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An assessment of value dimensions in hiking tourism: Pathways toward quality of life

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Abstract

Enhancing quality of life is one of the primary motives for people to participate in tourism activities. Particularly, hiking tourism has become increasingly popular in recent years due to its benefits on tourists' physical and mental health. Focusing on the context of hiking tourism, this study examined the role of tourists' perceived value on their quality of life through the engagement and connections with nature. Data were collected from hikers in the Astraka Refuge between two mountains, Astraka and Lapatos, in Greece. The results indicated that tourists' perceived value influences their engagement in hiking tourism and connections with nature, which further lead to their quality of life. This study enriches the literature of quality of life by the investigation of the term in the hiking tourism context. The results also provide suggestions for destination marketers to promote hiking tourism.

KEYWORDS

connections with nature, engagement, hiking tourism, perceived value, quality of life

1 | INTRODUCTION

Nature-based tourism has become a growing sector of the tourism industry across the world (Arnegger, Woltering, & Job, 2010). Particularly, increasing attention has been placed on physical activities in a natural environment for people's health and well-being (e.g., Maas & Verheij, 2007; Maas, Verheij, Groenewegen, De Vries, & Spreeuwenberg, 2006; Rütten et al., 2001). Therefore, hiking tourism, as such a beneficial type of physical exercise in natural landscapes, has sparked industry practitioners' and scholars' interests (H. Kim, Woo, & Uysal, 2015). Hiking tourism refers to "a vacation or holiday-related outdoor activity that consists of shorter or longer walks in natural and cultural landscapes, and often in rural areas" (Nordbo, Engilbertsson, & Vale, 2014, p. 383).

Hiking tourism becomes a popular wellness travel trend across the world (Weiss, 2016). For example, over 32 million Americans participated in hiking or backpack trips annually from 2008 to 2016 (Statista, 2017). The number of people involved in hiking or backpack vacations in Germany in 2016 was 17.3 million (Statista, 2017). Between 2009 and 2013, over a million international visitors participated in hiking during their trips to New Zealand. Visitors enjoy walking on trails, observe beautiful wildlife sceneries, and become connected with nature, which are instant benefits of participating in hiking activities (Boulware, 2003). As a long-term consequence, hiking activities could help people reduce stress, improve sleep quality, and enhance mental health, which promote quality of life (QOL; Hansmann, Hug, & Seelanda, 2007).

In the limited research body of hiking tourism, most previous studies focused on hiking destination planning in a specific location (e.g., Nordbo et al., 2014), environmental issues (e.g., Chhetri, Arrowsmith, & Jackson, 2004), and destination management (e.g., Wolf, Hagenloh, & Croft, 2012). However, sporadic research has examined the phenomena from a marketing or consumer (tourist) perspective (Nordbo et al., 2014). Sánchez, Callarisa, Rodriguez, and Moliner (2006) argued that tourists' perceived value is the determinant of their participation in tourism activities, which should be a foundational factor to understand tourists. Perceived value refers to customers' subjective evaluations between benefits and sacrifices from a product or service (Zeithaml, 1988). Tourists select a destination based on their desired values, which compare expected benefits and costs of visiting a destination (Bajs, 2015). Perceived value should be assessed as a multidimensional construct as it reflects customers' diverse needs for their consumption experience (Sánchez et al., 2006). However, to date, hiking tourists' perceived value has not been comprehensively examined from multiple dimensions. On the basis of the unique characteristics and benefits of hiking tourism, ecological, emotional, and novelty value dimensions were investigated in the present study (e.g., Kastenholz & Rodrigues, 2007; Meng, Tepanon, & Uysal, 2008).

Previous marketing studies have confirmed the importance of an individual's perceived value on evaluation (e.g., satisfaction and trust) of the usage outcome of the product or service (e.g., Cronin, Brady, & Hult, 2000; Gallarza & Saura, 2006; McDougall & Levesque, 2000). As indicated above, the expected positive outcomes of hiking trips are connections to nature in the short term and QOL in the long term. However, hiking tourism is an experience-dominant activity, which requires high involvement of tourists (Chhetri et al., 2004). If tourists are not intensely engaged in hiking activities, they could not reach the desired outcomes (Bimonte & Faralla, 2014; K. Chan & Li, 2010). Moreover, perceived value was identified to influence visitors' engagement or involvement in tourism activities (Y. H. Kim, Kim, & Wachter, 2013). Engagement advocates the role of tourists as active participants who perceive and cocreate value of tourism experience (So, King, Sparks, & Wang, 2016). Engagement is considered as a vehicle that maximizes tourists' meaningful experience (T. Chan, Zhang, Cheung, Lee, & Lee, 2014). If engagement were missing from the path between value and expected outcomes (i.e., connections to nature and QOL), the understanding of tourist experience in hiking would be incomplete. The present research aimed to fill the research gap.

The purpose of the present study aimed to develop and test a conceptual model that represented the relationships among tourists' perceived value, engagement, connections to nature, and QOL in hiking tourism. The specific objectives of this study were to (a) evaluate tourists' perceived value from three dimensions (ecological, emotional, and novelty); (b) investigate the influence of perceived value on engagement and connections to nature; (c) examine the impact of engagement on connections to nature; and (d) assess QOL as the consequence of engagement and connections to nature. This study enriched the hiking tourism literature from marketing or consumer behavior perspectives. An understanding of tourists' value and the potential short-term and long-term outcomes they pursue could help destination marketers design effective hiking activities to engage tourists in.

2 | LITERATURE REVIEW

2.1 | Hiking tourism

Hiking has become one of the largest tourism segments in nature-based tourism (Kay & Moxham, 1996). Referring to a slow-paced, simple mobility, hiking includes intermittent face-to-face relationships with other people, places, nature, and events (Urry, 2007). The word *hike*, which was initially spelled as hyke, has begun to be used since 1809, explaining walk vigorously (Rodrigues, Kastenholz, & Rodrigues, 2010). In the United States, Canada, and the United Kingdom, hiking refers to outdoor activities on a trail or off trail for recreational purposes, covering diverse and dynamic activities (Kay & Moxham, 1996). For instance, hiking varies from leisure activities conducted on foot during the summer to cross-country skiing during the winter (Svarstad, 2010). As a common term in the English language, hiking can be interchangeably used with *walking*, *trekking*, *rambling*, *strolling*, and *bushwalking* (Nordbo et al., 2014). However, these terms have some subtle difference (Bauer et al., 2012). For instance, trekking focuses on the adventure part of walking, whereas hiking emphasizes an amplified kind of walking (Weaver, 2001). Hiking is related to long-term distance; on the other hand, walking is used for short-term distance (Bauer et al., 2012).

People experience wildlife and cultural resources in a natural setting when they engage in hiking activities (H. Kim, Lee, Uysal, Kim, & Ahn, 2015; H. Kim, Woo, & Uysal, 2015). On the basis of the popularity of hiking activities, previous studies investigated hiking tourism destinations across the world, such as Australia (Chhetri et al., 2004), Israel (Collins-Kreiner & Kliot, 2016), South Korea (H. Kim, Lee, et al., 2015; H. Kim, Woo, & Uysal, 2015), Norway (Svarstad, 2010), Scotland (Breejen, 2007), and Portugal (Rodrigues et al., 2010). Previous studies also investigated antecedents of hiking tourism, including tourists' motivations to take hiking tourism (Collins-Kreiner & Kliot, 2016; H. Kim, Lee, et al., 2015; H. Kim, Woo, & Uysal, 2015), hiking trail conditions (Olafsdottir & Runnstrom, 2013), and ecological features of hiking trails (Santarém, Silva, & Santos, 2015). In addition, outcomes and benefits of hiking tourism have been identified, such as experiential landscape (Chhetri et al., 2004) and well-being and revisit intentions (H. Kim, Lee, et al., 2015; H. Kim, Woo, & Uysal, 2015).

In spite of increasing interests in hiking tourism, scant research has taken a marketing approach to investigate the role of hiking tourism. Nordbo et al. (2014) classified previous studies on hiking tourism into four categories: (a) environmental impacts and conservation issues (e.g., harmony between hikers and animals in protected areas), (b) medicine and health issues (e.g., hikers' injuries), (c) landscape planning and management (e.g., maintenance of trails and hiking facilities), and (d) tourist experiences and behavior (e.g., hikers' motivations). Nordbo et al. further suggested that few previous studies had been found in the fourth category—tourist experiences and behaviors. Among these limited studies, Svarstad (2010) examined why people engage in hiking. He identified recreation, simple outdoors discourse, and belonging as hikers' motivations based on grounded theory. Rodrigues et al. (2010) also confirmed the important role of hiking for wellness tourists at rural destinations. To fill the current literature gap, the present study explored hiking tourism, particularly from the perspective of tourist experiences and behavior.

3 | HYPOTHESIS DEVELOPMENT

3.1 | Value: ecological, emotional, and novelty

Perceived value refers to customers' subjective evaluations between benefits and sacrifices from a product or service (Zeithaml, 1988). Tourists' perceived value is the comparison between perceived benefits and costs of visiting a destination (Murphy, Pritchard, & Smith, 2000). Perceived value influences tourists' satisfactory experience, which contributes to a destination's competitive advantage (Bajs, 2015). Crompton (1992) suggested that identifying tourists' value perceptions is critical to effectively position a destination, which differentiates from others. Sánchez et al. (2006) also argued that tourists' perceived value is a determinant of their participations in tourism activities, which should be addressed in destination planning and assessed as a multidimensional construct to reflect tourists' diverse needs.

The multidimensional approach of value perceptions has been widely used in tourism research considering the heterogeneous nature of tourists' experience (Sweeney & Soutar, 2001). Functional–utilitarian and hedonic–experiential attributes are the two foundational value dimensions, which have been widely investigated in previous tourism and hospitality studies (e.g., Chitturi, Rajagopal, & Vijay, 2007; Chiu, Wang, Fang, & Huang, 2014). Functional value needs to be explained in a specific tourism context (Williams & Soutar, 2009). For example, Williams and Soutar (2005) explicated the functional value of adventure tourism with a particular focus on safety issues and planning to minimize risk. Adger, Brown, Cervigni, and Moran (1995) related the functional attribute of forests to its ecological value, such as global biogeochemical cycling, soil protection, and watershed management. Accordingly, in the present study, ecological value was used to explain the functional attribute of hiking tourism because it is a nature-based (e.g., trails and forest) activity.

Ecological value refers to the value created by consuming environmentally friendly products or services (Koller, Floh, & Zauner, 2011). When tourists have a higher level of concern about nature, they are more likely to show environment-friendly behaviors (Shabecoff, 1996). Ecological value is particularly important in hiking tourism because tourists often visit a hiking destination to engage in the beauty of nature while they are walking. Cole (2004) advocated the importance of ecological sensitivity to keep the fine condition of trails. Santarém et al. (2015) also suggested the importance of conserving ecological features on trails when evaluating seasonal differences of hiking tourism activities.

Together with functional (ecological) value, emotional value is the other foundational value attribute of tourism activities. Emotional value explains whether a destination influences tourists' feelings or affective responses (Williams & Soutar, 2009). Examples of emotional value are tourists' perceived enjoyment, pleasant experiences, or positive feelings (Sánchez et al., 2006). Emotional value positively influences tourists' satisfaction and revisit intentions through enjoyment and relaxation (Sánchez et al., 2006). Robinette and Brand (2001) confirmed the importance of emotional value in their value star model because positive affective status enables tourists to create unique, long-lasting memories. Particularly, Chhetri et al. (2004) supported the emotional benefits of visiting a hiking tourism destination. They examined subjective meanings of experience in a natural setting and identified enjoyment, excitement, and relaxation as positive emotional experience in hiking activities.

Besides functional and hedonic attributes, previous tourism studies have explored many other value dimensions, such as social (Rintamäki, Kanto, Kuusela, & Spence, 2006), condition (Sheth, Newman, & Gross, 1991), epistemic or novelty (Williams & Soutar, 2009), and others. Novelty value was adopted in the present study since pursuing new and different experience is one of the motives in hiking tourism (Kastenholz & Rodrigues, 2007). Novelty seeking is highly associated with individuals' innate personality traits that explain their tendencies to try a new thing in each situation (Midgley & Dowling, 1978). Berlyne (1950) is one of the pioneer researchers in psychology who identified novelty seeking as one of the human motivations. Novelty value in tourism studies describes the level of tourists' curiosity aroused in a destination, which influences their decision-making processes (Sheth et al., 1991). Examples of novelty value are changes from routine life, escape, thrill, adventure, and surprise to alleviate boredom (Williams & Soutar, 2009).

The importance of novelty value has been confirmed in the literature of hiking tourism. For instance, Mehmetoglu (2007) identified "novelty/learning" as one of the trip motives for nature-based tourists. H. Kim, Lee, et al. (2015) and H. Kim, Woo, and Uysal (2015) also suggested that pursuing a new type of travel is one of the hiking tourists' motivations, along with enjoying the natural environment, escaping daily life, pursuing a healthy life, and seeking intimacy.

3.2 | Engagement in hiking tourism

Engagement is theoretically rooted in the service-dominant logic, which explains that customers have a dual role in receiving or interpreting the service and cocreating experience (Vargo & Lusch, 2008). Vargo (2009) viewed engagement as a transcending view of relationships. This transcending perspective supports that tourist behavior is centered on the interactive experience between tourists and/or other stakeholders that occur in the cocreative environment. Customer engagement is under the overarching idea of engagement and has been extensively investigated in the marketing literature (e.g., T. Chan et al., 2014; Vivek, Beatty, & Morgan, 2012). Customer engagement has emerged in the tourism literature as a key concept that influences customer experience and firm performance due to the highly interactive and experiential nature of the industry (So et al., 2016). Customers are viewed as the cocreator of value together with service providers; thus, their engagement is encouraged in the service process transactions (Ostrom et al., 2010).

Engagement is a customer-centric approach that entails a strong behavioral focus (So et al., 2016). Traveling is an example of customer-initiated engagement (Vivek et al., 2012). Thus, tourists' subjective evaluation of a destination, which refers to the perceived value, is important to entice tourists' engagement. Engagement advocates the role of tourists as active participants who perceive and cocreate value of tourism experience (So et al., 2016). When tourists perceive value, they tend to engage more in tourism activities and further receive more benefits of visiting the destination. The relationship between perceived value and tourist engagement was also supported in Festinger's (1972) cognitive dissonance theory. Festinger advocated that individuals attempt to reach consistency among their cognitions (e.g., beliefs and opinions) and actions. On the basis of cognitive dissonance theory, it is expected that when tourists perceive values in a destination, they are more likely to engage in the destination; on the other hand, if a destination does not provide what tourists seek, they might be less engaged in the destination. Thus, the following hypothesis is proposed.

> **H1** *Tourists' perceived value positively influences their engagement in hiking tourism activities.*

3.3 | Connections with nature

Investigating the relationship between humans and nature has gained much attention in nature-based tourism (e.g., Nisbet, Zelenski, & Murphy, 2008). Connections with nature refer to an individual's

association with nature derived from their environmental concerns (Mayer & Frantz, 2004). The biophilia hypothesis proposed by Kellert and Wilson (1993) supports connections with nature because human beings' innate desire is to make linkages to the natural environment (Balmford et al., 2009). People enjoy hiking as a means of outdoors discourse (Svarstad, 2010). Visitors pursue meaningful experience or value in hiking activities, including learning about an ecosystem, participating in the conservation of natural resources, and interacting with local communities (Svarstad, 2010). The role of value is supported by attachment theory (Bowlby, 1969). Attachment theory indicates that when people perceive value from a subject, they tend to emotionally attach to the subject (Thomson, MacInnis, & Park, 2005). In the application of attachment theory to hiking tourism, when tourists receive expected values from visiting a hiking destination, they are more likely to connect or generate belonging with nature. Thus, the following hypothesis is proposed.

H2 *Tourists' perceived value positively influences their connections with nature.*

Engagement influences people's cognitive, attitudinal, and behavioral responses (Van Doorn et al., 2010). Blau's (1964) social exchange theory supports the relationship between individuals' engagement and positive responses. According to Blau, people choose to create and maintain relationships that maximize benefits and minimize costs. Accordingly, tourists engage in tourism activities when they foresee benefits from these activities. K. Chan and Li (2010) further suggested tourist engagement influences emotional connection or attachment. Thus, tourists are expected to actively participate in hiking activities as they receive benefits of immersing with nature. From the discussions above, the following hypothesis is proposed.

H3 *Tourists' engagement in hiking tourism activities positively influences their connections with nature.*

3.4 | Quality of life

QOL refers to the overall feelings of life as a whole (M. Sirgy, 2010). As an indicator of an individual's subjective well-being, happiness, and life satisfaction, QOL balances the environmental, social, and economic outcomes of tourism practices (M. Sirgy, 2010). QOL research has two mainstreams—objective or subjective (Neal, Uysal, & Sirgy, 2007). The objective approach describes the social indicators of QOL (Diener & Suh, 1997). Social indicators of QOL are related to societal measures that represent people's objective conditions in a certain location (Diener & Suh, 1997). Examples of these indicators include education, doctors per capita, and police per capita. On the other hand, the subjective approach of QOL indicates that overall life satisfaction is determined by satisfaction within major life domains (J. M. Sirgy, 2002). Tourism activities play an important role toward improving people's QOL (e.g., M. J. Sirgy, Kruger, Lee, & Grace, 2011; Uysal, Sirgy, Woo, & Kim, 2016). For instance, Neal et al. (2007) addressed the spillover effects of tourism activities on life domain satisfaction, which explains a primary effect influences a secondary effect.

Visiting a hiking destination is expected to enhance tourists' QOL (Rodrigues et al., 2010). Rodrigues et al. (2010) defined hiking as wellness tourism activities, as hiking tourism is related to recreational programs, which reduces stress and provides a relaxing experience. Bimonte and Faralla (2014) also suggested that when tourists are engaged in nature-based vacations, they are likely to feel happy as part of well-being perceptions. Hiking tourists tend to fulfill their subjective well-being through positive moods generated from hiking activities (H. Kim, Lee, et al., 2015; H. Kim, Woo, & Uysal, 2015). Thus, the following hypothesis is proposed.

H4 *Tourists' engagement in hiking tourism activities positively influences their QOL.*

The importance of tourism for QOL depends on how people attach meanings to tourism-related goals (M. Sirgy, 2010). M. Sirgy (2010) viewed tourism decisions as goal-driven activities and applied the goal valence principle to explain that positive attitude toward life generates when tourists' goals are met. One of the primary goals in hiking tourism is to explore nature (Chhetri et al., 2004). Berger (2004) also suggested connecting people with nature is important not only for conservation of nature but also for their well-being and happiness. Moreover, Beringer and Martin (2003) proved that people's interactions with nature or the natural environment lead to their comfort and psychological health. In addition, H. Kim, Lee, et al. (2015) and H. Kim, Woo, and Uysal (2015) identified the positive role of nature-based tourism in improving tourists' subjective well-being. Thus, the following hypothesis is proposed.

H5 *Tourists' connections with nature positively influence their QOL.*

From the discussions above, Figure 1 illustrates the proposed conceptual model for the current study, investigating antecedents and outcomes of tourists' engagement in hiking tourism.

4 | METHODS

4.1 | The study setting

Data were collected at Astraka Refuge located in the Vikos-Aoös National Park and situated on the col at 1,930 m between two famous mountains—Astraka and Lapatos—in Radovoli, Greece. The Refuge was constructed in 1966 and has been administered by the Hellenic Federation of Mountaineering and Climbing. Hikers access Astraka Refuge from five different Zagorian villages, depending on their desire and time to walk (from Papigo 2–3 hr, from Konitsa 5–6 hr, from Vrysochori 8–10 hr, from Tsepelovo 6–7 hr, and from Vradeto 5–6 hr; Alterna, 2013). A footpath of 100 km joins the Zagorian villages. This trail network combines rivers, gorges, caves, alpine lakes, and more than 20 summits higher than 2,000 m (Astraka, 2014). The trail is part of the Vikos-Aoös National Park, a unique geomorphological monument and habitat for rare wildlife, protected species of fauna, and endemic plants and flowers. The main mountain activities are hiking, rock climbing, off-piste skiing, and horse riding with a strong mountain breed (Astraka, 2014).

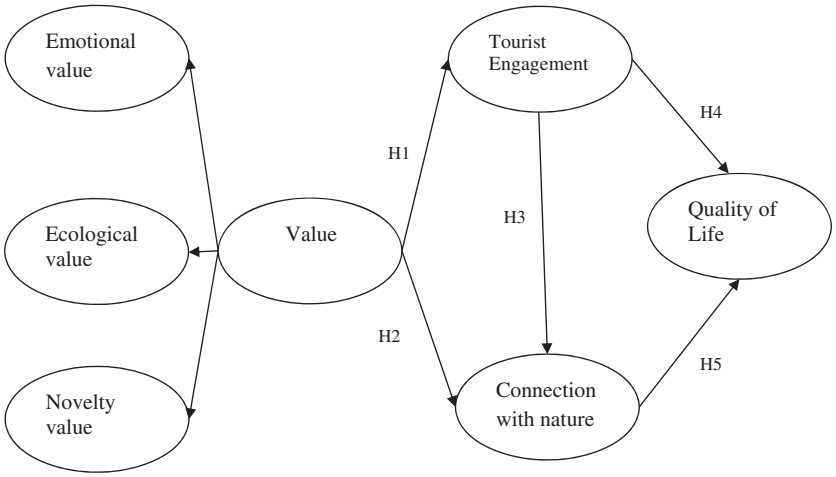

FIGURE 1 The proposed model

4.2 | Survey development

The original survey was constructed in English and then translated into Greek using back-translation rules (Brislin, 1986). A screening question was used at the beginning of the questionnaire, and only out-of-town tourists rather than local residents were invited to participate in the hiking tourism survey. The survey consisted of three sections. The first section investigated value with measurement items adopted from Williams and Soutar (2009) and Koller et al. (2011) and engagement with measurement items from Jahn and Kunz (2012). The second section included measurement items of connections with nature and QOL. Connections with nature and QOL were adapted from Gosling and Williams (2010) and Grzeskowiak and Sirgy (2007), respectively. The last section included the demographic characteristics of the respondents, such as gender, age, education, nationality, times of hiking per year, and traveling companions. The measurement items in Sections 1 and 2 used a 7-point Likert-type scale, ranging from 1 (*extremely disagree*) to 7 (*extremely agree*). All the items are described in the Appendix.

4.3 | Data collection

Considering the Astraka Refuge is the only place in the mountains where hikers spend a night, Astraka was chosen as the data collection site for this study. The Astraka Refuge hosts an average of 1,500 visitors annually from May to October. Due to snows on the trails during winter, only professional climbers can access the Astraka Refuge. Two well-trained staff at Astraka Refuge collected data from 15 June 15 through 15 August 2013. On the basis of the convenience sampling method, the assistants randomly chose out-of-town hikers who stayed at the Refuge. The assistants explained the purpose of the research project and invited hikers to participate in the survey. Once hikers agreed to participate in the survey, they were asked to answer the self-administered, paper-and-pencil format survey. Even though 340 surveys were collected, a total of 333 surveys in a usable format were utilized for data analysis after deleting seven incomplete surveys.

4.4 | Data analysis

This study employed the two-step approach suggested by Anderson and Gerbing (1988). The first step was confirmatory factor analysis (CFA) used to validate scales for the measurement of specific constructs proposed in the research model (Hair, Anderson, Tatham, & William, 1998). The second step involved structural equation modeling to evaluate the validity of the proposed model and hypotheses. The maximum likelihood procedure was utilized to estimate the measurement and structural models. SPSS 20.0 and Amos 21.0 were used to analyze the data.

5 | RESULTS

5.1 | Profile of respondents

The percentages of male and female respondents were 54% and 46%, respectively. In terms of age, the largest groups were 35–44 (23.5%), 25–34 (19.8%), and 20–24 (19.5%). The percentages of national and international hikers were 69% and 31%, respectively. Almost half of the respondents (49.8%) hiked with friends, followed by those with family (24.8%) or alone (20.7%). The largest group of respondents hiked about five to six times annually (28.2%), followed by those hiking at least twice (19.8%), three to four times (15.2%), and seven to eight times (13.9%).

5.2 | Measurement model analysis

CFA was conducted for the full measurement model to verify the unidimensionality of the scales and validate the measurement for each construct. The results of CFA showed a good model fit of measurements, $\chi^2(221) = 445.10$, $p = .00$, $\chi^2/df = 2.014$, goodness-of-fit index = 0.894, incremental fit index = 0.920, Tucker–Lewis index = 0.918, comparative fit index = 0.919, and root mean square error of approximation = 0.056. Both reliability (composite reliability of the overall scale and average variance extracted [AVE]) and validity (the convergent and discriminant validity) were examined (see Tables 1 and 2). Composite reliability is the reliability of a summated scale, and AVE is the variance in the indicators explained by the common factor. Composite reliability is expected to be greater than 0.7 (Hair et al., 1998), and an AVE greater than 0.5 is acceptable (Bagozzi & Yi, 1988). The results showed an acceptable level of composite reliability (0.751–0.842) and AVE (0.480–0.581). The AVE for the connections-with-nature construct (0.48) was marginally low. Lower thresholds are sometimes acceptable in the literature, as the

TABLE 1 Descriptive statistics and internal consistency reliability for the measurement items

Construct	*M*	*SD*	Standardized factor loadings	Composite reliabilities
Value				0.751
Emotional			0.784	
Em1	4.14	0.929	0.605	
Em2	3.92	0.835	0.644	
Em3	3.96	0.875	0.777	
Em4	3.99	0.786	0.737	
Ecological			0.628	
Eco1	4.05	0.823	0.605	
Eco2	3.95	0.865	0.700	
Eco3	3.93	0.868	0.748	
Novelty			0.707	
Nov1	3.79	0.910	0.660	
Nov2	3.81	1.02	0.337	
Nov3	4.09	0.906	0.789	
Tourist engagement				0.842
Eng1	3.83	0.852	0.807	
Eng2	3.77	0.908	0.885	
Eng3	3.76	0.984	0.808	
Eng4	3.78	0.967	0.488	
Connections with nature				0.820
Con1	3.81	0.984	0.716	
Con2	3.85	0.797	0.764	
Con3	3.77	0.836	0.714	
Con4	3.84	0.888	0.634	
Con5	3.79	0.863	0.620	
Quality of life				0.799
Q1	3.91	0.846	0.595	
Q2	3.69	0.889	0.737	
Q3	3.84	0.915	0.782	
Q4	3.91	0.889	0.705	

TABLE 2 Latent variable correlation matrix

Variable	1	2	3	4
1.Value	**0.503**[a]	0.13[c]	0.33	0.42
2. Tourist engagement	0.36[b]	**0.581**	0.28	0.35
3. Connection with nature	0.58	0.53	**0.480**	0.52
4. Quality of life	0.65	0.59	0.72	**0.501**

[a]Entries on the bolded diagonal is average variance extracted.

[b]Correlations are below the bolded diagonal.

[c]Squared correlations are above the bolded diagonal.

magnitude of the coefficients depends on the number of construct factors (e.g., Stepchenkova, Tang, Jang, Kirilenko, & Morrison, 2010).

Convergent validity is the degree to which an operation converges with other operations that it theoretically should resemble. Convergent validity is evaluated by checking the factor loadings on each measurement scale (Fornell & Larcker, 1981). Table 1 indicates all loadings were significant at $p < .001$. Discriminant validity describes the degree to which the operationalization is not similar to (diverges from) other operationalizations that it theoretically should not be similar to (Fornell & Larcker, 1981). Discriminant validity is assessed through the comparison of AVE values and squared correlations between constructs. The values of squared correlations (R^2) between a pair of constructs should be lower than the AVE for each construct. The findings indicated all AVE values were higher than squared correlations, except connection with nature and QOL. Bagozzi and Yi (1988) recommended discriminant validity should be further evaluated through χ^2 difference test between a combined model and an uncombined model for the pair with a lower squared correlation than AVE. The findings indicated χ^2 was significant at the 0.001 level ($\chi^2 = 106.49$, $df = 3 > \chi^2_{0.001}$), which suggested discriminant validity for this pair was acceptable as well.

5.3 | Structural model

Fit indices of the estimated structural model indicated the model provided a good fit, $\chi^2(222) = 461.00$, $p = .00$, $\chi^2/df = 2.077$, goodness-of-fit index = 0.890, incremental fit index = 0.915, Tucker–Lewis index = 0.902, comparative fit index = 0.914, and root mean square error of approximation = 0.058. All hypotheses were supported. The acceptance of H1 indicated value positively influenced hikers' engagement ($t = 4.413$, $p < .001$). H2 proved value directly influenced hikers' connections with nature ($t = 5.116$, $p < .001$). The acceptance of H3 suggested a positive relationship between hikers' engagement and their connections with nature ($t = 5.135$, $p < .001$). The approval of H4 confirmed a positive relationship between hikers' engagement and QOL ($t = 4.090$, $p < .001$). The acceptance of H5 suggested connections with nature positively influenced QOL ($t = 6.981$, $p < .001$). The squared correlations for the dependent variables tourist engagement, connection with nature, QOL were 0.14, 0.49, and 0.61 respectively. Figure 2 depicts the results of the structural model.

6 | DISCUSSION

The results showed all three dimensions contributed to tourists' value perceptions. Among the three subdimensions, the emotional aspect contributed the most to tourists' value perceptions. Emotional value was important because it built symbolic and emotional meanings associated with products or services for their customers (Hosany & Gilbert, 2010). The results particularly confirmed that positive affections (i.e., feelings of well-being, excitement, elatedness, and happiness) help people involve in hiking tourism activities. It was consistent with the findings of previous studies on hiking tourism (Chhetri et al., 2004; Kyle, Graefe, Manning, & Bacon, 2003).

The novelty dimension also played an important role in the overall value of hiking tourism. Novelty value is identified as one of the primary motivations in many tourism types, such as adventure tourism (Williams & Soutar, 2009), cruise tourism (Kwortnik, 2008), and island tourism. The current study contributed to the literature relevant to novelty seeking in tourism by exploring it in hiking activities. Although

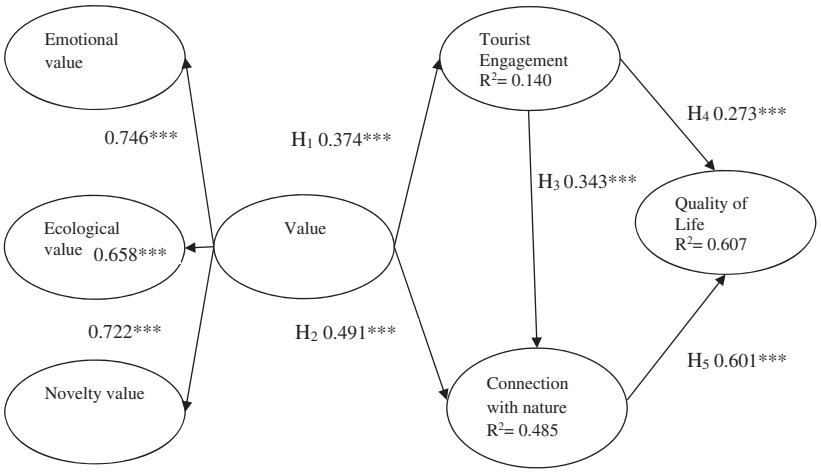

FIGURE 2 The results of the structural model

the ecological dimension played a lesser role in the assessment of overall value, it nonetheless had a significant impact in hiking tourism. MacCannell (1973) proposed tourists prefer authentic experience rather than one artificially created by the tourism businesses. In the context of hiking tourism, the authentic experience is an environment-friendly nature without pollutions on the hiking trails (Santarém et al., 2015). In line with the statements above, the findings of the present study confirmed why engagement in nature was one of the motivations for hiking tourism, which were discussed in previous studies (Collins-Kreiner & Kliot, 2016; Kastenholz & Rodrigues, 2007).

Furthermore, the results identified the consequences of visitors' engagement in hiking tourism. The result of the present study proved the positive relationship between tourists' engagement and their connections with nature, which was consistent with the works of K. Chan and Li (2010) and Sandbrook and Adams (2012). When tourists were more involved in hiking tourism, they were more inclined to be a part of, feel connected to, and generate personal bonding with nature. The result also indicated that engaged experience in hiking activities led to improvement in overall quality of the individuals' life in both leisure and social perspectives, which was consistent with the studies of Uysal, Perdue, and Sirgy (2012), H. Kim, Lee, et al. (2015), H. Kim, Woo, & Uysal (2015), and Uysal et al. (2016).

The results of the study might be contingent on the data collection procedure. Responses were collected via direct administration of self-administered questionnaires based on a cross-sectional design. Following prior research, this study recruited participants by asking hikers who came across on specific days at the specific trail (Rodrigues et al., 2010). This approach was considered as an appropriate approach for sampling hiking tourists, due to the lack of prior statistical information about the population under this specific study context (Rodrigues et al., 2010). In addition, results might be contingent on respondents' different levels of engagement. The sample of this study consisted of the tourists who had hiking experiences with the purpose of measuring their engagement in hiking tourism activities. Customer engagement levels might differ depending on age, gender, purpose of travel, and cultural backgrounds (Chathoth et al., 2014). Customer engagement levels might also vary depending on customers' value cocreation experiences (Jaakkola & Alexander, 2014; So, King, & Sparks, 2014). Therefore, different levels of engagement and/or different tourists' background might have influenced results of this study.

7 | IMPLICATIONS

7.1 | Theoretical contributions

The present study added to the growing body of literature on hiking tourism from marketing perspectives. Responding to a call for more research in hiking tourism from a marketing perspective (Nordbo et al., 2014), this study investigated the important role of tourists' value perceptions in hiking tourism. This study assessed tourists' values with a multidimensional approach. In particular, this study explained value as value in experience, which describes a mechanism for tourists to cocreate experience at the hiking destination. Engagement has been widely investigated in marketing research; however, scant research has been found in tourism research (So et al., 2016). This study presented a comprehensive picture of engagement in hiking tourism context by incorporating its antecedents (value) and consequence (connections with nature and QOL), which contributed to the engagement literature.

Neal, Sirgy, and Uysal (2004) advocated the need to put more effort to investigate the importance of QOL in diverse tourism activities. Although scant previous studies identified the positive relationship between engagement in tourism activities and individual's QOL (e.g., M. J. Sirgy et al., 2011), the underlying psychological and behavioral processes incorporating the factors that contributed to tourists' QOL had remained unknown, especially in the hiking tourism context. The present study filled the research gap and contributed to the knowledge body of QOL as a consequence of hiking tourism.

7.2 | Industry implications

The present study has significant practical implications, which enable industry practitioners to efficiently allocate available resources in hiking destinations. Emotional value is important to influence tourists' engagement in hiking tourism. Therefore, managers of the hiking destination need to consider how to arouse tourists' excitement,

happiness, and other positive feelings when they visit walking trails. Relying on the beauty of nature, managers could develop different activities or programs to entice tourists' emotional values. For instance, walking trails in the vineyard can be opened during peak season, and different walking trails can be accessible to tourists, depending on the seasonal attractiveness of nature (e.g., blooming flowers and snow flowers). More view-watching points and rest gateways could be added on walking trails to help tourists take mental and physical breaks as well as reduce stress. Novelty also plays an important role in tourists' value perceptions. Hiking tourism destinations need to satisfy tourists' adventures and curiosity needs. For instance, to encourage tourists' novel experiences, hiking trails could be positioned with distinctive features of the activities along the pathways, such as adventure in a ghost house, tour of living history farms, and bear watching.

Hiking destinations should also be environmentally friendly, which achieves the ecological value. Similar with many other outdoor activities, hiking tourism might have negative impacts on the natural ecosystem (Lynn & Brown, 2003). The construction and excessive use of hiking trails adversely affect nature, resulting in physical, ecological, and esthetic impairment of the attractions (Leung & Marion, 1996). The common negative impacts of trails include soil erosion, muddiness, trail extension and widening, vegetation damage, and litter. Therefore, tourists are advised to prefer a hiking destination with minimal pollution and plentiful environment-friendly activities. Although some degree of negative impacts might be acceptable, the natural ecosystems should be preserved, keeping the harmful impacts minimal (Hendee, Stankey, & Lucas, 1990).

One of the most critical issues in the tourism development is to keep the balance between protecting natural ecosystems and making recreational use (Lynn & Brown, 2003). Marketers should balance the maximum tourist numbers for economic profit and minimum environment pollution. Different practices (e.g., recycling, repurposing, and leaving no trace) also contribute to the sustainability development of local communities. Moreover, destination managers are advised to follow the regulations from international, national, and regional professional organizations (e.g., national parks and conservation associations, American hiking society, or ecotourism society) to protect the ecological integrity of the hiking destination and fulfill social responsibility.

With strategies based on value dimensions tourists' pursue described previously, industry practitioners could encourage tourists to engage in hiking activities. Tourists' engagement could generate their emotional connections with nature and improve QOL. Especially, nowadays, people increasingly pay attention to their physical and mental well-being. Achieving a high QOL becomes one of the living goals for many people. The potential benefits of engagement in hiking tourism should be visually illustrated through audios and pictures in advertising and other travel brochures, which encourage tourists to increase frequency and extent of hiking exercises.

8 | LIMITATIONS AND FUTURE RESEARCH

Even though the present study makes contributions, it entails limitations. First, the survey was conducted at one hiking destination, Greece, based on the convenience sampling method. Therefore, the generalizability of these results may be a concern. Future research should include different destinations to expand the application of the framework proposed in this study. Second, QOL was measured as a general construct. Future research might investigate the different perspectives of QOL, such as psychological, leisure, and social (M. Sirgy, 2010). Third, the present study only examined emotional, ecological, and novelty dimensions of value. More value dimensions could be added in future research. Fourth, value is perceived as the balance between benefits and sacrifice. The present study focused more on the benefits of visiting a hiking destination. Future research could explore more risk factors of visiting a hiking destination.

Fifth, this study entailed sampling bias because this study did not include nonparticipation questions. Future research could also recruit respondents who stop visiting the trails by checking background variables. The comparison of the respondents at two extreme levels of engagement is expected to provide insightful implications. Sixth, this research only investigated the positive impacts of hiking tourism as benefits. However, some negative impacts (e.g., soil erosion due to the construction and excessive usage of trails) are inevitable, which could be the topic of future studies.

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APPENDIX

Emotional value

1. Trekking gives me feelings of well-being.
2. Trekking is exciting.
3. Trekking makes me elated.
4. Trekking makes me feel happy.

Ecological value

1. Trekking is environmentally friendly.
2. Trekking pollutes the environment only marginally.
3. Trekking is more environmentally friendly than many other leisure activities.

Novelty value

1. Trekking makes me feel adventurous.
2. Trekking satisfies my curiosity.
3. Trekking is an authentic experience.

Tourist engagement

1. I become integrated in the trekking activities.
2. I become engaged in the trekking activities.
3. I become an active trekker.
4. I become a participating member of the trekking activities.

Connectedness to nature

1. I often feel that I am a part of nature.
2. I often feel close to the natural world around me.
3. I feel a personal bond with things in my natural surroundings such as trees, wildlife, or the view on the horizon.
4. I feel connected to nature.
5. My own welfare is linked to the welfare of the natural world.

Quality of life

1. Trekking experience satisfies my overall needs.
2. Trekking experience plays a very important role in my social well-being.
3. Trekking experience plays an important role in my leisure well-being.
4. Trekking experience plays an important role in enhancing the quality of my life.