

Mohammed Ali Sharafuddin Chiang Mai University

Meena Madhavan Chiang Mai University

Measurement Model for Assessing Community Based Wellness Tourism Needs

The concepts of involving the local community in offering tourism activities at commercial tourist destinations and community based tourism entirely developed by communities in rural areas are widely accepted and adopted in developing nations for even distribution of tourist flow and wealth towards the local community. The same has been widely studied in tourism research. On the other hand, the sense of well-being is on the rise, which eventually has an impact on the tourism industry, especially on tourist destination choices based on activities and services available at a tourist destination. Wellness tourism, though not new by the concept but relatively less explored in tourism research, is growing rapidly and is being redefined in recent years. Following the trend and positioning community based tourism activities to attract the wellness tourism market may bring more new opportunities for achieving sustainable success in community based tourism. This research aims to define community based wellness tourism and to develop and validate a measurement scale for understanding potential tourists' need towards community based wellness tourism. The scale was developed with six factors, viz., physical, emotional, spiritual, social, mental, and environmental wellness. The purposive sampling method was used to collect data from 386 residents of Bangkok city. The results of the empirical research reveal that the model is valid and reliable. The model can be used by hosting communities, researchers, and policy-makers involved in community based tourism to understand and assess the wellness needs of potential tourists and develop wellness tourism-related projects, services, and activities.

Keywords: community based tourism, wellness tourism, community based wellness tourism, Tourist needs, measurement model

Dr. Mohammed Ali Sharafuddin College of Maritime Studies and Management Chiang Mai University 119/76, Moo 1 Ekkachai Road Tha Chin Samut Sakhon 74000 Thailand Email: <u>s_mohamedali@yahoo.com</u>

Dr. Meena Madhavan College of Maritime Studies and Management Chiang Mai University 119/76, Moo 1 Ekkachai Road Tha Chin Samut Sakhon 74000 Thailand Email: <u>meena2priya@gmail.com</u>



Mohammed Ali Sharafuddin is lecturer of management and marketing at the College of Maritime Studies and Management, Chiang Mai University with an interest in Coastal, Marine and Maritime Tourism. His current research focuses on the sustainable development of coastal and island communities through community based wellness tourism.

Meena Madhavan is lecturer of management and supply chain at the College of Maritime Studies and Management, Chiang Mai University with an interest in statistical modeling for SME business operations. Her current research focuses on developing measurement models for services supply chain.

Introduction

Consumer psychology for the tourism and hospitality industry is unique at all three stages, viz., pre-purchase, purchase and acquisition, and post-purchase (Arnould, Price & Zinkhan, 2002). Choosing the suitable destination and relevant activities among the available choices during the pre-purchase stage is a complex, time-consuming process, and it happens well before the purchase stage (Crouch, Perdue, Timmermans & Uysal, 2004). It plays a significant role in tourist destinations and activities related to decision-making processes. Hence, tourist motivation related research is common among academicians and scholars. However, both motivation and motivation research are generalized words used interchangeably to mention studies that focus on motives ("push" factors or internal drives), needs (materialization of motives), wants (manifestation of the need), and benefits (positive results of the decision) (Pizam, Chon, & Mansfeld, 1999). The internally generated urge leads to needs and motives, which further forms the motivation combined with situation and value, leading to perception towards a destination (Gnoth, 1997). This process of motivation and expectation formation was widely accepted and adopted by researchers. Hence, it is essential for tourism marketers to understand the needs and motives of the potential tourist market in the pre-purchase stage for strategically developing appropriate attractions, reliable access

along with suitable accommodation, amenities, and awareness in their destination to "pull" the tourists.

On the other hand, two themes - community based tourism and wellness tourism are emerging and evolving with their objectives along with a special focus on their target markets. Although, research on either understanding the needs of the urban wellness tourism market or positioning rural community based tourism as a suitable solution for urban wellness tourism market needs is few and far between. Hence, the purpose of this study is to develop a measurement scale to understand the pre-purchase phase needs of potential tourists towards both wellness tourism and community based tourism. The scale would be validated for further applications in tourist behavior research concerning wellness tourism and community based tourism, hereafter called "community based wellness tourism needs (CBWTN) scale."

Literature Review

Wellness

Since the 1950s, the concept of wellness was researched and defined by various authors. The term 'wellness' was popularized by Dr. Halbert L. Dunn. "*It is conceptualized as dynamic- a condition of change in which the individual moves forward, climbing toward a higher potential of functioning.*" He further defined high-level wellness as, "*High-level wellness for the individual is defined as an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable, within the environment where he is functioning*" Dunn (1959). Dr. Travis, one of the wellness pioneers, created a wellness assessment inventory (Travis, 1975) based on three key concepts viz., Illness - wellness continuum, Iceberg model of health, and wellness energy system (Travis & Ryan, 1981, 1988 &, 2004). Since then, wellness was conceptualized in different contexts such as



Psychology and wellness counseling (Myers, Sweeney, & Witmer, 2000), physical appearance (Illing, 1999), degree of positive feeling and enthusiasm towards life (Manderscheid, Ryff, Freeman, McKnight-Eily, Dhingra, & Strine, 2010), counseling and spiritual wellbeing (Myers & Williard, 2003). Various authors defined wellness in their context. However, none of them is well suited to be adopted as a uniform global definition of wellness due to its complex nature. The most reliable definitions can be based on the multidimensional approaches first devised by Hettler (1976) and later adopted by various researchers, which defines wellness on physical, spiritual, psychological, social, emotional and intellectual dimensions (Hettler, 1984; Adams, 1995; Corbin & Pangrazi, 2001). However, defining the concept of wellness is still evolving due to its complex nature.

Wellness Tourism

Traveling for seeking religious, spiritual, mental, and physical pleasure has been in practice and well documented throughout history, especially in Asia. In modern days, the concept of wellness tourism is promoted as part of medical/health tourism by government organizations, destination management companies, and promotion agencies, leading to confusion for consumers. The choices of medical travelers and wellness travelers are well figured out by researchers in recent years. Both medical and wellness tourism address different consumer needs and operate on completely different infrastructure and stakeholders (Sharafuddin, 2015). Medical tourists travel to cure disease, health checkups, and certain disease prevention, whereas tourists in the wellness group are proactive in nature and travel for the specific kind of disease prevention and to maintain health. Hospitals provide the core services for medical tourists, whereas beauty spas, lifestyle resorts, and spiritual retreats serve wellness tourists. Wellness tourism is specifically referred to as the travel by individuals with a motive to maintain/promote their health by staying at least a night at the facilities, which are particularly designed for the individuals to holistically enhance any one or more than one



of the several factors viz. physical, psychological, spiritual, and social well-being. Ideally, it also considers community wellness and the environment in a sustainable manner (Voigt, 2013). The appeal and success of medical tourism are based on the national visa policies, advancement level, and standards of medical infrastructure, cost of treatment, and insurance framework. On the other hand, the attractiveness and sustainable growth of wellness tourism are mainly based on tourists and community mindsets. Hospitality, recreation, and leisure play a vital role in developing wellness tourism (Global Wellness Tourism Institute, 2018). Conversely, ASEAN countries like Thailand, Malaysia, Singapore, and the Philippines cross-promote wellness and medical tourism. In the past decade, Thailand has been battling to overcome its negative image of sex, alcohol, and nightlife tourism. Its smoking ban on Thai beaches, public places, and six major airports are one of the many proactive initiatives to promote Thailand as a wellness tourism destination. (Six Thai airports declared no-smoking zones from 3 February 2019, 2019). The kingdom was the only ASEAN country in the top 15 wellness tourism destination markets in 2017, ranked 13, followed by Malaysia ranking 18.

Global Wellness Institute (GWI) segments wellness travelers as primary and secondary wellness travelers based on their travel motivation. The first segment's main travel motivation is to seek wellness-related services, and they choose the destination based on the services offered at the destination. Spa retreats build in natural environments, and tourists visiting those retreats purely for wellness purposes is an example of a primary wellness traveler. Whereas, secondary wellness travelers are travelers who always seek and maintain wellness wherever they go (Global Wellness Tourism Institute, 2018). A Muslim traveler seeking halal food to satisfy his physical needs and a clean place for offering prayer to satisfy his spiritual needs; a young adult traveler seeking soft adventure activities and an eco-spa to satisfy his physical needs; a family spending half-a-day of their trip in meditation to satisfy their mental needs; are some of the examples of secondary wellness travelers.



According to the Global Wellness Tourism Institute (2018), the secondary wellness tourists account for 89% and 86% of wellness tourism trips and expenses in 2017, respectively. Hence, understanding these consumers' profiles and their needs is one of the essentials for destination marketers. In their study, Voigt, Brown & Howat found that the motivation factors for wellness tourism are unique. Though they share the common factors such as "physical health and appearance"; "important others and novelty"; "transcendence"; "re-establish self-esteem"; "escape and relaxation"; and "indulgence," they are unique due to the connecting theme of self-transformation (Voigt, Brown, & Howat, 2011). The success of wellness tourism destinations depends on understanding tourists' preconceived subjective health benefits and offering suitable services. Preconceived health benefits are not just scientific but are more holistic. Chang & Beise-Zee, (2013) used a generic 28 variables construct to measure the health perceptions of tourists visiting hot springs in Taiwan and found that "harmonious relationship," "relaxation," "green view," "something natural," "positive emotions," "keeping proper body shape," "simple lifestyle," "routine life," "something organic" and "companionship" as the top 10 themes of perceived health. Boulay, Hritz, and Nancy (2016) used one of the widely accepted "push-pull theory" (Dann, 1977; 1981; Uysal and Jurowski, 1994; Gnoth, 1997; Jang and Cai, 2002; Hsu and Huang, 2008; Hsu and Lam, 2003) along with the 17 scale DUKE health profile (Parkerson Jr, Broadhead, & Tse, 1990) to investigate and compare the wellness travel motivations of international and US travelers using "mental," "physical," and "social" wellness. Their results revealed that the internal motivators were significant predictors in measuring perceived wellness. However, these researches have their limitations, like the demographic profile of the respondents, destination attributes, and research objectives. Even though Thailand is ranked top as a wellness destination, positioning "wellness" as a "pull" factor in destination marketing is scarce (Pongwat, 2017). There is also limited academic literature available in



this context. Kanittinsuttitong (2018) studied the market demand and capacity of wellness tourism in Thailand and found that the demand for tourism is based on "physical," "mental," and "spiritual" well-being and may diversify based on lifestyle. The author also found that 1. the wellness tourism services differ based on regions of Thailand viz., peace of mind and mental therapy (North), relaxation of body and mind along with local culture experience (Central), active activities (South), relaxing under the rush (Bangkok), 2. There is a gap between the demand and supply of services related to physical, spiritual, and mental needs. Further, the global wellness tourism institute (2018) also classified the choices of wellness travelers as physical, mental, spiritual, emotional, environmental, and social dimensions with holistic values-driven activities such as health, spa & beauty, mind-body, spiritual & connection, personal growth, eco & adventure, fitness, and healthy eating.

Community Based Tourism

The tourism industry's positive and negative impacts have been widely discussed all along the recent years in literature. Though the hosting country gains economically through tourism, the cost paid in return is in the form of environmental, social, and cultural damage. The uneven spread of wealth is also a significant concern for tourism revenue distribution. The early studies on the sustainability of tourist destinations focused on the carrying capacity concept but failed to address the host community as a stakeholder. Recently, involving the community as a stakeholder was found to be a feasible solution to sustain the destination's environmental and socio-cultural factors. Various community based tourism projects have been launched in the past three decades all around the world. The definitions of community based tourism also vary between countries and regions based on policies, implementations, and practices (Boonratana, 2010). Though each community may distinguish some unique characteristics, the literature on community based tourism treats the community as a homogeneous block (Blackstock, 2005). In research on finding the life cycle expectancy of



community based tourism projects revealed that bottom-up community based tourism projects initiated by the local community grown faster, flourished longer, and had a higher positive impact on the local community than the top-bottom community based tourism projects designed and funded by external organizations (Zapata, Hall, Lindo, & Vanderschaeghe, 2011).

Community Based Tourism in Thailand

In Thailand, Community based tourism, under a broader umbrella of Thai selfsufficiency economy and sustainable tourism, has seen a remarkable widespread adoption since the late 1990s. Various Government and Non-Government organizations support developing community based tourism in various cultural and rural environments. However, the lack of standard terminologies, operational definitions (Boonratana, 2010), and marketing strategies (Leksakundilok and Hirsch, 2008) were the weak points in the sustainability of such community-based tourism projects. Overcoming those weaknesses is complex due to the vast diversity of tourism projects, products, and services offered (Connell & Rugendyke, 2008). The offerings range from simple handmade products from suburban communities to remote island homestay ecotourism experiences. Boonratana (2010) defined Communitybased tourism in Thailand as "economically, environmentally, socially, and culturally responsible visitation to local/indigenous communities to enjoy and appreciate their cultural and natural heritage, whose tourism resources, products, and services are developed and managed with their active participation, and whose benefits from tourism, tangible or otherwise, are collectively enjoyed by the communities." However, this definition is limited to nine International academic definitions and ten community based destination in Thailand. In reality, it is much more complicated to frame a universal common definition for community based tourism in Thailand. Due to such difficulties, the sustainability of the community based tourism projects and their collective benefits to the community are



uncertain (Boonratana, 2010; Kontogeorgopoulos, Churyen & Duangsaeng, 2014). So, recently scholars adopted the ASEAN definition for community based tourism "tourism activity, community owned and operated, and managed or coordinated at the community level that contributes to the well-being of communities through supporting sustainable livelihoods and protecting valued socio-cultural traditions and natural and cultural heritage resources" (ASEAN, 2016), and further developed some refined names and definitions such as "community tourism," "community based ecotourism," "community-based tourism," "community based cultural tourism," "community based rural tourism," "community based agro tourism," "community based health tourism" and so on. The major objectives were to differentiate and position the products and services offered by the host communities towards the target markets. Hence, community based wellness tourism can be defined as "wellness-related tourism products and services developed, managed and offered by the local communities." In this context, the demand-side potential and supply-side capacity of wellness services in community-based tourism (community based wellness tourism) remain unexplored.

Community Based Wellness Tourism

The increasing global awareness of "well-being" brings potential benefits to the hosting community at a tourist destination (Page et al., 2017). The Office of the National Economic and Social Development Board (n.d.) identified the importance of both community based tourism and wellness tourism and included them in the Twelfth National Economic and Social Development Plan (2017-2021) in Thailand. However, they are strategically positioned to attract different market segments. Wellness, along with health tourism for the international medical tourism market and community based tourism for the domestic tourist market. There is limited research from scholars in Thailand with an integrated view towards "community based wellness tourism." Maneenetr, Naipinit, & Tran (2014, 2015) found that



both attractiveness of wellness as a destination image among visitors and the host community's attitude towards welcoming tourists are high in Thailand. Chuamuangphan (2016) assessed the outcomes of community based health tourism in hot spring destinations maintained by local communities and found them to be successful. Siriwan (2019) analyzed the potential of a small coastal village in hosting community based health tourism services and found that the destination has high potential but lack of various factors, including promotional plans. Khlaikaew, Buakwan & Chaiyakot (2017) applied the '4Ps' of marketing approach for assessing the marketing strategies of community based tourism and found that using standard marketing practices brings more benefits to the community, but still working together with other stakeholders can attract more visitors to the destination. However, these studies focus more on the destination point-of-view (supply-side) and lack in assessing the market's wellness needs (demand side).

Research Gap

Tourist motivation, wellness, wellness tourism, and community based tourism are widely studied in academic research. However, the demand-side studies on potential tourists' intention towards engaging in community based wellness activities have gained little attention in academia. Hudson, Thal, Cárdenas, and Meng (2017) used the theory of planned behavior (TPB) framework to assess the influential factors of potential wellness travelers and found that involvement positively influences the behavioral intention for visiting the facility. However, the context of potential tourists' motives in the pre-purchase stage towards community based wellness tourism has not been studied. Therefore, the purpose of this study, i.e., "to develop a measurement scale to understand the community based wellness tourism needs in a pre-purchase phase of potential tourists," is to fill the gap in research and literature. Further, the initiative may also lead to developing more measurement scales and models for



the purchase, acquisition, post-purchase stages, and supply side of wellness tourism and community based wellness tourism.

Research Design

The target population of the study is the potential tourists residing in Bangkok. Hence, the sampling frame of the study is Bangkok (the Capital city of Thailand). The sampling method adopted for the study is purposive sampling, and the data was collected from the Bangkok residents over the age of 18 with an intention to go for a domestic vacation within a year.

The main focus of the study is to understand and develop the measurement instrument for factors determining community based wellness tourism. The qualitative inquiry was conducted with eight subject matter experts, including three tourism professionals working in the industry, three experts from the wellness domain, and two academicians from the tourism area to uncover the factors determining community based wellness tourism. Based on the literature, six different types of wellness were identified viz. 1. Physical wellness, 2. Emotional wellness, 3. Spiritual wellness, 4. Social wellness, 5. Mental wellness, 6. Environmental wellness. Later, the instrument was developed related to the major theme of the study with the above-mentioned six factors, including 32 items. It was ensured that the constructs are adequate and measure the exact theme of the research. The experts were clearly explained the objective/theme/domain of the research. They were asked to evaluate the constructs concerning the concept, domain, suitability, and its practical applicability. The experts assessed constructs based on the criteria mentioned above and suggested removing a few items that do not fit for the current study. They also analyzed the readability as well as the stability of the constructs; thus, finally, the refined scale consisted of 24 items. The necessary suggestions provided by the experts were included in the study. Later, a pilot study



was conducted with 30 respondents with 24 scale items to measure the correlation among the constructs. The coefficient of correlation score <0.4 was deleted from the scale. Finally, the measurement scale consisted of 21 items in total, 4 items for Physical wellness, 3 items for Emotional wellness, 3 items for Spiritual wellness, 3 items for Social wellness, 4 items for Mental wellness, and 4 items for Environmental Wellness. The 5-point Likert scale was adopted for the study (5- most likely, 4- likely, 3- undecided, 2- unlikely, 1- most unlikely). As the population size was unknown, the sample size was estimated based on the previous literature. Gorsuch (1983) and Kline (1979) recommended a minimum of 100 samples as a rule of thumb, whereas MacCallum, Widaman, Zhang, & Hong (1999) mentioned that employing a higher sample size in a study would reduce the sampling error and yields good factorial representation. It is understood from the prior studies on estimating sample for factor analysis; it is suggested that the sample size of 170 is sufficient to yield good results. Gautam (2015) mentioned that there should be at least 3 observed variables per factor to get a good fit for CFA. The respondents of the study were potential domestic tourists. Hence, the questionnaire was also translated into the local language (Thai) to gain a better understanding. However, both the English and Thai versions of the questionnaire were made available to the respondents for their convenience. The respondents were clearly explained about the objective of the research. Two screening questions of "Do you go for vacation regularly and have the intention to go for a vacation in 2019?" and "how long will be your planned length of stay" were used to identify the potential tourists. The first one was to help the respondents self-identify themselves as potential tourists, and the second one was to avoid the inclusion of excursionists/day travelers in the survey. The data was collected through the survey method in December 2018 & January 2019. The researchers circulated 500 questionnaires and received 405 responses. However, only 386 responses were found to be valid and usable, which is greater than the recommended sample size of 384 for the infinite



population (Krejcie & Morgan, 1970). Initially, all the items with 386 samples were subjected to exploratory factor analysis with varimax rotation. The six-factor structure was estimated with 66.61 percent total variances explained and displayed a KMO measure of sampling adequacy score of .838. Thus, this indicates that the sample size is sufficient to conduct the study. The results are presented below in two sections: I. Descriptive Statistics and II. Confirmatory Factor Analysis.

Analysis and Discussion

Descriptive Statistics

Table-1 shows that the majority of the respondents who took part in the study are female (69.7%). The majority of respondents were in the age group of 33-40 (30.8%) and 26-32 (29.5%), followed by the respondents in the age group of 18-25 (21.8%), 40-50 (9.6%), and above 50 (8.3%) respectively. The education level of the respondents indicated that the majority of them qualified undergraduate level (62.2%), followed by post-graduation (27.7%), high school (5.4%), and others (4.7%). Further, most of the respondents who participated in the study are working professionals, around 67.9%, followed by the students (17.9%), homemakers/not working (8.0%), and the rest of them in other categories. A significant proportion (64.5%) of the respondents plan to stay at the destination for 1ess than 3 days, followed by 29% of the respondents plan to stay at the destination for 6-7 days and more than a week.

Demogra	Frequency	Percent	
Gender	Male	117	30.3
Female		269	69.7

Table 1	1: I	Descriptive	Statistics
---------	------	-------------	-------------------



	Total	386	100
Age	18-25	84	21.8
	26-32	114	29.5
	33-40	119	30.8
	40-50	37	9.6
	Above 50	32	8.3
	Total	386	100
Educational	High School	21	5.4
Quanneation	Undergraduate	240	62.2
	Post Graduate	107	27.7
	Others	18	4.7
	Total	386	100
Profession	Working Professional	259	67.1
	Business Owner	26	6.7
	Student	69	17.9
	Housewife/Not Working	31	8
	Retired	1	0.3
	Total	386	100
Planned	Less than 3 days	249	64.5
Length of Stay	3-5 days	112	29
	6-7 days	22	5.7
	More than a week	3	0.8
	Total	386	100



Confirmatory Factor Analysis

Results of Measurement Model

Confirmatory factor analysis was performed to validate the community based wellness tourism measurement model by testing composite reliability, convergent validity, and discriminant validity. The CFA helps to understand the representation of observed variables in the latent factor. The CFA was performed using the R programming language (version 3.6.1) and the Lavaan package (version 0.6-4) in JASP computer software (version 0.10.2).

Results of Reliability and Convergent Validity

The reliability of the measurement model was assessed using Cronbach's alpha, Composite Reliability, and Average Variance Extracted. Firstly, in order to measure the internal consistency of the scale, Cronbach's alpha values were considered, and the values for the six latent factors were ranging from 0.70 to 0.84 (Table no.2), which is greater than 0.7 as suggested by Nunnally (1978) & Nunnally and Bernstein (1994) thus indicates good reliability. Secondly, Composite Reliability was calculated using the estimates of standard factor loadings and variance explained by the item constructs of the measurement model. The composite reliability values ranging from 0.72-0.84 (Table 2 and 4) indicates that the model holds good reliability. Moreover, this is also a good indicator of convergent validity, where it would meet the cut-off criteria of AVE>0.5. Further, Average Variance Extracted (AVE) was calculated using the estimates of standardized loadings, which satisfies the threshold levels (Refer Table 2), i.e., AVE>0.5 and Composite Reliability>AVE (Hair, Black, Babin, and Anderson, 2010). However, for the few latent factors, the values of AVE are 0.5, which is acceptable as the values are nearly closer to a threshold level and also the values of composite reliability are greater than 0.6, as suggested by Fornell and Larcker (1981). The standard factor loadings for all the items are greater than 0.5 and found to be significant at p-value less



than 0.05 levels, with z-values ranging from 8.845 to 19.274 (Table 4). Hence, the results of the model indicate evidence of convergent validity.

Latent Factors	Cronbach's Alpha	Composite Reliability (>0.6)	Average Variance Extracted (AVE>0.5)
Physical	0.77	0.78	0.50
Emotional	0.70	0.72	0.50
Spiritual	0.81	0.82	0.60
Social	0.78	0.83	0.63
Mental	0.84	0.84	0.58
Environmental	0.76	0.77	0.50

 Table 2: Reliability and AVE Values

Results of Discriminant Validity

The wellness tourism constructs might be closely related; hence, it is imperative to estimate the discriminant validity. This study utilized the approaches suggested by Fornell and Larcker (1981) to estimate the discriminant validity. The discriminant validity analyzes how well the factors are distinct and uncorrelated. The discriminant validity was assessed by utilizing the correlation estimates of latent factors from CFA. The inter-construct correlations and AVE values were considered to analyze the discriminant validity. Based on the estimates, the Maximum Shared Variance, Average Shared Variance, and Square root of Average Shared variance was calculated. The results indicated that MSV<AVE, ASV<AVE, and the Square root of AVE is greater than inter-construct correlations. The results confirmed the evidence of discriminant validity by satisfying the threshold levels recommended by (Hair et al., 2010). Table 3 indicates that the composite validity is greater than the recommended level of 0.7 (Hair et al., 2010), and the square root of AVE is greater than the correlations between the constructs, which implies that all items measured the same construct.



Latent Factors	Composite Reliability	Physical	Emotional	Spiritual	Social	Mental	Environmental
Physical	0.78	0.71					
Emotional	0.72	0.25	0.71				
Spiritual	0.82	0.31	0.19	0.78			
Social	0.83	0.33	0.50	0.27	0.79		
Mental	0.84	0.31	0.50	0.29	0.51	0.76	
Environmental	0.77	0.15	0.19	0.08	0.18	0.245	0.71

Table 3: Discriminant Validity Matrix

Table 4: Results of Measurement Model

	Results of C	Confirmat	Reliability t	est results			
Variables	Standard Solutions	Factor Estima tes	z- value	Variance	R2	Composite Reliability	Average Variance Extracted (AVE)
Physical						0.78	0.50
Soft Adventure Activities	0.581	1.205	8.845	0.72	0.338		
authentic local food	0.842	1.541	10.650	0.36	0.709		
Proper Sleep	0.717	1.233	10.122	0.53	0.514		
Nutrition, weight loss, detoxifying programs	0.583	0.830	8.856	0.49	0.340		
Emotional						0.72	0.50
Visit local arts, cultural shows and exhibitions	0.730	1.023	11.826	0.33	0.533		
Participate in life skill	0.544	0.804	9.239	0.59	0.296		



programs							
Empathy towards the local community	0.746	0.977	11.841	0.29	0.557		
Spiritual						0.82	0.60
Spiritual healing and well being	0.720	0.813	13.214	0.65	0.518		
Meditation Programs	0.746	1.141	12.805	0.73	0.557		
Spiritual family get together	0.846	1.230	13.231	0.42	0.716		
Social						0.83	0.63
Participate in community based tourism activities	0.913	1.063	12.130	0.10	0.834		
Socialize with local community	0.845	0.970	19.274	0.20	0.714		
Shop Souvenirs from local OTOP	0.583	0.940	12.146	0.89	0.340		
Mental						0.84	0.58
Stress Release	0.597	0.882	10.801	0.48	0.356		
practice mindfulness	0.835	1.633	12.101	0.31	0.697		
mental balancing	0.875	1.896	12.355	0.29	0.766		
Self- awareness	0.698	1.134	10.815	0.36	0.487		



Environme ntal						0.77	0.50
Pollution free environment	0.902	1.534	9.803	0.11	0.814		
Support Conserving nature	0.615	0.683	10.903	0.38	0.378		
Cold Weather	0.607	0.725	10.774	0.45	0.368		
Warm and Hot weather	0.547	0.652	9.816	0.49	0.299		

Overall Model Fit

Table 5 indicates the overall model fit indices. The overall model is fit at $\chi^2_{(174)}$ = 299.606, P=0.00 (<0.05), RMSEA=0.043. All six latent factors yielded good results. The p-value of the measurement model must be greater than 0.05, but this result very rarely occurs in CFA. The researchers consider that the chi-square value has some restrictions due to its sensitivity towards sample size (Bentler and Bonnet, 1980); hence, the other indices could be used to assess the model fit (Hooper, Couglan, and Mullen, 2008). The measurement model satisfies the major threshold levels suggested by Hu and Bentler (1999); the CMIN/DF value of 1.721<3 indicates a good fit. The Goodness of Fit index (GFI) value of 0.931 is >0.90, indicating a good fit (Hooper, Couglan & Mullen, 2008 and Ahire, Golhar, & Waller, 1996). The RMSEA value of 0.043, which is less than 0.08, indicates a good fit as recommended by MacCallum, Browne, and Sugawara (1996). The CFI (0.96) and TLI (0.95) values are greater than 0.95 (Hu and Bentler, 1999) indicates a good fit. Moreover, the NFI value of 0.910 is greater than 0.90, which reconfirms the existence of convergent validity. The RMR (0.041) and SRMR (0.044) values are less than 0.09 and 0.08 (Hu and Bentler, 1999), respectively.



Hence, the measurement model satisfied the major threshold levels, and it indicates the model

is a good fit.

Fit Index	Obtained Value	Threshold Level	Fit Indices
Root Mean square Residual (RMR)	0.041	<0.09	Good fit (Hu and Bentler, 1999)
Standardized Root Mean Square Residual (SRMR)	0.044	<0.08	Good fit (Hu and Bentler, 1999, Garson, 2009)
Goodness of Fit Index (GFI)	0.931	>0.90	Good Fit (Hooper, Couglan and Mullen, 2008; Joreskog and Sorbom 1984)
Parsimony Goodness of Fit Index (PGFI)	0.909	Values close to 1	Good Fit (Threshold levels were not recommended)
Bentler-Bonett Normed Fit Index (NFI)	0.910	>0.90 or >0.95	Good fit (Byrne, 1994; Hu and Bentler, 1999, and Schumacker and Lomax, 1994)
Bollen's Relative Fit Index (RFI)	0.90	Values close to 1	Good fit (Hu and Bentler,1999)
Tucker-Lewis Index (TLI)/Bentler-Bonett Non-Normed Fit Index (NNFI)	0.951	>0.95	Good fit (Hu and Bentler, 1999)
Comparative Fit Index (CFI)	0.960	>0.95	Good fit (Hu and Bentler, 1999)
Root Mean Square Error of Approximation (RMSEA)	0.043	<0.05	Good fit (Browne and Cudeck, 1993)
Bollen's Incremental Fit Index (IFI)	0.960	>0.90	Good fit (Henry and Stone, 1994)
Relative Noncentrality Index (RNI)	0.960	Close to .95	Good fit (Hu and Bentler, 1998)
Hoelter Critical N (CN) alpha=0.05	266.116	≥ 200	Good (Hoelter, 1983; Garson, 2009)
Hoelter Critical N (CN) alpha=0.01	284.843	≥ 200	Good (Hoelter, 1983; Garson, 2009)

Table 5: Model fit Indices



Discussion

The trend of wellness tourism is on the rise. The descriptive statistics show that most of the respondents are female, and major groups of respondents are working professionals in the age group of 18-40 with an undergraduate degree and higher qualifications. This research adopted a purposive sampling method with the respondents who expressed their intention for a vacation within the current year. It has been reported that the majority of 64.5% of the respondents are planning for a vacation only for less than 3 days, i.e., maybe a weekend or long weekend with an additional holiday falling on Friday / Monday. Only a very few, 0.8% of the respondents are planning for an extended vacation.

The measurement scale was developed based on appropriate theoretical support and qualitative inquiries. The six latent variables related to wellness, such as physical, emotional, spiritual, social, mental, and environmental, were identified. The measurement scale constructs were developed accordingly, based on various expert reviews and pilot study. Confirmatory factor analysis was performed to test the CBWTN measurement scale. The measurement scale was tested for validity and reliability, including convergent validity, discriminant validity, and composite reliability. The results of the measurement scale revealed that it meets all the criteria and threshold levels of validity and reliability. Hence, it is proven that the scale is highly valid and reliable. The discriminant validity matrix reported in Table-3 revealed that all the variables are distinct and are strongly related to their own construct, which is also greater than the inter-construct correlations.

Further, the AVE is greater than the inter-construct correlations, which indicates that the correlation within the construct is greater than the inter-construct correlations. All the observed variables and latent factors loaded high in CFA. Also, the model fit indices satisfied all the threshold levels; hence it is evident that the CBWTN measurement model is a good fit.



Conclusion

This research was successful in its attempt to develop a measurement model for understanding community based wellness tourism needs among potential travelers in Thailand. The measurement scale is designed to keep as generic as possible for adoption in other geographical locations. However, the variables must be considered and modified whenever necessary to suit the research designs and objectives. This scale is more appropriate for measuring wellness conscious urban potential travelers' needs, focusing on communitybased tourism. Stakeholders involved in community based tourism can adopt this tool to assess and understand the wellness needs of potential travelers and develop their wellness tourism-related services and activities. Such a proactive approach to understanding the prepurchase target market trend and positioning community based tourism activities to attract the wellness tourism market may bring more new opportunities for achieving sustainable success in community based tourism.

Further directions of future research

Further research on developing and testing measurement models for supply-side analysis, visitor satisfaction, and service quality of community based wellness tourism will lead to the sustainable development of community based tourism. This scale can also be modified and used by the communities to assess the gap between visitor's needs and services provided in their destination.



References

- Adams, T. B. (1995). The conceptualization and measurement of wellness (Doctoral dissertation, University of Texas at Austin, 1995). *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 56(6-B), 3111.
- Ahire, S. L., Golhar, D. Y., & Waller, M. A. (1996). Development and validation of TQM implementation constructs. *Decision sciences*, 27(1), 23-56.
- ASEAN. (2016). ASEAN Community Based Tourism Standard. Available at https://www.asean.org/storage/2012/05/ASEAN-Community-Based-Tourism-Standard.pdf> (8 September 2019).
- Arnould, E. J., Price, L., & Zinkhan, G. M. (2002). Consumers. McGraw-Hill/Irwin.
- Bentler, P.M. and Bonnet, D.C. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychological Bulletin*, 88 (3), 588-606.
- Blackstock, K. (2005). A critical look at community based tourism. *Community development journal*, 40(1), 39-49.
- Boonratana, R. (2010). Community-based tourism in Thailand: The need and justification for an operational definition. *Kasetsart Journal: Social Sciences*, *31*(2), 280-289.
- Boulay, R., Hritz, D., & Nancy, M. (2016). Achieving Wellness through Tourism: Comparing International and US Travelers. Travel and Tourism Research Association: Advancing Tourism Research Globally. 13. Available at https://scholarworks.umass.edu/ttra/2012/Visual/13> (8 September 2019).
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sage focus editions*, *154*, 136-136.
- Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming.* Thousand Oaks, CA: Sage Publications.
- Chang, L., & Beise-Zee, R. (2013). Consumer perception of healthfulness and appraisal of health-promoting tourist destinations. *Tourism Review*, 68(1), 34-47.
- Chuamuangphan, N. (2016). The patterns of tourism management in hot spring sites in the western Thailand. *PEOPLE: International Journal of Social Sciences*, 2(1), 758-772. Available at https://grdspublishing.org/index.php/people/article/view/316/2552 (8 September 2019).
- Connell, J., & Rugendyke, B. (2008). Tourism at the Grassroots. *Villagers and Visitors in the Asia-Pacific*, Routledge, London. Doi:10.4324/9780203938027
- Corbin, C. B., & Pangrazi, R. P. (2001). Toward a Uniform Definition of Wellness: A Commentary. *President's Council on Physical Fitness and Sports*, 3(15).
- Crouch, G. I., Perdue, R. R., Timmermans, H. J. P., & Uysal, M. (Eds.) (2004). Building Foundations for Understanding Consumer Psychology of Tourism, Hospitality and Leisure. In G.I. Crouch, R.R. Perdue, H.J.P. Timmermans and M. Uysal (Ed.), *Consumer psychology of tourism, hospitality and leisure, volume 3 (1-5).* Wallingford: CABI Publishing.
- Dann, G. (1977). Anomie, ego-enhancement and tourism. *Annals of Tourism Research*, 4(4), 184-194.
- Dann, G. (1981), Tourist motivation: An appraisal. *Annals of Tourism Research*, 8(2), 187-219.
- Dunn, H. L. (1959). High-level wellness for man and society. *American journal of public health and the nations health*, 49(6), 786-792.
- Fornell C, Larcker DF. (1981). Evaluating structural model with unobserved variables and measurement errors. *Journal of Marketing Research*, 18 (1): 39-50. DOI: 10.2307/3151312



- Garson, G. D. (2009). *Logistic Regression. Statnotes: Topics in multivariate analysis.* Available at: https://faculty.chass.ncsu.edu/garson/PA765/statnote.htm> (8 September 2019).
- Gautam.V. (2015). *How many observed variables are required for each latent variable in SEM (AMOS)?* Available at

<https://www.researchgate.net/post/How_many_observed_variables_are_required_fo r_each_latent_variable_in_SEM_AMOS> (8 September 2019).

- Global Wellness Tourism Institute. (2018). *Global Wellness Tourism Economy*. Available at https://globalwellnessinstitute.org/wp-content/uploads/2018/11/GWI_GlobalWellnessTourismEconomyReport.pdf> (8 September 2019).
- Gnoth, J. (1997). Tourism motivation and expectation formation. *Annals of Tourism research*, 24(2), 283-304.
- Gorsuch, R. L. (1983). Factor analysis (2nd ed.). Hillsdale, NJ: Erlbaum.
- Hair, J., Black, W., Babin, B., and Anderson, R. (2010). *Multivariate data analysis*. New Jersey, NJ: Prentice-Hall, Inc.
- Henry, J. W., & Stone, R. W. (1994). A structural equation model of end-user satisfaction with a computer-based medical information system. *Information Resources Management Journal*, 7(3), 21-33.
- Hettler, B. (1976). *The six dimensions of wellness model*. Available at <The Six Dimensions of Wellness (hettler.com)> (8 September 2019).
- Hettler, B. (1984). Wellness: Encouraging a lifetime pursuit of excellence. *Health Values*, 8(4), 13-17.
- Hoelter, J. W. (1983). The analysis of covariance structures: Goodness-of-fit indices. *Sociological Methods & Research*, 11(3), 325-344.
- Hooper, D., Coughlan, J., Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hudson, S., Thal, K., Cárdenas, D., & Meng, F. (2017). Wellness tourism: stress alleviation or indulging healthful habits?. *International Journal of Culture, Tourism and Hospitality Research*, 11(1), 35-52.
- Hsu, C. H., & Huang, S. (2008). Travel motivation: A critical review of the concept's development. In A.G. Woodside and D. Martins (Ed.), *Tourism management: Analysis, behaviour and strategy* (14-27). Wallingford, England: CABI.
- Hsu, C.H.C., and Lam, T. (2003). Mainland Chinese travellers motivations and barriers of visiting Hong Kong. *Journal of Academy of Business and Economics*, 2(1), 60-67.
- Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, *3*(4), 424.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Illing, K. T. (1999). Der neue Gesundheitstourismus: die Studie zum Thema; Wellness als Alternative zur traditionellen Kur?.
- Jang, S.C. and Cai, L.A., (2002), Travel motivations and destination choice: a study of British outbound market. *Journal of Travel & Tourism Marketing*, *13*(3), 111-133.
- Joreskog, K. G., & Sorbom, D. (1984). *LISREL VI: Analysis of linear structural relationships by the method of maximum likelihood.* Mooresville, IN: Scientific Software.
- Kanittinsuttitong, N. (2018). *Market Demand and Capacity of Wellness Tourism in Thailand*. Paper presented at The 26th International Society for Business Innovation and Technology Management Conference, Thailand.



- Khlaikaew, K., Buakwan, N., & Chaiyakot, P. (2017). The standard of community based tourism marketing: A case study of Klongdaen community, Thailand. *PEOPLE: International Journal of Social Sciences*, *3*(2), 159-166. Available at https://grdspublishing.org/index.php/people/article/view/546/2855> (8 September 2019).
- Kline, P. (1979). *Psychometrics and psychology*. London: Academic Press.
- Kontogeorgopoulos, N., Churyen, A., & Duangsaeng, V. (2014). Success factors in community-based tourism in Thailand: The role of luck, external support, and local leadership. *Tourism Planning & Development*, 11(1), 106-124.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Leksakundilok, A., & Hirsch, P. (2008). Community-based ecotourism in Thailand'. In J. Connell & B. Rugendyke (Eds.), *Tourism at the grassroots: villagers and visitors in the Asia-Pacific* (214-235), London: Routledge.
- MacCallum, R.C., Browne, M.W., and Sugawara, H., M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods*, 1 (2), 130-49.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*, 84-99.
- Maneenetr, T., Naipinit, A., & Tran, T. H. (2014). Guidelines to development wellness tourism in Roi-Kaen-San-Sin cluster, Thailand. *Mediterranean Journal of Social Sciences*, 5(23), 214-220 Doi:10.5901/mjss.2014.v5n23p214
- Maneenetr, T., Naipinit, A., & Tran, T. H. (2015). SWOT Analysis of Wellness Tourism in Roi-Kaen-San-Sin Cluster, Thailand. *Editors-in-Chief*, 47(3), 262-269.
- Manderscheid, R. W., Ryff, C. D., Freeman, E. J., McKnight-Eily, L. R., Dhingra, S., & Strine, T. W. (2010). Peer reviewed: evolving definitions of mental illness and wellness. *Preventing chronic disease*, 7(1).
- Myers, J. E., Sweeney, T. J., & Witmer, J. M. (2000). The wheel of wellness counseling for wellness: A holistic model for treatment planning. *Journal of Counseling & Development*, 78(3), 251-266.
- Myers, J. E., & Williard, K. (2003). Integrating spirituality into counselor preparation: A developmental, wellness approach. *Counseling and Values*, 47(2), 142-155.
- Nunnally, J. (1978). Psychometric methods. McGraw-Hill, New York. 464-465.
- Nunnally, J., & Bernstein, I. (1994). Psychometric Theory. New York: McGraw-Hill.
- Office of the National Economic and Social Development Board . (n.d.). *Twelfth National Economic and Social Development Plan (2017-2021)*. Available at https://www.nesdb.go.th/nesdb_en/ewt_w3c/ewt_dl_link.php?nid=4345> (8 September 2019).
- Page, S. J., Hartwell, H., Johns, N., Fyall, A., Ladkin, A., & Hemingway, A. (2017). Case study: Wellness, tourism and small business development in a UK coastal resort: Public engagement in practice. Tourism Management, 60, 466-477. Doi: 10.1016/j.tourman.2016.12.
- Parkerson Jr, G. R., Broadhead, W. E., & Tse, C. K. J. (1990). The Duke Health Profile: A 17-item measure of health and dysfunction. *Medical care*, 28(11), 1056-1072.
- Pizam, A., Chon, K. S., & Mansfeld, Y. (1999). *Consumer behavior in travel and tourism*. Psychology Press.
- Pongwat, A. (2017, December). An investigation of tourism information on destination management organization websites as the pull factor: A case study of health and wellness tourism information. In 2017 11th International Conference on Software, Knowledge, Information Management and Applications (SKIMA) (pp. 1-8). IEEE.



- Schumacker, R. E., & Lomax, R. G. (2004). A beginner's guide to structural equation modeling. Psychology press.
- Sharafuddin, M. A. (2015). Types of Tourism in Thailand. *E-review of Tourism Research*, 12(3/4), 210-219. Available at https://agrilifecdn.tamu.edu/ertr/files/2015/09/5.-eRTR_CMTRY_Vol.12-No3.4_Sharafuddin.pdf> (8 September 2019).
- Siriwan, T. (2019). POTENTIAL OF COMMUNITY-BASED HEALTH TOURISM: A CASE STUDY OF BAN THUNG PRADU, PRACHUAP KHIRI KHAN PROVINCE. *Actual Economy: local solutions for global challenges*, 464-469. Available at https://conferaces.com/index.php/journal/article/view/134> (8 September 2019).
- Six Thai airports declared no-smoking zones from 3 February 2019. (2019). Available at https://www.tatnews.org/2019/02/six-thai-airports-declared-no-smoking-zones-from-3-february-2019/> (8 September 2019).
- Travis, J. (1975). Wellness Inventory. Mill Valley.
- Travis, J. W., & Ryan, R. S. (1981, 1988, 2004). *Wellness workbook*. Berkeley, CA: Ten Speed Press.
- Uysal, M., and Jurowski, C., (1994), Testing the push and pull factors. *Annals of Tourism Research*, 21(4), 844-846.
- Voigt, C., Brown, G., & Howat, G. (2011). Wellness tourists: in search of transformation. *Tourism review*. 66 (1/2), 16-30.
- Voigt, C. (2013). *Wellness tourism: A critical overview*. Available at http://www.tobewell.eu/media/universityofexeter/businessschool/documents/research/tobewell/Wellness_Tourism_-_Cornelia_Voigt.pdf> (8 September 2019).
- Zapata, M. J., Hall, C. M., Lindo, P., & Vanderschaeghe, M. (2011). Can community-based tourism contribute to development and poverty alleviation? Lessons from Nicaragua. *Current Issues in Tourism*, 14(8), 725-749.