

# Hiking Tourism in Malaysia: Origins, Benefits and Post Covid-19 Transformations

Mohammad Ridhwan Nordin<sup>1</sup>, Salamiah A. Jamal<sup>2</sup>

<sup>1</sup>Department of Polytechnic Education and Community College, Ministry of Higher Education, Putrajaya, Malaysia, <sup>2</sup>Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Selangor, Malaysia

To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v11-i13/8504>

DOI:10.6007/IJARBS/v11-i13/8504

**Published Date:** 20 January 2021

## Abstract

Recreational hiking tourism in ecotourism or nature-based sites is associated with a range of individual health effect outcomes. Although these outcomes have been extensively studied, there is little narration in the academic literature about the investigation on hiking. Hiking is one of the popular ecotourism activities in Malaysia that immerse with nature and is connected with health and wellness benefits. This paper review hiking tourism foundation, development and significant contributions in a growing array of relevant publications, and it also discusses the future prospect of the sector on post Covid-19 pandemic. The review study traces down the hiking tourism evolution from origin to the transformation trend from the context of Malaysia. A total of 65 publications relevant to the present study were identified, as a result, this study anticipates six relevance and topicality in hiking tourism studies for the academic research. We concluded this study by having the discussion on trends and implications for governing bodies, hiking enthusiasts and future research.

**Keywords:** Ecotourism, Hiking, Health, Wellness, Covid-19.

## Introduction

In the pre-Covid19 era, the tourism industry was one of the fastest-growing economic sectors and has become a key driver for socio-economic progress globally (Nasir, Mohamad, Ghani & Afthanorhan, 2020). The world has seen the spectacular growth of this industry made of various sectors ranging from shopping tourism, medical tourism, adventure tourism, culture and heritage tourism and ecotourism. Ecotourism has become a growing sector of the tourism industry across the world (Carvache, Segarra & Carrascosa, 2019; Oviedo, Castellanos, Vega & Orgaz, 2016; She, Tian, Lu, Eimontaite, Xie & Sun, 2019; Vinaya & Binoy, 2020). Likewise, a core tourism product that is highly promoted by the government of Malaysia is ecotourism (Abdurahman, Ali, Khedif, Ahmad & Kiblat, 2016). Subsequently, Malaysia has taken a severe effort in marketing the country's uniqueness of ecotourism in the Visit Malaysia 2020 campaign (Ching, Lo, Suaidi, Azlan & Chin, 2019). However, apart from

providing the ecotourism attractions, there is also a crucial need to understand what makes ecotourism destinations demand increased.

According to Oh, Kim, Choi and Pratt (2019), undesirable outcomes from mass tourism has spark the alternative form of tourism which is ecotourism that requires social and environmental responsibility from all stakeholders and play the roles to slow down the impacts of mass tourism (Fang, 2020). Moreover, this alternative of tourism seeks to synchronize tourism with the preservation of nature and local culture. Researchers argued that ecotourism with the contribution of nature-based environments gives some of the intense and valuable experiences to the fulfilment of holistic wellness outcomes that makes these tourism segments as one of the fastest developing in the world (Brymer & Lacaze, 2013). It is observed that ecotourists travel to improve or enhance their wellness with more explicit activities for specific health outcomes.

Focusing on the wellness features and efforts, ecotourism embraces a range of concepts such as tourism in nature, adventure tourism, sustainable tourism, green tourism, rural tourism, wilderness tourism, responsible tourism (lonel, 2019) and wellness (Brymer & Lacaze, 2013; Shanahan, Astell, Barber, Brymer, Cox, Dean & Jones, 2019). Among those diverse dimensions, hiking is one tourist activity that is advocated as a connection concept, combining nature-based tourism, ecotourism and adventure tourism with the primary outcome of health and wellness (Abdurahman et al., 2016; Hassan, Hanim & Azmi, 2019; Hunt & Harbor, 2019; Lee, Manthiou, Chiang & Tang, 2017; Rhama, 2020). Notably, increasing deliberation on using natural environments for physical activity and recreation in promoting health and well-being has increased the interest of the tourists. Therefore, hiking, as physical activity in natural landscapes that give benefit to human health and wellness, has sparked the attention of industry practitioners and researchers (Lee et al., 2017).

### **Objectives and Methodology**

The first objective of this paper is to identify the factors that led to the development of hiking in Malaysia and its steady establishment as a nature-based adventure activity. Identifying these factors can help other areas which are directly or indirectly affected by this type of tourism to design lines of action that can strengthen and enhance these factors. This may permit them to develop and manage this activity more effectively for continuous competitiveness and sustainability. All of this is highly important in what is a favourable global context for the development of this type of tourism, either as the main activity or as a complementary activity in destinations that specialize in other forms of tourism. The changes in the market require a planned intervention that can strengthen this tourism sector in the country.

The second objective is to explore the benefits of hiking tourism on the perspective of mental health and wellness. And, for the last objective, this paper aims to predict the future transformation of this sector especially after the Covid-19 pandemic. In order to answer these objectives, a semi-systematic review was conducted to look at how research within this field has progressed over time or how hiking tourism has developed across research works. The following sources of information were used for this purpose:

(a) Scientific literature. A detailed reading of the available bibliography enabled the development of an initial framework regarding the state of the question analysed, and

identification of the key factors in the development and management of hiking tourism in Malaysia;

(b) Documentation of a technical nature such National Ecotourism Plan 2016-2015 provided by the Ministry of Tourism, Art and Culture (MOTAC) and National Parks Act 1980 by Department of Wildlife and National Park (PERHILITAN), that belongs to the Ministry of Water, Land and Natural Resources This provides, for different moments in time, basic information and inventories of the main routes and networks of paths for non-motorized mobility in Malaysia;

(c) Official websites for the Protected Areas in Malaysia. These websites offer information about programmes for signposting, promotion and maintenance of the hiking itineraries and/or networks available in these areas;

(d) Official websites for the promotion of tourism in the different states of the country. These websites offer information about the main hiking tourism products offered in each particular site. For example, Tourism Malaysia via its blog has promoted some places for hiking and camping in Kuala Lumpur.

## **Results**

### *Definition of Hiking*

Existing data from several studies had recommended the definition of hiking from westerners' perspectives. The word hiking is common in the English language. The Spanish defines hiking as an activity that involves following paths, which may or may not be signposted, on foot, for sporting and cultural purposes (Gómez-Martín, 2019; Maria Raya, Martinez & Celma, 2018). The Aussie defines hiking as 'walking,' 'trekking,' 'rambling,' 'strolling' and 'bushwalking' (Nordbo, Engilbertsson & Vale, 2014). Apart from that, The Canadian and American define as a long, vigorous walk, usually on trails and in the countryside, while the term walking is used for shorter, particularly urban walks (Kay & Moxham, 1996). Whereas, the British define it as all kinds of a walk, trekking, rambling, hillwalking, and fell walking, and New Zealanders define it as a long, vigorous walk or hike (Nordbo & Prebensen, 2015). In Norwegian, hiking is described as "going on a trip." Therefore, Svarstad (2010), argued hiking consists of leisure trips conducted on foot during the summer and on cross-country skis during the winter. In the present study, we developed a working definition of hiking based on the vast literature above and our natural setting.

Hiking tourism in Malaysia is a leisure outdoor recreation activity that involves physical and mental fitness. It takes shorter or longer walks (day hike or overnight) in the tropical natural environment setting of mountain or hill. Often in easy access ecotourism or nature-based tourism sites are intended for ecotourists to enjoy and appreciate the scenic beauty of mother nature, to explore and connected to nature and wilderness, to engage with the hiking enthusiast as well as to improve personal health and well-being (physically and mentally).

### *Hiking Tourism Trend*

In the literatures, significant of studies were taken from the perspective of western on the trend of hiking activities (Holt, Lombard, Best, Smiley & Quinn, 2019; Lee et al., 2017; Mackenzie & Hodge, 2019; Pomfret & Bramwell, 2014; UNWTO, 2014) and very few from eastern (Saha, Babai & Saha, 2018; Yuniawati, Ridwanudin & Pancawati, 2019). Nevertheless, from the perspective in Asia country, China has investigated several studies on the trend of their citizens practicing such activities (Cheng, 2018; Zong, Sun, Dai, & Rao, 2020).

Subsequently, from Asian countries such as Malaysia, the reported hiking trend of the citizens is still limited even though it is highly in demand. According to Hairom (2020), mountain hiking activities are becoming more robust in Malaysia due to the growing awareness of healthy lifestyle practices among Malaysians, continuous improvement on living standards of the citizen and transformation of tourism concepts, health, and wellness at ecotourism site in the nature-based setting with adventure activity such hiking. Besides that, the National Health and Morbidity Survey (NHMS) in 2015 showed that Malaysia became an obese country in which one in two adults in the country is overweight. Thus, Malaysians had availed of the abundant in its natural setting such a mountain for their health and well-being outcome. Therefore, it is crucial to discover the treasure of Malaysia's mother nature as the primary resource of hiking activity.

#### *Progress of Hiking Tourism in Malaysia*

Back to the history of how it began, according to Taher, Jamal, Sumarjan, & Aminudin (2015), hiking activities in Malaysia emerged in the 19th century with the British explorers who explored the mountains for wildflowers and introduced tea plantations into the highlands. Since then, the exploration of the mountain regions has become a trend. Eventually, many hikers came to realize the importance of hiking activities, especially health benefits; and others noticed the money-making potential of hiking activities and transformed hiking into a profitable business.

According to (Taher & Jamal, 2012; Yaakob, Mohamed & Aziz, 2012) most mountains in Malaysia run through the country's vast tropical rainforest regions which some are located in the ecotourism destinations. Mountainous regions in Malaysia comprise spectacular attractions such as wildlife, rivers, waterfalls, moss, rocks and caves. Such attractions have differentiated the Malaysian mountains from other mountains in the world. The mountains in this country are located in the tropical rainforest areas, which are the oldest forests and host a wide variety of wildlife. Ranging from Peninsular Malaysia to West Malaysia, hikers can choose different grades of hiking that are suitable for them as short as a day trip to as long as multiple days to experience the serenity of the Malaysian mountain. These unique characteristics provide perfect hiking tourism in Malaysia.

To date, there is scarce accurate information on how many mountains in Malaysia available for hiking. Nevertheless, Taher et al. (2015) reported that Malaysia has more than 300 mountains available for tourism use with a growing demand for hiking activities. Furthermore, Ithnin (2017) confirmed that there are twelve famous highest peak mountains in Malaysia, where seven highest peak mountains which are the so-called G7 in Peninsular Malaysia and the five highest peak mountains in West Malaysia, which are popular by the name of Big Five Borneo. The G7 mountains are comprising of Mount Tahan (Pahang), Mount Korbu (Perak), Mount Gayong (Perak), Mount Chamah (Kelantan), Mount Yong Yap, Mount Yong Belar and Mount Ulu Sepat (Perak-Kelantan Border). Whereas, the Big Five Borneo consists of Mount Kinabalu (Sabah), Mount Trusmadi (Sabah), Mount Tambuyukon (Sabah), Mount Murud (Sarawak) and Mount Mulu (Sarawak). According to Reusen (2015), amongst the most famous mountain in Malaysia that have become focal point hiking spots with the most incredible views are Mount Kinabalu (Sabah), Mount Nuang (Selangor), Mount Gayong (Perak), Mount Gagau (Terengganu), Mount Jerai (Kedah), Mount Tahan (Pahang), Mount

Angsi (Negeri Sembilan), Mount Ledang (Johor), Mount Berembun (Pahang) and Mount Korbu (Perak).

### *Hikers' Engagement*

In the past decade, customer engagement is gaining attention in the vast marketing literatures (Abraham, Sommerhalder & Abel, 2010; Brodie, Hollebeek, Jurić & Ilić, 2011; Hanna, Wijesinghe, Paliatsos, Walker, Adams & Kimbu, 2019; Lee et al., 2017; Lei, Ye, Wang & Law, 2020). The popularity gains through the positive association on organizational performance like increasing sales and profits and superior competitive advantage, as well as customer retention, loyalty, and purchase decisions. However, the customer engagement mainly focuses on the value co-creation between customers and the company (Hollebeek, Glynn & Brodie, 2014; Rather, Hollebeek & Islam, 2019; So, King & Sparks, 2014), which might have the risk neglecting other value co-creation process in a tourism destination.

The most comprehensive definition of customer engagement in marketing literature is defined as a psychological state incurred by interactive, co-creative, hiking tourist experiences with a focal agent/object (people/attraction/activities/encounters) in hiking experience relationships (Brodie et al., 2011; Huang & Choi, 2019). These advocated the role of hiking tourists as active participants who perceive and co-create the value of tourism experience (So, King, Sparks & Wang, 2016). Once hikers receive positive value from a service provider, they may be motivated to form a higher level of engagement with the service provider, either to receive more value in future transactions or for psychological reasons (Brodie, Ilic, Juric & Hollebeek, 2013).

Hikers' played a role as active participants who perceive and co-create the value of tourism experience. Hence, the evaluation of the perceived value of a destination is crucial to entice hikers' engagement. When hikers perceive significant value, they tend to engage more in tourism activities and further receive more benefits of visiting and participation in the destination. Thus, those destinations that do not provide what hikers seek, the engagement is expected to be much lesser (So et al., 2016).

### **Benefits of Hiking**

Hiking tourism has become a popular wellness travel trend across the world for its health value (Lee et al. (2017). Hiking is an activity that has successfully integrated into an appealing wellness supply (Rodrigues, Kastenholz & Rodrigues, 2010). Hiking tourism did generate non-economic benefits, which have also been quantified: health benefits to hiking tourists and the intrinsic value of hiking (Maria Raya et al., 2018). It is obvious that the hiking tourists are health-conscious consumers to the extent that they expect to achieve health benefits from their touristic experiences. Tourism activities are known to contribute largely to improving quality of life and creates satisfaction on experience in their lives (Kim, Woo & Uysal, 2015). Thus, tourists engaged in hiking activity are expected to receive the benefit offered, which could enhance their quality of life and satisfaction.

Hiking as an outdoor recreation activity, has recently been found to promote a wider range of benefits that include cost-effective pursuit, mental and physical rejuvenation, and activate physically spending time in nature (Gaffar, Yuniawati & Ridwanudin, 2019; Oh et al., 2019). Researchers confirmed that hikers portray a positive and happy feeling when they

come back from a trip as it helps in definite improvement on physical and mental fitness (Nordbo & Prebensen, 2015; Rodrigues et al., 2010; Vada, Prentice, Scott & Hsiao, 2020). Significant relationship exists between connection to nature and feeling happy (Capaldi, Dopko & Zelenski, 2014). Spending time in nature is correlated with tourists' quality well-being, which produces an outcome on anxiety reduction and harnessing overall tourist happiness (Farkić & Taylor, 2019). Nature experiences drive positive emotion on happiness, enjoyment, and contentment, thus, significantly helping enhanced psychological health.

The biophilia hypothesis proposed by Kellert and Wilson (1993), as cited in (Larson, Szczytko, Bowers, Stephens, Stevenson & Floyd (2019) validated connections with nature because humans evolved an innate affinity to make a relationship with the natural environment. Connected with nature refers to one's subjective sense of connection with the natural environment (Capaldi, Passmore, Nisbet, Zelenski & Dopko, 2015). Thus, people perform hiking activities to connect with the natural environment (Yuniawati et al., 2019). In addition, spending time in natural environments at ecotourism sites such National Park or nature-based tourism sites such eco-park (Brymer & Lacaze, 2013; Ferrari & Gilli, 2017) can benefit health and well-being, but exposure-response relationship is under-researched. Meredith, Rakow, Eldermire, Madsen, Shelley & Sachs (2020), reported spending at least 120 minutes a week in a natural environment is associated with good health and wellbeing.

As a tourism product, some of the immediate benefits of participating in hiking activities are visitors enjoy walking on trails, observe beautiful wildlife sceneries, and become connected with nature. As a long-term consequence, hiking activities in nature setting such ecotourism sites could help people reduce stress, improve sleep quality, and enhance mental health, which promote quality of life (QOL) (Cheesbrough, Garvin & Nykiforuk, 2019; Holt et al., 2019). Other than that, hikers do look for other meaningful experiences or value in hiking, such as learning about an ecosystem, appreciating wildlife, and participating in the conservation of natural resources (Carvache et al., 2019; Kim, Lee, Uysal, Kim & Ahn, 2015; Mutanga, Vengesayi, Chikuta, Muboko & Gandiwa, 2017).

### **The Future of Hiking Tourism on Post Covid-19**

To date, countries all over the world are battling with a pandemic of unvaccinated virus which is called novel coronavirus disease (Covid-19). The Covid-19 was first identified in Wuhan, Hubei province, and has received substantial attention globally. As of February 12, 2020, many countries declared travel restrictions on the foreign nationals to contain Covid-19 (Zhai & Du, 2020). In Malaysia, the first Covid-19 case was confirmed on January 25, 2020, which involved three Chinese citizens, who had entered Johor Bharu, Malaysia via Singapore on January 23, 2020 (Foo, Chin, Tan, & Phuah, 2020). Malaysia had imposed the Movement Control Order (MCO) throughout the country on March 18, 2020. While, at the time of writing, Malaysia had entered second phase of Recovery Movement Control Order (RMCO) from 1<sup>st</sup> September until 31<sup>st</sup> December 2020. From a total population of 32 million, Malaysia reported 9340 Covid-19 infections cases, with 127 deaths as per end of August 2020.

To slow or stop the pandemic of Covid-19 spread at national or community level, WHO has urged all humankind to stay at home, do social distancing, work from home, online distance learning, virtual meeting and highly care personal hygiene and protection practices especially washing hands and wearing face masks. All of these public health measures aim to

stop disease spread towards the community. The pandemic does not only cause physical symptoms and even death for thousands, but this disease has also had a huge impact on the quality of life and wellbeing of the citizens (Rathakrishnan & Kamaluddin, 2020). Thus, Wen, Kozak, Yang and Liu (2020) argued, nature-based activity (hiking, trekking, wild-life observation or nature interpretation) such in protected park could be an opportunity to be promoted to the post Covid-19 tourists to breath the fresh air, connected to nature and rejuvenate themselves after overwhelmed stressful with the outbreak period.

Likewise, in 2003 after SARS crisis, new spurs to travel to nature-based areas became evident (Hong et. al, 2020). Nature-based areas were likely to be target destination by post-crisis tourist. Thus, there was a potential marketing emphasis that nature-based tourism types could be invigorated and expanded after the Covid-19 crisis. This is in line with the Sustainable Development Goals 2030 Agenda which emphasis on people's quality of life and well-being (Ramkissoon, Mavondo, & Uysal, 2018). However, the associated environmental changes such during this pandemic Covid-19 outbreak will change the landscape of the hiking tourism sector. During the Movement Control Order (MCO) or travel restriction, hikers' spending most of their time indoors, and weaken their nature relatedness, making them less likely to enjoy nature's health benefits. Consequently, the health risk especially on physiological and psychological among them arises and becomes significant.

With the social distancing measure being practiced during Covid-19, and will continue in practice on post Covid-19, hiking at highly visitation mountains such Mount Angsi or hilly landscape such Broga Hill which received over 500-day hikers daily during weekend, will be a challenge for the authorities. To implement the carrying capacity on a number of visitors to ensure the social distancing practiced at accessible and popular ecotourism sites such Mount Angsi or Broga hill, is disputed. Moreover, practice on limitation on visitor hiking will give impact to the sustainability of maintaining the operation of the ecotourism site due to decreasing collection of the concession permit. The very minimal amount of MYR5 for permit fee imposed by the governing body will be returned back to the development of facilities and maintaining of eco-site for visitor convenience. Thus, if decreasing the number of visitors, it will give a huge impact on the budget to ensure the sustainability of the facility and resources of the site.

Another impact on Covid-19 is the perceived risk and willingness to hike. As some predict that the pandemic will persist until next year, hikers with a high level of perceived risk will ensure thorough preparation before hiking, including obtaining travel health insurance, bringing medication, face mask and sanitizer for use while travelling, social distancing and undertaking food and water avoidance measures during travel. Whereas the low level of perceived risk hikers, will restrict themselves for hiking because of infection fears and anxiety. Hence, the uncertainty and anxiety of the pandemic has heavily impacted the tourism industry especially, ecotourism sectors, and it is important to understand more about tourism recovery from the crises. By nature, tourism is tied to the concept of risk in such a way that tourist behaviour and destination image are significantly influenced by visitor perceptions of security, risk and safety. Therefore, recovery strategies are needed and activate immediately and standard procedures need to develop as guidance to operationalize the hiking activity.

## Conclusion

To sum up, this study has reviewed existing hiking tourism literatures which provide substantial support for the assertion that hiking tourism in nature has a positive impact on human physiological and psychological. Specifically, the findings indicate the strong potential for eco-tourism recreation to positively affect mental health outcomes as well as decrease levels of anxiety, depression and stress.

Our findings reveal six major results in the current hiking tourism literature: the extensive hiking definition from westerner's perspective to easterner's perspective, the trend on hiking tourism, progress hiking tourism in Malaysia, hiking engagement, benefit on hiking and future of hiking tourism on post Covid-19. Predominantly research has focused on the hiking tourism benefit towards the health and wellness outcome, while less attention has been given to elements of risk and uncertain result from the current pandemic Covid-19. Therefore, risk-taking attitudes may have an important role in explaining the behaviours of hikers. Understanding hiker's behaviour on post Covid-19 will allow park managers to provide procedures on safe hiking during post pandemic.

## Corresponding Author

Salamiah A. Jamal. Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Selangor, Puncak Alam Campus, 42300 Selangor, Malaysia.

E-mail: drsalamiah@uitm.edu.my

## References

- Abdurahman, A. Z. A., Ali, J. K., Khedif, L. Y. B., Bohari, Z., Ahmad, J. A., & Kibat, S. A. (2016). Ecotourism Product Attributes and Tourist Attractions: UiTM Undergraduate Studies. *Procedia - Social and Behavioural Sciences*, 224 (August 2015), 360–367.
- Abraham, A., Sommerhalder, K., & Abel, T. (2010). Landscape and well-being: A scoping study on the health-promoting impact of outdoor environments. *International Journal of Public Health*, 55(1), 59–69.
- Brodie, R. J., Hollebeek, L. D., Juric, B., & Ilic, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252–271.
- Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105–114.
- Brymer, E., & Marie Lacaze, A. (2013). The benefits of ecotourism for visitor wellness. In R. Ballantyne and J. Packer (Eds.), *International Handbook on Ecotourism* (1st Edition, pp. 217–229). Edward Elgar Publishing Limited.
- Capaldi A., C. A., Dopko L., R. L., & Zelenski, J. M. (2014). The relationship between nature connectedness and happiness: A meta-analysis. *Frontiers in Psychology*, 5(AUG), 1–15.
- Capaldi, C., Passmore, H.-A., Nisbet, E., Zelenski, J., & Dopko, R. (2015). Flourishing in nature: A review of the benefits of connecting with nature and its application as a wellbeing intervention. *International Journal of Wellbeing*, 5(4), 1–16.
- Carvache-Franco, M., Segarra-Oña, M., & Carrascosa-López, C. (2019). Segmentation by motivation in ecotourism: Application to protected areas in Guayas, Ecuador. *Sustainability (Switzerland)*, 11(1), 1–19.
- Cheesbrough, A. E., Garvin, T., & Nykiforuk, C. I. J. (2019). Everyday wild: Urban natural areas, health, and well-being. *Health and Place*, 56(January), 43–52.



- Cheng, M. (2018). A cross-cultural comparison of East and Western academic literature on adventure tourism. *Tourist Studies*, 18(4), 357–374.
- Ching, J. L., Lo, M. C., Suaidi, M. K., Mohamad, A. A., & Chin, C. H. (2019). Tourists' Perspective on Ecotourism Destination Competitiveness: The Role of Tangible Components. *International Journal of Academic Research in Business and Social Sciences*, 9(11), 335–357.
- Fang, W. T. (2020). Ecotourism. In W. T. Fang (Ed.), *Tourism in Emerging Economies* (pp. 177–207). Springer Nature Singapore.
- Farkic, J., & Taylor, S. (2019). Rethinking Tourist Wellbeing through the Concept of Slow Adventure. *Sports*, 7(8), 190.
- Ferrari, S., & Gilli, M. (2017). Protected natural areas as innovative health tourism destinations. In M. K. Smith & L. Puczko (Eds.), *The Routledge Handbook of Health Tourism* (1st ed., pp. 419–429). Routledge.
- Foo, L.-P., Chin, M.-Y., Tan, K.-L., & Phuah, K.-T. (2020). The impact of COVID-19 on tourism industry in Malaysia. *Current Issues in Tourism*, 0(0), 1–5. <https://doi.org/10.1080/13683500.2020.1777951>
- Gaffar, V., Yuniawati, Y., & Ridwanudinm, O. (2019). A Study of Outdoor Recreation Motivation and Activity Preferences. *Journal of Southwest Jiaotong University*, 54(3).
- Gomez-Martin, M. B. (2019). Hiking tourism in Spain: Origins, issues and transformations. *Sustainability (Switzerland)*, 11(13).
- Hairom, N. (2020). Pendaki bukan sekadar jadi pelancong gunung. *Analisis Sinar*, 1–7. <https://www.sinarharian.com.my/article/61373/Analisis-Sinar/Pendaki-bukan-sekadar-jadi-pelancong-gunung>
- Hanna, P., Wijesinghe, S., Paliatsos, I., Walker, C., Adams, M., & Kimbu, A. (2019). Active engagement with nature: outdoor adventure tourism, sustainability and wellbeing. *Journal of Sustainable Tourism*, 27(9), 1355–1373.
- Hassan, H., Hanim, N., & Azmi, M. (2019). Satisfaction in Tourism Operations. *International Journal of Innovation, Creativity and Change*, 8(12), 18–35. [www.ijicc.net](http://www.ijicc.net)
- Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149–165.
- Holt, E. W., Lombard, Q. K., Best, N., Smiley-Smith, S., & Quinn, J. E. (2019). Active and passive use of green space, health, and well-being amongst university students. *International Journal of Environmental Research and Public Health*, 16(3).
- Hong, Y., Cai, G., Mo, Z., Gao, W., Xu, L., Jiang, Y., & Jiang, J. (2020). The impact of covid-19 on tourist satisfaction with b&b in zhejiang, china: An importance– performance analysis. *International Journal of Environmental Research and Public Health*, 17(10). <https://doi.org/10.3390/ijerph17103747>
- Huang, S., & Choi, H. S. C. (2019). Developing and validating a multidimensional tourist engagement scale (TES). *Service Industries Journal*, 39(7–8), 469–497.
- Hunt, C. A., & Harbor, L. C. (2019). Pro-environmental tourism: Lessons from adventure, wellness and eco-tourism (AWE) in Costa Rica. *Journal of Outdoor Recreation and Tourism*, July, 100202.
- lonel, M. (2019). Ecotourism and Its Importance on the Tourism Market. *“Ovidius” University Annals, Economic Sciences Series*, XIX (2), 300–305.

- Ithnin, H. (2017). 12 Gunung Popular Idaman Pendaki. *Harian Metro Online*, 1–6. <https://www.hmetro.com.my/nuansa/2017/12/292989/12-gunung-popular-idaman-pendaki>
- Kay, G., and Moxham, N. (1996). Paths for whom? Countryside access for recreational walking. *Leisure Studies*, 15(3), 171–183.
- Kellert, S., & Wilson, E. O. (1993). *The Biophilia Hypothesis*, Island Press, Washington.
- Kim, H., Lee, S., Uysal, M., Kim, J., & Ahn, K. (2015). Nature-Based Tourism: Motivation and Subjective Well-Being. *Journal of Travel and Tourism Marketing*, 32(September), S76–S96.
- Kim, H., Woo, E., & Uysal, M. (2015). Tourism experience and quality of life among elderly tourists. *Tourism Management*, 46, 465–476.
- Larson, L. R., Szczytko, R., Bowers, E. P., Stephens, L. E., Stevenson, K. T., & Floyd, M. F. (2019). Outdoor Time, Screen Time, and Connection to Nature: Troubling Trends Among Rural Youth? *Environment and Behaviour*, 51(8), 966–991.
- Lee, S. A., Manthiou, A., Chiang, L., & Tang, L. R. (2017). An assessment of value dimensions in hiking tourism: Pathways toward quality of life. *International Journal of Tourism Research*, 20(2), 236–246.
- Lei, S. I., Ye, S., Wang, D., & Law, R. (2020). Engaging Customers in Value Co-Creation Through Mobile Instant Messaging in the Tourism and Hospitality Industry. *Journal of Hospitality and Tourism Research*, 44(2), 229–251.
- Mackenzie, S. H., & Hodge, K. (2019). Adventure recreation and subjective well-being: a conceptual framework. *Leisure Studies*, 00(00), 1–15.
- Raya, M. J., Martínez-García, E., & Celma, D. (2018). Economic and social yield of investing in hiking tourism: the case of Berguedà, Spain. *Journal of Travel and Tourism Marketing*, 35(2), 148–161.
- Meredith, G. R., Rakow, D. A., Eldermire, E. R. B., Madsen, C. G., Shelley, S. P., & Sachs, N. A. (2020). Minimum Time Dose in Nature to Positively Impact the Mental Health of College-Aged Students, and How to Measure It: A Scoping Review. *Frontiers in Psychology*, 10(January), 1–16.
- Mutanga, C. N., Vengesayi, S., Chikuta, O., Muboko, N., & Gandiwa, E. (2017). Travel motivation and tourist satisfaction with wildlife tourism experiences in Gonarezhou and Matusadona National Parks, Zimbabwe. *Journal of Outdoor Recreation and Tourism*, 20(June), 1–18.
- Nasir, M. N. M., Mohamad, M., Ghani, N. I. A., & Afthanorhan, A. (2020). Testing mediation roles of place attachment and tourist satisfaction on destination attractiveness and destination loyalty relationship using phantom approach. *Management Science Letters*, 10(2), 443–454.
- Nordbo, I., Engilbertsson, H. O., & Vale, L. S. R. (2014). Market Myopia in the Development of Hiking Destinations: The Case of Norwegian DMOs. *Journal of Hospitality Marketing and Management*, 23(4), 380–405.
- Nordbo, I., & Prebensen, N. K. (2015). Hiking as Mental and Physical Experience. *Advances in Hospitality and Leisure*, 11, 169–186.
- Oh, M., Kim, S., Choi, Y., & Pratt, S. (2019). Examination of benefits sought by hiking tourists: a comparison of impact-range performance analysis and impact asymmetry analysis. *Asia Pacific Journal of Tourism Research*, 24(8), 850–864.
- Oviedo-García, M. Á., Castellanos-Verdugo, M., Vega-Vázquez, M., & Orgaz-Agüera, F. (2016). The mediating roles of the overall perceived value of the ecotourism site and attitudes

- towards ecotourism in sustainability through the key relationship ecotourism knowledge-ecotourist satisfaction. *International Journal of Tourism Research*.
- Pomfret, G., & Bramwell, B. (2014). The characteristics and motivational decisions of outdoor adventure tourists: a review and analysis. *Current Issues in Tourism*, January 2015, 37–41.
- Ramkissoon, H., Mavondo, F., & Uysal, M. (2018). Social involvement and park citizenship as moderators for quality-of-life in a national park. *Journal of Sustainable Tourism*, 26(3), 341–361. <https://doi.org/10.1080/09669582.2017.1354866>
- Rathakrishnan, B., & Kamaluddin, M. R. (2020). Mental Health Issues during COVID-19 Pandemic : Treatment and How to Overcome. *MJP Online Early*.
- Rather, R. A., Hollebeek, L. D., & Islam, J. U. (2019). Tourism-based customer engagement: the construct, antecedents, and consequences. *Service Industries Journal*, 39(7–8), 519–540.
- Reusen, B. (2015). 10 Mountains to Climb in Thailand with the Most Incredible Views. *Tripzilla.Com*. <https://www.tripzilla.com/mountains-thailand-incredible-views/56759>
- Rhama, B. (2020). The meta-analysis of ecotourism in National Parks. *African Journal of Hospitality, Tourism and Leisure*, 9(1), 1–17.
- Rodrigues, A., Kastenholz, E., & Rodrigues, A. (2010). Hiking as a relevant wellness activity - an exploratory study of hiking tourists in portugal. *Journal of Vacation Marketing*, 16(4), 331–343.
- Saha, S. K., Babai, T. C., & Saha, S. (2018). Adventure Tourism in Meghalaya. *Journal of Tourism & Hospitality*, 07(02).
- Shanahan, D. F., Astell–Burt, T., Barber, E. A., Brymer, E., Cox, D. T. C., Dean, J., Depledge, M., Fuller, R. A., Hartig, T., Irvine, K. N., Jones, A., Kikillus, H., Lovell, R., Mitchell, R., Niemelä, J., Nieuwenhuijsen, M., Pretty, J., Townsend, M., van Heezik, Y., ... Gaston, K. J. (2019). Nature–Based Interventions for Improving Health and Wellbeing: The Purpose, the People and the Outcomes. *Sports*, 7(6), 141.
- She, S., Tian, Y., Lu, L., Eimontaite, I., Xie, T., & Sun, Y. (2019). An exploration of hiking risk perception: Dimensions and antecedent factors. *International Journal of Environmental Research and Public Health*, 16(11).
- So, K. K. F., King, C., & Sparks, B. (2014). Customer Engagement with Tourism Brands: Scale Development and Validation. *Journal of Hospitality and Tourism Research*, 38(3), 304–329.
- So, K. K. F., King, C., Sparks, B. A., & Wang, Y. (2016). The Role of Customer Engagement in Building Consumer Loyalty to Tourism Brands. *Journal of Travel Research*, 55(1), 64–78.
- Svarstad, H. (2010). Why hiking? Rationality and reflexivity within three categories of meaning construction. *Journal of Leisure Research*, 42(1), 91–110.
- Taher, S. H. M., & Jamal, S. A. (2012). Determinants of mountaineers' decision to climb: An innovative marketing for mountaineering tourism. *ICIMTR 2012 - 2012 International Conference on Innovation, Management and Technology Research*, 646–651.
- Taher, S. H. M., Jamal, S. A., Sumarjan, N., & Aminudin, N. (2015). Examining the structural relations among hikers' assessment of pull-factors, satisfaction and revisit intentions: The case of mountain tourism in Malaysia. *Journal of Outdoor Recreation and Tourism*, 12, 82–88.
- UNWTO. (2014). Global Report on Adventure Tourism. *Report*, 9, 88.

- Vada, S., Prentice, C., Scott, N., & Hsiao, A. (2020). Positive psychology and tourist well-being: A systematic literature review. *Tourism Management Perspectives*, 33(December 2019), 100631.
- Kumara, V. K. S., & Binoy, T. A. (2020). "Eco -tourism for natural and cultural heritage protection- A study on Kudremukha National Park, Karnataka." *Our Heritage*, 68(30), 2246–2257.
- Wen, J., Kozak, M., Yang, S., and Liu, F. (2020). COVID-19: potential effects on Chinese citizens' lifestyle and travel. *Tourism Review*, March. <https://doi.org/10.1108/TR-03-2020-0110>
- Yaakob, S. S. N., Mohamed, S., & Aziz, A. (2012). Mountain trails as an ecotourism product in Malaysia: Proposed classification and grading. *Malaysian Forester*, 75(2), 119–126.
- Yuniawati, Y., Ridwanudinm, O., & Pancawati, D. (2019). An Investigation into hiking motivation. *International Journal of Academic Research in Business and Social Sciences*, 9(3), 782–788.
- Zhai, Y., & Du, X. (2020). Mental health care for international Chinese students affected by the COVID-19 outbreak. *The Lancet Psychiatry*, 7(4), e22. [https://doi.org/10.1016/S2215-0366\(20\)30089-4](https://doi.org/10.1016/S2215-0366(20)30089-4)
- Zong, J. T., Sun, J., Dai, J. M., & Rao, F. M. (2020). Research on development of health tourism products in Qinling Mountains. *Advances in Social Science, Education and Humanities Research*, 403(1), 64–71.