about health and appropriate tourism activities specifically designed for elderly populations.

- **Linkage:** Establishing strong connections between tourist destinations and public resources to provide elderly tourists with comprehensive amenities and experiences.

- **Enablers:** Changed from "Equipment" to "Enablers," referring to government and private sector support in developing appropriate tourist destinations for elderly tourists in the New Normal era, including public transportation, suitable restaurants, and factors promoting elderly participation in recreational wellness tourism activities.

- **3 Expert Validation Results** Expert consensus confirmed the SPARKLE Model's appropriateness for elderly recreational wellness tourism development in Chiang Mai Province. Key validation outcomes included:

- **Comprehensive Coverage:** All experts agreed the seven components adequately address elderly tourist needs

- **Practical Applicability:** The framework was deemed implementable in real-world tourism contexts

- **Cultural Appropriateness:** Components align with Thai cultural values and tourism practices

- **New Normal Relevance:** The model effectively incorporates post-pandemic requirements



- Stakeholder Integration: Linkage and Enabler components facilitate multi-sector collaboration

The SPARKLE Model framework, derived from the rigorous two-round expert validation and underpinned by empirical research, is not merely a collection of individual components but rather a dynamic and interconnected system designed to comprehensively enhance elderly recreational wellness tourism. The relationships between these seven elements are synergistic and hierarchical in certain aspects, ensuring a holistic approach to destination development. Safety (S) serves as the fundamental bedrock of the entire framework. Without robust safety and security protocols, the pursuit of other components becomes compromised, as elderly travelers inherently prioritize their well-being. Built upon this foundation, Pleasure (P) and Attractamenities (A) become viable, as a secure environment allows elderly tourists to fully engage in enjoyable, stimulating activities and appreciate the destination's appeal and facilities. These components are further enriched by Knowledge (K), which empowers elderly travelers with essential information about health and activities, facilitating informed choices and deeper engagement. Furthermore, Responsibility (R) permeates the framework, ensuring that tourism development is sustainable and contributes positively to the environment and local society, which in turn enhances the destination's long-term attractiveness and appeal. The Linkage (L) component highlights the crucial need for seamless collaboration and coordination among all stakeholders – from local communities to service providers and public resources. This integrated network ensures that services are comprehensive, accessible, and responsive to the unique needs of elderly tourists. Finally, Enablers (E) act as the overarching support mechanisms, representing the crucial roles of government policies, infrastructure development (e.g., transportation, accessible facilities), and private sector initiatives in fostering an environment where all other SPARKLE components can thrive and be effectively delivered. Ultimately, the successful interplay and mutual reinforcement among these seven components drive the sustainable development and competitiveness of elderly recreational wellness tourism destinations in the New Normal era.

Summarize Discussion and Suggestions

Summarize



The SPARKLE Model presents a comprehensive framework for elderly recreational wellness tourism development in the New Normal era, addressing critical gaps in existing tourism theory and practice. Through integration of established destination competitiveness theory with Active Aging principles and Thailand's proven New Normal strategies, the framework provides practical guidance for destination managers, policy makers, and tourism service providers.

The empirical validation through mixed-method research demonstrates the model's practical relevance and implementation potential. Quantitative findings from 400 elderly tourists provide strong evidence for each framework component, while expert validation confirms appropriateness and comprehensiveness for elderly recreational wellness tourism development.

This research offers significant contributions to the field. It provides the first comprehensive framework to integrate destination competitiveness theory with Active Aging principles and New Normal requirements, thereby offering a valuable template for specialized tourism segment development. The study delivers robust quantitative and qualitative evidence supporting the framework's validity and practical applicability in real-world tourism contexts. Furthermore, it successfully incorporates Thai cultural elements, demonstrating how universal tourism principles can be effectively adapted to specific cultural environments, and provides a practical policy framework for government agencies, destination managers, and service providers in developing elderly recreational wellness tourism products and services.

The model's application to Chiang Mai demonstrates strong destination potential while identifying specific areas requiring development. High safety and infrastructure scores provide solid foundations, while lower wellness package scores indicate significant development opportunities. The framework's emphasis on safety, personalization, accessibility, responsibility, knowledge, local integration, and enablers addresses the specific needs of elderly tourists while promoting sustainable tourism development.

The success of elderly recreational wellness tourism development requires collaborative efforts among government agencies, tourism service providers, healthcare institutions, and local communities. The SPARKLE Model provides the conceptual foundation for such collaboration, offering a shared framework for understanding and addressing the complex requirements of this growing tourism segment.



As the global population ages and post-pandemic travel preferences continue to evolve, frameworks like SPARKLE will become increasingly crucial for destinations worldwide seeking to develop sustainable, inclusive, and meaningful tourism experiences.

This research establishes that elderly recreational wellness tourism, when properly developed using comprehensive frameworks like SPARKLE, can simultaneously achieve multiple objectives: promoting active aging among elderly populations, supporting sustainable tourism development, and generating economic benefits for destination communities. This alignment of social, environmental, and economic benefits positions elderly recreational wellness tourism as a particularly valuable form of tourism development for the future.

Discussion

Demographic and Behavioral Patterns Research findings reveal important demographic and behavioral patterns among elderly health tourists in Chiang Mai. The predominance of female tourists (52.5%) aligns with national statistics showing more elderly women than men in Thailand (Department of Provincial Administration, 2023). The concentration of tourists in the 60-64 age group (56.7%) suggests this demographic represents the most active and mobile segment of elderly tourism. The strong domestic tourism pattern, with 71% of respondents from Northern Thailand and Chiang Mai Province, reflects the success of Thailand's domestic tourism promotion strategy during the pandemic. This finding supports TAT's emphasis on domestic tourism as a foundation for recovery, allowing Thai tourists to "feel confident about their first travel choices around the Kingdom after the COVID-19 situation eases" (TAT, 2020).

Health Awareness and Safety Compliance The high levels of both health awareness (M=4.24) and safety practice (M=4.21) demonstrate successful implementation of Thailand's health communication strategies. These findings align with Thailand's exceptional pandemic response, which earned the country 5th place globally in the 2021 Global Health Security Index and 1st place in COVID-19 recovery according to the Global COVID-19 Index. The strong compliance with physical safety measures (M=4.41 for mask wearing, M=4.35 for hand hygiene) demonstrates a high level of health consciousness and adherence to visible, tangible precautions. This contrasts with the moderate adoption of health tracking applications (M=3.66), revealing a nuanced challenge in digital integration among elderly populations. This disparity suggests that while elderly individuals are highly aware of health risks and willing to comply with established



safety protocols, they may face barriers related to technology familiarity, app complexity, or a preference for traditional methods of self-monitoring. This finding underscores the critical need for the Knowledge component in the SPARKLE Model, emphasizing that effective 'Knowledge' transfer must extend beyond mere awareness to include user-friendly technology support, targeted digital literacy training, and the design of digital tools that are specifically tailored to the abilities and preferences of older adults.

SPARKLE Model Validation Through Empirical Evidence Quantitative findings provide strong empirical support for each SPARKLE Model component: Safety (S): The high safety awareness scores (M=4.24) and excellent infrastructure safety ratings (M=0.92) validate safety as the foundational component. Elderly tourists' prioritization of safety (30.8% citing it as a travel motivation) confirms Kim, H. et al.'s (2015) findings about safety concerns in senior tourism. Pleasure (P): High satisfaction with traditional tourism behaviors (M=4.28) and strong repeat visitation patterns (29.5% with 4+ visits) indicate successful pleasure delivery. The variety of popular destinations (temples 73.3%, parks 43.0%, natural attractions 37.3%) demonstrates diverse pleasure preferences among elderly tourists. Attractiveness and Amenities (A): Strong infrastructure scores for amenities (M=0.74) combined with beautiful scenery as the top motivation (64.3%) validate the dual focus on attractions and supporting facilities. The moderate wheelchair service availability (M=0.57) highlights areas requiring improvement. Responsibility (R): High compliance with cleanliness behaviors (M=4.28) and environmental measures demonstrates elderly tourists' strong sense of responsibility. This finding supports sustainable tourism development principles within the framework. Knowledge (K): Moderate digital adoption (M=2.95) reveals both opportunities and challenges in knowledge transfer. The variation in app usage (from M=2.47 to M=2.98) indicates differential technology acceptance, supporting the need for targeted knowledge programs. Linkage (L): Strong infrastructure coordination scores (M=0.80) for access routes and supporting services demonstrate effective linkage between tourism stakeholders. The comprehensive service coverage across 10 SHA-certified service types shows systematic linkage implementation. Enablers (E): Government policy success in promoting domestic tourism and achieving high safety standards demonstrates effective enabling environment creation. Thailand's ranking achievements in global health security provide evidence of strong institutional enablers.



Comparison with Existing Literature These findings extend and validate previous research in several important ways. The high safety prioritization confirms Kim, H. et al.'s (2015) identification of safety as a primary concern for elderly tourists. The strong preference for familiar, accessible destinations supports accessibility research while revealing cultural specificity in destination choices. The moderate digital adoption findings contribute new insights to elderly tourism technology research. While previous studies often assumed technology avoidance among elderly populations, this research reveals selective adoption patterns, with higher usage for practical applications (online booking $M=3.04$) compared to complex tracking systems (health apps $M=3.66$). The integration of recreational wellness tourism with cultural tourism (temples 73.3% popularity) demonstrates unique characteristics of elderly tourism in Buddhist cultural contexts, extending Fan et al.'s (2024) value co-creation concepts to include cultural and spiritual dimensions.

New Normal Tourism Adaptation The research reveals successful adaptation to New Normal tourism requirements among elderly tourists. High compliance with safety measures combined with moderate technology adoption suggest elderly tourists can successfully navigate post-pandemic tourism environments with appropriate support systems. The preference for private transportation (70.8%) and small group travel (67.5% with family) aligns with New Normal preferences for "less travelling, smaller gatherings, avoiding crowds" (TAT, 2020). This behavioral adaptation supports the sustainability of elderly tourism in post-pandemic contexts.

Chiang Mai as an Elderly Recreational wellness tourism Destination Findings confirm Chiang Mai's strong potential for elderly recreational wellness tourism development. The high overall destination assessment score ($M=0.74$) indicates solid foundation infrastructure and services. However, the lower scores for specialized health and wellness packages ($M=0.51$) reveal significant development opportunities. The combination of strong cultural attractions (temples 73.3% popularity) with established healthcare infrastructure (documented by Aung, M.N. et al., 2022) creates unique value propositions for elderly recreational wellness tourism. The city's UNESCO Creative City designation provides additional cultural foundation for experience-based tourism development.

New Knowledge form Research



The final SPARKLE Model as shown in Figure 2 presents the complete framework with all seven validated components and their interconnections for elderly recreational wellness tourism development in the New Normal era. [Figure 2 Description - minor rephrasing for flow and conciseness]:



Figure 2: The Complete SPARKLE Model Framework for Elderly Recreational wellness tourism in the New Normal Era.

The model integrates seven core components: Safety & Security (S), Pleasure (P), Attract amenities (A), Responsibility (R), Knowledge & Learning (K), Linkage (L), and Enablers (E). Each component is validated through expert review and empirical research with 400 elderly tourists in Chiang Mai Province.

Research Suggestions

Suggestions of Implications and Future Research

1. Theoretical Implications The SPARKLE Model makes several theoretical contributions to tourism research. The model successfully integrates Buhalis's (2000) destination competitiveness



theory with Active Aging principles and New Normal requirements, demonstrating how established frameworks can be adapted for specialized segments. This framework offers a novel template for future research on niche tourism market development. The incorporation of Thai cultural elements (Buddhist philosophy, community values, traditional hospitality) shows how universal tourism principles can be contextualized for specific cultural environments, enriching the understanding of culturally adaptive tourism models. The framework advances understanding of elderly tourism as a distinct segment requiring specialized approaches rather than general tourism adaptations. Furthermore, the integration of New Normal requirements provides a model for incorporating health security considerations into traditional tourism frameworks, contributing to post-pandemic tourism theory.

Practical Implications For destination management organizations, the SPARKLE Model provides:

-Implementation Guidelines: Clear structure for developing elderly recreational wellness tourism products with specific focus areas and measurable outcomes.

-Quality Standards: Benchmarks for service quality and safety in elderly tourism, based on empirical evidence from successful implementations.

-Community Engagement Models: Approaches for meaningful local community involvement in elderly tourism development, supporting sustainable tourism principles.

-Crisis Management: Frameworks for managing health emergencies and travel disruptions specifically relevant to elderly tourists.

Policy Implications The research provides several important implications for policy makers and destination managers: Government agencies can utilize the framework for:

Infrastructure Development: While basic infrastructure scores well, specialized elderly facilities require enhancement. Wheelchair services (M=0.57) and Wi-Fi connectivity (M=0.52) need improvement to fully support elderly tourism.

Product Development: The low scores for health and wellness packages indicate urgent need for specialized product development. Traditional massage services (M=0.45) and wellness programs require significant enhancement to meet elderly tourist expectations.



Technology Integration: The moderate digital adoption patterns suggest need for graduated technology introduction with strong support systems. Successful apps like Khon La Khrung (M=2.98) provide models for effective elderly-friendly technology design.

Safety Communication: The high safety awareness and compliance demonstrate effective communication strategies that can be replicated in other contexts. The D-M-H-T-T-A framework provides proven approaches for recreational wellness tourism safety management.

Regulation Development: Standards for elderly tourism service providers based on empirical evidence of tourist needs and preferences.

Infrastructure Planning: Guidelines for accessible tourism infrastructure development informed by actual usage patterns and satisfaction scores.

Health System Integration: Models for connecting tourism and healthcare services to support recreational wellness tourism development.

Community Development: Policies supporting tourism-based community development that includes elderly-specific considerations.

Suggestions Future Research Directions

Longitudinal Studies

Future research should conduct longitudinal studies tracking elderly tourist behavior and destination development over time. This would provide insights into how preferences and requirements change as tourists age and as destinations evolve.

Comparative Analysis

Comparative studies across different cultural contexts would validate the SPARKLE Model's transferability and identify culture-specific adaptations required for implementation in other destinations.

Technology Integration Research Detailed research on technology adoption patterns among elderly tourists could inform development of more effective digital solutions. Investigation of successful technology implementations could guide future innovation.

Economic Impact Assessment Economic impact studies of specialized elderly tourism development would quantify benefits and costs, supporting investment decisions and policy development.

6.4.5 Health Outcome Studies Research measuring actual health outcomes from



elderly recreational wellness tourism experiences would provide evidence for tourism's contribution to Active Aging objectives.

Research Limitations

1. Geographical and Cultural Limitations This study focuses primarily on Chiang Mai Province, Thailand. While the principles may be transferable, cultural and infrastructure differences may limit direct application to other destinations. The Thai cultural context, including Buddhist philosophy and traditional hospitality practices, provides specific advantages that may not exist in other settings.

2. Demographic Specificity The framework addresses elderly tourists as a general category without detailed segmentation by health status, economic level, or cultural background. Future research should explore sub-segments within the elderly tourism market to provide more targeted guidance.

3. Temporal Limitations The study was conducted during specific time periods that may not represent all seasonal variations in elderly tourism patterns. Additionally, the post-pandemic context continues to evolve, potentially requiring framework adaptations as health protocols and tourist expectations change.

4. Methodological Limitations **Cross-sectional Design:** The study cannot establish causality between framework components and tourism outcomes. Longitudinal research would provide stronger evidence for causal relationships. **Convenience Sampling:** While a robust multi-stage sampling method was employed to select target areas, the final stage of tourist recruitment at specific attractions involved convenience elements. This approach, while practical for reaching the target population, means that the generalizability of findings to the broader, diverse elderly tourist populations across all of Thailand or other regions may be somewhat limited. Future studies could explore probability sampling methods across a wider range of tourist sites to enhance external validity. **Self-reported Data:** Questionnaire responses may be subject to social desirability bias, particularly regarding safety compliance and technology usage. **Expert Panel Size:** The five-expert panel, while providing valuable insights, could be expanded to include broader perspectives and expertise areas.

5. Implementation Complexity The comprehensive nature of the SPARKLE Model may present implementation challenges for destinations with limited resources or infrastructure.



Phased implementation strategies may be necessary, but the research does not provide detailed guidance for resource-constrained environments.

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