



REVISITING PERCEIVED DETERMINANTS OF TOURISM DESTINATION COMPETITIVENESS AMONG TOURISTS: THE CASE OF NATIONAL PARKS IN SARAWAK, MALAYSIA

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How to cite (APA style): Thong, J.-Z., Lo, M.C., Ramayah, T., Mohamad, A.A. (2023). Revisiting perceived determinants of tourism destination competitiveness among tourists: The case of national parks in Sarawak, Malaysia. *Turyzm/Tourism*, 33(1), 93–107. <https://doi.org/10.18778/0867-5856.33.1.09>

ABSTRACT

The present study aims to widen the existing literature by discovering potential determining factors at selected ecotourism destinations, primarily involving Bako, Niah, Kubah, Gunung Gading and Gunung Mulu National Parks. A closed questionnaire was answered by 188 respondents. Preliminary analyses were performed and partial least square structural equation modeling was employed as the analytical measure, thus discovering the significant role of destination resource constructs in the enhancement of ecotourism competitiveness in Sarawak, Malaysia. The statistical findings of the current work revealed that endowed resources (natural resources and cultural heritage attractions), created resources (range of activities) as well as supporting resources (destination accessibility and quality of tourism services) lead to enhanced tourism destination competitiveness. The research adds to the growing body of knowledge examining the perspectives of tourists towards the determining factors of destination competitiveness, while providing meaningful insights for industry actors, thus enabling effective planning of management and development. The present work offers empirical evidence that gives information for industry stakeholders, including business operators, policy makers and tourism planners in order for natural tourism destinations to prosper.

KEYWORDS

endowed resources, created resources, supporting resources, destination competitiveness, structural equation modeling

ARTICLE INFORMATION DETAILS

Received:
1 November 2022
Accepted:
14 April 2023
Published:
19 June 2023

1. INTRODUCTION

Tourism, a multifarious phenomenon, is a broad term that encompasses a staggering array of entities, sectors or subjects, activities, behaviors, and the movement of people between locations or countries (Baggio, 2019). In other words, tourism functions as a mechanism that

boosts a destination's domestic economy (Carmignani, Moyle, 2019). Tourism is one of the service sectors, and is often faced with a tremendous amount of competition within the industry (Jashi, 2013). According to data from the World Tourism Organization (2019), a total of 1.4 billion tourists arrived at foreign destinations in 2018, two years ahead of its long-term estimate from 2010.

The tourism industry has experienced remarkable expansion over the years, and travelers are increasingly looking for fresh trips for leisure, such as natural tourist locations (Lin, Yeh, 2013) and to 'disconnect to reconnect' with Mother Nature (Fromm, 2017).

Ecotourism has been effective in attracting the attention of important parties, including both governments and non-governmental organizations, as well as industry participants, due to the significant role it plays in boosting economic activity and enhancing local society (Bakar et al., 2016; Zoto, Qirici, Polena, 2013). The number of tour operators and agents that participate as providers for ecotourism travel has increased dramatically over time in the respective sectors (Tourism Malaysia, 2018). Indeed, tourists are increasingly visiting natural areas for vacations because of the interesting local natural, cultural and historical treasures (Huh, Uysal, 2004). Consequently, a new market niche for the tourism sector has been developed as a result of shifting visitor travel preferences. Additionally, travelers are sometimes drawn to these locations because of their distinctive natural surroundings, sometimes even magnificent landscapes (Wilson et al., 2001), as well as the mood created by their distinct ethnicities.

However, the growing rivalry within the industry increasingly leads to concerns, specifically in the assurance of effective tourism development (Hanafiah, Hemdi, Ahmad, 2014; Triyanto, Iwu, Musikavanhu, 2018). Natural locations are surrounded by lush vegetation and a wealth of resources. In fact, previous research has shown that tourists are drawn to natural places because of their unique cultures, stunning landscapes and natural surroundings, as well as the sense of community (Erokhin, Hejiman, Ivolga, 2014; Trukhachev, 2015). While having more to offer than metropolitan attractions like well-known cities, these places are less desirable to tourists (Amoah, Radder, Eyk, 2018; Lo et al., 2013). Thus, the current emerging trend of nature-based tourism leads to the necessity of effective management and development plans to eliminate risks of over-tourism (Centre for Responsible Travel [CREST], 2018), in conjunction with the effort to stay competitive within the industry.

Thus, the present study involved the investigation of endowed resource elements, natural resources and cultural heritage attractions; created resources comprising tourism infrastructure and the range of activities; along with supporting resources such as accessibility and the quality of tourism services, particularly in the five studied national parks of Sarawak. While scholars have found that significant drivers of tourism location competitiveness include travelers' attitudes (Barsky, Nash, 2002; Carneiro, Lima, Silva, 2015), the current study aims to explore

how a destination's competitiveness development is influenced by these resources, according to domestic tourists' perceptions.

2. LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

2.1. COMPETITIVENESS THEORY

Comparative resource and competitive advantage notions are frequently employed in competitiveness theory to emphasize the theoretical underpinnings of destination competitiveness models (Mihalic, 2000; Ritchie, Crouch, 2003; Wilde, Cox, 2008). Additionally, according to Crouch and Ritchie (1999), comparative resources are the primary draws (such as the natural environment and cultural resources) for a particular tourist destination, whereas competitive advantage refers to the more sophisticated components that include created resources, which comprise tourism facilities and infrastructure for a destination's competitiveness. Subsequently, scholars such as Navickas and Malakauskaite (2009) and Poon (1993), have highlighted the importance of using comparative resource and competitive advantage notions when examining the competitiveness of a tourist location.

Recent studies have examined the theory of competitiveness to clarify how both endowment (comparative advantage) and created (competitive advantage) contribute to destination competitiveness development (Oye, Okafor, Kinjir, 2013; Yozcu, 2017; Zehrer, Smeral, Hallmann, 2017). In light of the effects of endowed resources, created resources and supporting resources, competitiveness theory serves as the foundation for this study's explanation of how to develop the competitiveness of a destination. These resources are anticipated because it is thought that they will have a significant impact on the competitiveness of tourism destinations.

2.2. TOURISM DESTINATION COMPETITIVENESS

Strong studies and emphasis on the destination competitiveness (DC) idea have been made in tourism literature (Angelkova et al., 2012; Natalia et al., 2019). Numerous studies have discussed the need for a tourist location to become more competitive in order to achieve sustainability in the tourism sector (Lee, King, 2006; Muresan et al., 2019). Given the current status of the tourist market, strong data demonstrate the necessity for the identification of a tourism destination's distinctive selling propositions, which help to sustain a destination's competitiveness (Rahmiati, Othman,

Tahir, 2020). Following that, contemporary studies have postulated the capability for progressive tourism competitiveness development in a destination through continuous discovery of distinctive characteristics and new propositions (Guo, Jiang, Long, 2020; Rodriguez-Diaz, Pulido-Fernandez, 2020; Thong et al., 2019).

Over the decades, the terms “competitiveness” and “tourism destination competitiveness” have repeatedly been defined by several destination competitiveness models, and one of the earliest was Porter’s diamond model (Porter, 1990). Subsequently, numbers of components were contained within other models, comprising conditions associated with factors and demand-related, supporting industries and firm strategies as well as structure and rivalry. Successively, another model of destination competitiveness has been propounded, distinctively categorizing numerous competitive factors into three classifications, specified by country, industry and firms (Crouch, Ritchie, 1999).

In essence, to determine a destination’s competitiveness, subsequent derivations have considered both core resources and attractor features alongside other business-related aspects. On the other hand, past studies have postulated the potential of a tourism destination to gain increased competitiveness through time, while subsequent scholars (Enright, Newton, 2004; Yoon, 2002) have established tourism destination competitiveness models in conjunction with the model by Ritchie and Crouch in 2003.

Comparative advantage is defined as the extent for natural and cultural resources to be present in a tourist destination (Bobirca, Cristureanu, 2008); competitive advantage, on the other hand, refers to the capability of improving the competitiveness of a destination by means of these resources (Gupta, 2015). Conversely, the competitive advantage of a destination is significantly enhanced by created resources, comprising tourist facilities and tourism infrastructure (Erislan, 2016). Therefore, natural resources and attractions, ranging from flora and fauna to cultural heritage, ought to be encompassed in a model of a destination for the purpose of promotion and to be recognized as fully competitive.

Presently, in accordance with the Integrated model of destination competitiveness by Dwyer and Kim (2003), the research framework incorporated in this study concentrates on the first three determining categories of factors, namely endowed, created and supporting resources.

2.3. ENDOWED, CREATED AND SUPPORTING RESOURCES

Endowed, commonly known as inherited resources, include both cultural and natural elements (e.g. historic sites, traditional art and heritage) as well as unspoiled

natural environment, while created resources are the types of resource that were ‘built’ to influence the competitiveness of a destination, and this includes special events, tourism infrastructure, shopping, the range of available activities and entertainment (Dwyer, Kim, 2003; Zainuddin, Radzi, Zahari, 2016). Supporting resources mainly comprise factors that possess a secondary effect on tourists’ motivation to travel (Vengesai, Mavondo, Reisinger, 2013), ranging from a destination’s availability of infrastructure (Crouch, 2007), accessibility, local hospitality (Dwyer et al., 2004), tourism services as well as communication between tourists and residents.

It is crucial that endowed, created and supporting resources are preserved or reinforced to ensure successful tourism destination development. While scholars (Zakariya, Ibrahim, Wahab, 2019) have propounded that the natural resources component receives continual emphasis as fundamental for tourism destinations, the emergence of cultural heritage attractions as a development pillar for community’s economy and identity cultivator has led to their recognition as one of the indispensable elements in developing tourism (Park, 2014; Poria, Ashworth, 2009; Potashova, Girijchuk, 2019).

Created resources, on the other hand, were also deemed as a significant contributor in developing a destination’s competitiveness. Currently, the resources encompassed here concern tourism infrastructure and the range of activities as contributing elements in developing competitive tourism destinations. Past work has highlighted the importance of these ancillary features in a destination, which are inclusive of accommodation facilities, electrical supply, telecommunication systems and other facilities deemed relevant in influencing tourists’ travel experiences. Concurrently, during tourists’ ‘time off’, activities and events are propounded as enabling experiential learning (Law, Lo, 2016), while validations were provided by subsequent studies, indicating that a tourism destination’s competitiveness can be further enhanced by the availability of activities (Ayikoru, 2015; Vengesai, Mavondo, Reisinger, 2013).

Apart from created resources, the emphasis on strengthening supporting resources in a tourism destination is crucial in the effort to boost competitiveness. Supporting resources typically comprise quality of services, accessibility and accommodation. As it is common for natural tourism destinations to be located at remote areas, the significance of accessibility and quality of tourism services in boosting the competitiveness of these sites has been highlighted by previous studies (Goffi, 2013; Setokoe, Ramukumba, Ferreira, 2019). The present work viewed accessibility as ease-of-access where tourists are assisted to travel from urban to designated ecotourism destinations (Chi, Qu, 2008;

Dwyer, Kim, 2003), whereby the quality of tourism services is mainly predicted for an ecotourism destination's cleanliness and staff friendliness (Murphy, Pritchard, Smith, 2000).

2.4. DEVELOPMENT OF HYPOTHESES

In sum, the importance of the necessary resources and their roles in enhancing tourism destination competitiveness has been highlighted in previous studies. Indeed, destination competitiveness is important to the tourism industry, thus, to suggest a more comprehensive model for the development of tourism destination competitiveness, it is critical to conduct an in-depth investigation into the causes and effects. Following the discussion here, the development of hypotheses is as follows:

H₁: Natural resources are positively related to destination competitiveness.

H₂: Cultural heritage attractions are positively related to destination competitiveness.

H₃: Tourism infrastructure is positively related to destination competitiveness.

H₄: The range of activities is positively related to destination competitiveness.

H₅: Destination accessibility is positively related to destination competitiveness.

H₆: Quality of tourism services is positively related to destination competitiveness.

3. METHODOLOGY

3.1. RESEARCH CONTEXT

Sarawak, one of the 13 states located within Malaysia and stretching along the northwest coast of Borneo, is renowned for its abundant natural and cultural elements (Er, Simon, 2015). Undeniably, Malaysia's tourism sector significantly contributes to the country's economic expansion. As a result, to ensure a long-term and consistent economic contribution, competitiveness enhancement and the sustainability of tourism destinations are vital. Sarawak has consequently developed into a fascinating and distinctive tourist destination as a result of its unique cultural, ecological and ecotourism products (Zainuddin, Radzi, Zahari, 2016). In line with their strategy to create sustainable tourism, many authorities, notably the federal government of Malaysia and the state government of Sarawak, have given nature-based tourism, often known as ecotourism, significant attention and emphasis (Chua, 2022).

3.2. SURVEY DESIGN AND MEASUREMENT

A closed questionnaire consisting of 32 items was adapted from past studies (Canny, Hidayat, 2012; Dwyer, Kim, 2003; Hallmann, Muller, Feiler, 2014; Kozak, Rimmington, 1999; Lee, King, 2006; Murphy,

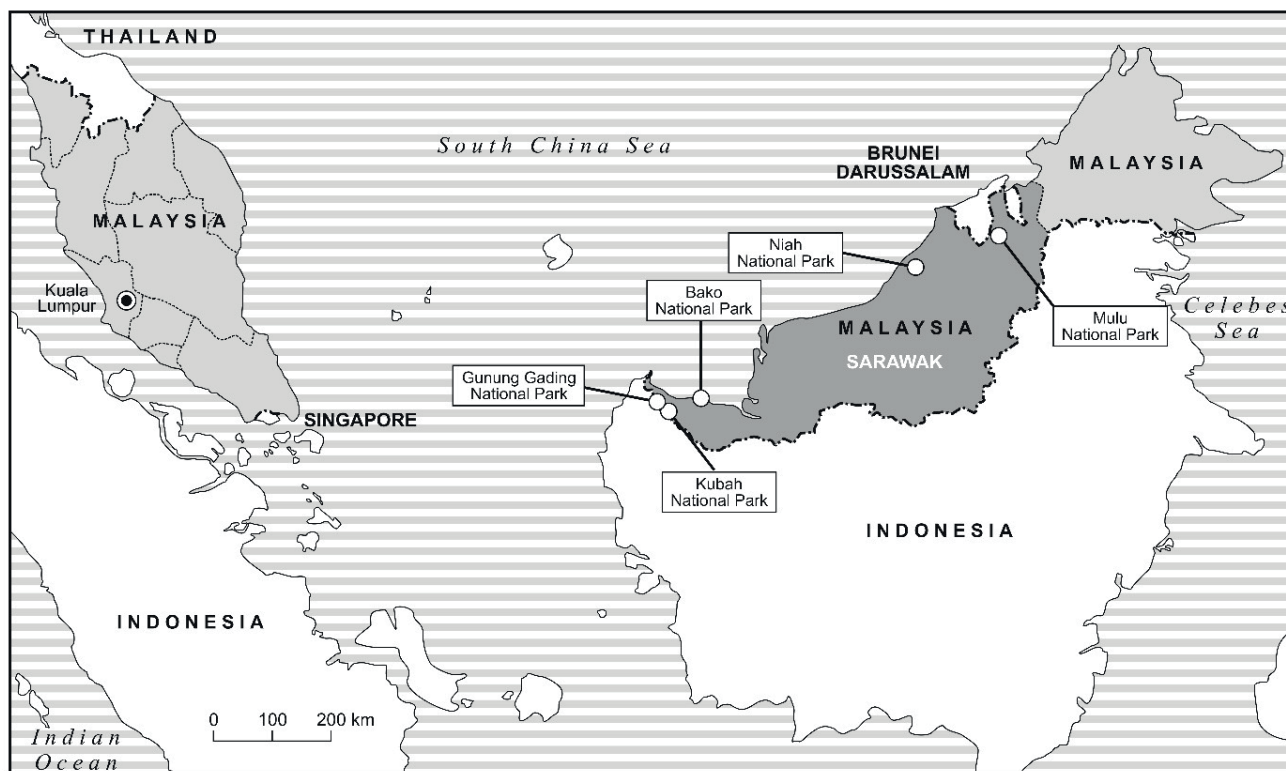


Figure 1. Study locations
Source: authors' own work

Table 1. Profiles of respondents

| Demographic variable | Category | <i>n</i> | % |
|----------------------|---------------------------------------|----------|------|
| Age | 16–20 | 8 | 4.3 |
| | 21–30 | 85 | 45.2 |
| | 31–40 | 49 | 26.1 |
| | 41–50 | 23 | 12.2 |
| | 51–60 | 19 | 10.1 |
| | 60+ | 4 | 2.1 |
| Gender | male | 72 | 38.3 |
| | female | 116 | 61.7 |
| Education level | high school or below | 35 | 18.6 |
| | diploma | 13 | 6.9 |
| | degree or professional qualifications | 134 | 71.3 |
| | postgraduate | 6 | 3.2 |
| Monthly income | less than RM 1,000 | 54 | 28.7 |
| | between RM 1,001 and RM 3,000 | 32 | 17.0 |
| | between RM 3,001 and RM 5,000 | 51 | 27.1 |
| | between RM 5,001 and RM 7,000 | 9 | 4.8 |
| | between RM 7,001 and RM 9,000 | 11 | 5.9 |
| | RM 9,001 and above | 31 | 16.5 |
| Tourism destination | Mulu National Park | 40 | 21.3 |
| | Kubah National Park | 36 | 19.1 |
| | Niah National Park | 38 | 20.2 |
| | Bako National Park | 40 | 21.3 |
| | Gunung Gading National Park | 34 | 18.1 |

Source: authors' own work.

Pritchard, Smith, 2000). A seven-point Likert scale was rated by the participating respondents, where *strong disagreement* and *strong agreement* are represented by 1 and 7 respectively. Subsequent progress involved the development of a questionnaire in digital form and distribution to domestic tourists online, based on the contact information obtained from the visitor registry at the study locations. Generally, the survey respondents consisted of domestic tourists who reside within Malaysia and have visited the designated national parks in Sarawak, including Bako, Niah, Kubah, Gunung Gading and Gunung Mulu National Parks, as indicated in Figure 1.

To ensure the accuracy of response, individuals who have visited these designated sites within one year were deemed eligible as respondents. Their demographic profiles are given in Table 1. The data collection took place from November 2020 to January 2021, over three months. By using G*Power software (Faul et al., 2007), along with criteria of medium effect size, it was determined that the minimum sample was 146, at a power of 0.95 and significance level of 0.05, as shown in Figure 2.

Following that, out of 200 questionnaires 192 were returned, implying a response rate of 96.0%. Thus, it eliminated the possible occurrence of response error as the present response rate exceeded 70% (Nulty, 2008). In line with that, the Statistical Package for Social Sciences (SPSS) 28.0 was employed to conduct

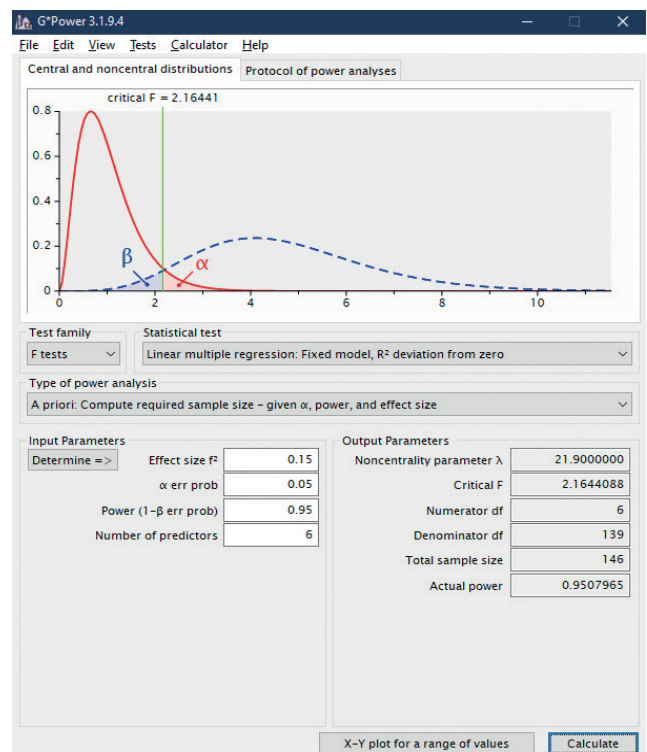


Figure 2. Results of G*Power analysis

Source: authors' own work

a series of preliminary analyses for the elimination of straight-line responses and the identification of missing values. Nevertheless, four out of the 192 returned

questionnaires were discarded, providing a remainder of 188 for further measurement and structural analysis. As indicated by the outcome of normality, all items were normally distributed ($Z_{\text{skewness}} < 3$ and $Z_{\text{kurtosis}} < 3$), in accordance with the postulation by the authors (Yap, Sim, 2011). Subsequently, to investigate the research model, partial least square structural equation modeling (PLS-SEM) estimation was conducted using WarpPLS 8.0.

4. RESULTS

According to Table 1, most tourists who visited the studied locations were aged between 21 and 30 years old. Indeed, natural destinations, specifically national parks, tend to be more adventuresome as compared to typical urban locations. Consequently, they are likely to welcome enormous numbers of younger individuals who are habitually intrepid and energetic. Nevertheless, the demographic profile of respondents has demonstrated a rather surprising discovery that the visitors were mostly female. This is explainable as these national parks offer an abundance of natural elements for relaxation (Thong, Ching, Chin, 2020), providing females with an opportunity to escape from the hassles and hectic environments resulting from daily work and household duties.

As demonstrated in Table 2, the convergent and discriminant validity as well as the reliability of the scales were evaluated using confirmatory factor analysis (CFA) which includes outer loadings, *t*-value, composite reliability (CR), Cronbach's alpha (Cronbach, 1951) and average variance extracted (AVE). To evaluate the individual reliability of each indicator, a minimum cut-off point of 0.5 must be achieved by the loading of each measurement item to ensure internal consistency (Gefen, Straub, Boudreau, 2000). Composite reliability (CR) measures the internal consistency of a measurement scale, the degree to which items are free from random errors by achieving minimum values of 0.7 (Chin, 1998; Riquelme, Rios, 2010). Discriminant validity is important in testing the indicators to prevent issues related to multicollinearity by comparing the square root of AVE among the constructs (Bagozzi, Yi, 1988; Fornell, Larcker, 1981).

Consecutively, as shown in Tables 2 and 3, each factor has obtained an AVE of more than 0.5, thus indicating no issues in the relevance of both convergent and discriminant validity. All variables have achieved values of CR exceeding 0.7 and loadings beyond 0.5. Furthermore, the evaluation of the predictive power of the model was based on the coefficient of determination (R^2), where destination competitiveness explained 46.0% of the construct ($R^2 = 0.46$), which exceeded the minimum indication of 0.19 (Cohen, 1988). Figure 3 demonstrates the findings resulting from the assessment of the structural model.

Table 2. Convergent validity of measurement model

| Variable | Items | Loadings | <i>t</i> -value | α | CR | AVE |
|------------------------------------|-------|----------|-----------------|----------|-------|-------|
| Destination resources | | | | | | |
| Natural resources (NR) | | | | 0.824 | 0.884 | 0.656 |
| | NR_1 | 0.819 | 12.516 | – | – | – |
| | NR_2 | 0.841 | 12.909 | – | – | – |
| | NR_3 | 0.854 | 13.142 | – | – | – |
| | NR_4 | 0.719 | 10.748 | – | – | – |
| Culture heritage attractions (CHA) | | | | 0.878 | 0.916 | 0.733 |
| | CHA_1 | 0.858 | 13.215 | – | – | – |
| | CHA_2 | 0.875 | 13.532 | – | – | – |
| | CHA_3 | 0.855 | 13.168 | – | – | – |
| | CHA_4 | 0.834 | 12.788 | – | – | – |
| Tourism infrastructure (TI) | | | | 0.795 | 0.855 | 0.501 |
| | TI_1 | 0.643 | 9.468 | – | – | – |
| | TI_2 | 0.648 | 9.550 | – | – | – |
| | TI_3 | 0.631 | 9.261 | – | – | – |
| | TI_4 | 0.804 | 11.404 | – | – | – |
| | TI_5 | 0.756 | 10.934 | – | – | – |
| | TI_6 | 0.729 | 12.936 | – | – | – |

| Variable | Items | Loadings | <i>t</i> -value | α | CR | AVE |
|----------------------------------|-------|----------|-----------------|----------|-------|-------|
| Destination resources | | | | | | |
| Range of activities (RA) | | | | 0.888 | 0.915 | 0.643 |
| | RA_1 | 0.843 | 12.941 | – | – | – |
| | RA_2 | 0.832 | 12.743 | – | – | – |
| | RA_3 | 0.810 | 12.354 | – | – | – |
| | RA_4 | 0.714 | 10.676 | – | – | – |
| | RA_5 | 0.840 | 12.881 | – | – | – |
| | RA_6 | 0.764 | 11.537 | – | – | – |
| Destination accessibility (DA) | | | | 0.805 | 0.873 | 0.633 |
| | DA_1 | 0.797 | 12.120 | – | – | – |
| | DA_2 | 0.706 | 10.536 | – | – | – |
| | DA_3 | 0.836 | 12.817 | – | – | – |
| | DA_4 | 0.837 | 12.832 | – | – | – |
| Quality of tourism services (QS) | | | | 0.884 | 0.920 | 0.743 |
| | QS_1 | 0.862 | 13.295 | – | – | – |
| | QS_2 | 0.891 | 13.816 | – | – | – |
| | QS_3 | 0.869 | 13.413 | – | – | – |
| | QS_4 | 0.825 | 12.615 | – | – | – |
| Destination competitiveness (DC) | | | | 0.845 | 0.896 | 0.684 |
| | DC_1 | 0.783 | 11.868 | – | – | – |
| | DC_2 | 0.852 | 13.114 | – | – | – |
| | DC_3 | 0.849 | 13.046 | – | – | – |
| | DC_4 | 0.822 | 12.556 | – | – | – |

Source: authors' own work.

Table 3. Discriminant validity of constructs

| | Natural resources | Cultural heritage attractions | Tourism infrastructure | Range of activities | Destination accessibility | Quality of tourism services | Destination competitiveness |
|-------------------------------|-------------------|-------------------------------|------------------------|---------------------|---------------------------|-----------------------------|-----------------------------|
| Natural resources | 0.810 | – | – | – | – | – | – |
| Cultural heritage attractions | 0.613 | 0.856 | – | – | – | – | – |
| Tourism infrastructure | 0.008 | –0.072 | 0.705 | – | – | – | – |
| Range of activities | 0.100 | –0.036 | 0.507 | 0.802 | – | – | – |
| Destination accessibility | 0.375 | 0.364 | 0.111 | 0.128 | 0.796 | – | – |
| Quality of tourism services | 0.618 | 0.631 | 0.047 | –0.007 | 0.389 | 0.862 | – |
| Destination competitiveness | 0.557 | 0.586 | 0.131 | 0.143 | 0.423 | 0.553 | 0.827 |

Source: authors' own work.

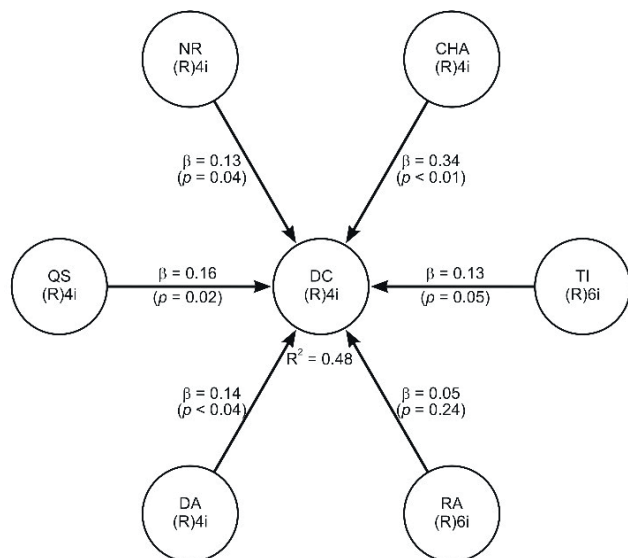


Figure 3. Results of path analysis using WarpPLS

Note: NR = natural resources, CHA = cultural heritage attractions, TI = tourism infrastructure, RA = range of activities, DA = destination accessibility, QS = quality of tourism services, DC = destination competitiveness
Source: authors' own work

Full collinearity or multicollinearity was also examined prior to assessment of the structural model (see Appendix 1). The values of the average block variance inflation factor (AVIF) and average full collinearity VIF (AFVIF) were lower than 3.3 (Kock, 2017), thus indicating the absence of full collinearity issues or common method bias in the current study. Following that, the effect size (f^2) of each indicator was determined (see Appendix 2) to evaluate the extent of explanation of the dependent variable. The results indicated each resource indicator possessed adequate amount of effect on destination competitiveness. Subsequently, the

structural model was assessed through blindfolding to evaluate the predictive relevance Q^2 (see Appendix 3). The value of Q^2 obtained in this study was 0.486, which exceeded zero value (Hair et al., 2017), thus indicating that the model possessed high predictive relevance based on a rule of thumb.

The analyses were followed by an evaluation of the proposed hypotheses where path β coefficients (β) were examined (see Table 4). It is obligatory for the value of probability, the p -value, to be lower than the significance of 0.01 or 0.05, as a fundamental rule for one-tailed hypothesis testing. Accordingly, both endowed resources in the present study, natural resources ($\beta = 0.133$; $p < 0.05$) and cultural heritage attractions ($\beta = 0.341$; $p < 0.01$), had significant positive impacts on destination competitiveness, thus supporting hypotheses 1 and 2. Successively, both supporting resources, namely destination accessibility ($\beta = 0.138$; $p < 0.05$) and quality of tourism services ($\beta = 0.162$; $p < 0.05$), were found to enhance the competitiveness in a tourism destination, hence hypotheses 5 and 6 were supported. Interestingly, only one of the created, or human resources was discovered to be significantly and positively related to destination competitiveness, specifically tourism infrastructure ($\beta = 0.127$; $p < 0.05$). Nevertheless, as the statistical findings revealed, the range of activities, which was another created resource, had no positive significant relationship with destination competitiveness ($\beta = 0.054$; $p = 0.242$).

5. DISCUSSION

The present study provides further insights into factors determining destination competitiveness as perceived by tourists, thus contributing to the expansion of

Table 4. Results of path coefficients and hypothesis testing

| Hypothesis | Relationship | Standard beta | t-value | p-value | Decision |
|----------------|---|---------------|---------|----------|---------------|
| H ₁ | natural resources → destination competitiveness | 0.133 | 1.759 | 0.04* | supported |
| H ₂ | cultural heritage attractions → destination competitiveness | 0.341 | 4.704 | < 0.01** | supported |
| H ₃ | tourism infrastructure → destination competitiveness | 0.127 | 1.680 | 0.047* | supported |
| H ₄ | range of activities → destination competitiveness | 0.054 | 0.701 | 0.242 | not supported |
| H ₅ | destination accessibility → destination competitiveness | 0.138 | 1.821 | 0.035* | supported |
| H ₆ | quality of tourism services → destination competitiveness | 0.162 | 2.148 | 0.017* | supported |

Note: * $p < 0.05$, ** $p < 0.01$.
Source: authors' own work.

the existing literature. Based on competitiveness theory (Crouch, Ritchie, 1999; Dwyer, Kim, 2003), tourists' perceived determinants of destination competitiveness were demonstrated. The audience consists of domestic tourists and physically visited selected natural tourism destinations in Sarawak, Malaysia. In fact, natural tourism destinations that offer an abundance of resources are more attractive and preferred among tourists as compared to locations that lack them. Based on outcomes resulting from the current study, theoretical and practical implications are advocated below.

5.1. THEORETICAL IMPLICATIONS

The discoveries of this study contribute to the body of knowledge associated with destination resources and the competitiveness of a destination, which has remained underexplored in existing literature (Reisinger, Michael, Hayes, 2018). Primarily, by integrating competitiveness theory, this work attempts to investigate the relationship between the constructs of resources and competitiveness. Subsequently, destination resources and competitiveness were used in the development of a theoretical model through the assimilation of this complementary theory. In this study, the competitiveness theory was further supported by discoveries which indicated that destination resources are a key contributing factor to effective management of destination resources and competitiveness. Accordingly, these findings contribute insightful information to tourism industry players for competitiveness enhancement and outcome attainment while maintaining their competitiveness as desired in the current rapidly changing environment.

The findings resulting from statistical analyses discovered the significant positive impact of endowed resources on destination competitiveness (Potashova, Girijchuk, 2019; Zakariya, Ibrahim, Wahab, 2019). Surprisingly, the current study provides opposition to existing research (Chi et al., 2020; Law, Lo, 2016), indicating that the presence of tourism infrastructure, such as telecommunication systems, electric supply, accommodation and other relevant facilities, is not a significant driver towards competitiveness in a tourism destination. It does however provide further insights in that tourists visiting natural tourism destinations, specifically lovers of nature, are insensitive and unaware of the available infrastructure as these individuals tend to place high emphasis on the presentation of genuine natural resources in the destinations (Thong, Mohamad, Lo, 2020).

Apart from that, the remaining aspect of the created resources, the range of activities, is found to enhance tourism destination competitiveness, as perceived by tourists. Insights provided further confirm the

significant role of events and activities in determining a tourism destination's competitiveness (Ayikoru, 2015; Chin, 2022). Moreover, it is also found that supporting resources in a tourism destination (i.e. destination accessibility and quality of tourism services) were significant contributors to enhanced competitiveness (Goffi, 2013; Setokoe, Ramukumba, Ferreira, 2019). Ultimately, by adapting studies from the past (Gold, Malhotra, Segars, 2001; Prieto, Revilla, 2006), the scores for reliability and validity were obtained through cross-validation measures and provide a contribution to the existing literature.

5.2. PRACTICAL IMPLICATIONS

At the outset, the practitioners need to be informed of the importance of destination resources and their relationship with desired outcomes. The tourism industry has become more competitive, hence the right strategy through a proper management plan has become extremely important for destination managers (Armenski, Dwyer, Pavluković, 2018; Cosvi et al., 2019). Secondly, resource dimensions, namely natural resources, cultural heritage attractions, range of activities, destination accessibility and quality of tourism services should be given high emphasis by tourism practitioners. Based on current statistical findings resulting from path modeling, two of the constructs which obtained the highest path coefficient value, namely cultural heritage attractions and quality of tourism services, should be highly emphasized by industry practitioners through continuous maintenance. In conjunction with that, it is highly recommended that continuous training should be provided to the existing workforce in these destinations in order to maintain and further improve the quality of tourism services. At this moment, the Ministry of Tourism, Creative Industry and Performing Arts (MTCP) in Sarawak, in particular in its endeavour towards revolutionising the economy and industries, might benefit from these outcomes (Lau, Kong, 2019).

Along with effective strategy implementation in the ecotourism development process, these findings can also be helpful to those involved in the tourism industry, such as business owners, policy makers and planners. This is especially true during busy times like the pandemic caused by the outbreak of the coronavirus disease (COVID-19), which is one unpredictable circumstance. Due to the tremendous loss of revenue this epidemic has caused across many industries, especially in the tourism sector where a Movement Control Order (MCO) was implemented as a lockdown measure, the restrictions on travel between areas drastically decreased visits, decreased visitor spending, and ultimately resulted in a loss of revenue for tourist destinations. These results

help industry players to efficiently plan and manage business recovery strategies to reduce the loss of income during unstable conditions, which coincides with the Malaysian government's decision on the transition from the epidemic (Bedi, 2022).

6. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

In summary, empirical evidence has been provided in the present study, especially on the impact of destination resource constructs on the competitiveness of a tourism destination based on domestic perspectives. In addition, the present study contributes to theoretical and practical perspectives in natural tourism destinations for both practitioners and scholars. Additionally, the significant influence of the destination resources (natural resources, cultural heritage attractions, tourism infrastructure, destination accessibility and quality of tourism services) on the development of destination competitiveness was discovered. The present study has provided empirical evidence that presents information for both industry players, including business operators, policy makers, and tourism planners regarding the resource constructs to be emphasized towards the success of tourism destination.

Despite the empirical findings as revealed in the preceding discussion, the present study is not without its limitations. The primary one was collecting data from a single source, which raises the possibility of technique bias issues. Therefore, it is advised to gather data from many sources to increase the validity of the results, even though the likelihood of technique bias could be reduced through procedural corrections. Additionally, the research locations themselves can add to the weaknesses. Different study locations may have different sociocultural, environmental and economic positions. Additionally, this study was conducted at only five selected ecotourism destinations in Sarawak, Malaysia. As a result, the findings might not be uniformly applicable to other ecotourism hotspots around Malaysia and other nations. Respondents from countries with varied cultural circumstances may have different perceptions towards the competitiveness development of a destination.

The competitiveness of a destination grows in significance in the context of ecotourism and the availability of endowed, created and supporting resources is crucial to the fundamental components of an ecotourism destination. Therefore, additional research into resource construct and destination competitiveness is recommended. Only perceptions from domestic tourists are included in the examination of resource constructs and destination competition. For

more unbiased outcomes, it is advised to incorporate a broader concept and opinions, particularly from diverse respondents such as communities and tourist players. Future researchers should therefore study the effects of destination resource constructs on destination competitiveness based on many viewpoints.

At present, this study has not involved moderation, however in testing this conceptual framework, there are several possible moderating factors. Future studies might find it useful to examine these associations using community support as a moderator as it may alter tourists' initial perceptions when they feel welcomed in a destination. Future studies might also test the current model in other tourist hotspots, particularly in ecotourism-related environments. Only five ecotourism destinations in Sarawak, Malaysia, were highlighted, thus there is a chance for different outcomes or consistency with this study, hence scholars may further analyse the current model in other ecotourism settings with varied tourist ethnicities and cultures.

Disclosure statement

No potential competing interest was reported by the author(s).

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APPENDIX 1. COLLINEARITY TEST

To evaluate the issue of multicollinearity among the constructs, the values of the variation inflation factor (VIF) were also gathered. The findings showed that

none of the VIF values exceeded 3.3; hence, there is no evidence of multicollinearity among the constructs (see Table 1).

Table 1. Collinearity test based on VIF scores

| | Natural resources | Cultural heritage attractions | Tourism infrastructure | Range of activities | Destination accessibility | Quality of tourism services | Destination competitiveness |
|-------------------------------|-------------------|-------------------------------|------------------------|---------------------|---------------------------|-----------------------------|-----------------------------|
| Natural resources | 2.025 | – | – | – | – | – | – |
| Cultural heritage attractions | 2.167 | – | – | – | – | – | – |
| Tourism infrastructure | 1.400 | – | – | – | – | – | – |
| Range of activities | 1.408 | – | – | – | – | – | – |
| Destination accessibility | 1.305 | – | – | – | – | – | – |
| Quality of tourism services | 2.086 | – | – | – | – | – | – |
| Destination competitiveness | 1.895 | – | – | – | – | – | – |

Source: authors' own work.

APPENDIX 2. EFFECT SIZE (F^2)

To determine how well each independent (predictor or exogenous) variable explains the dependent variable (endogenous), the effect size (f^2) was calculated and reported (Chin, 1998) (see Table 2). It is crucial to

provide the values of the effect size as it is a piece of relevant additional information that will improve the accuracy of the PLS path model estimations (Hair et al., 2017).

Table 2. Effect sizes of the constructs

| | Natural resources | Cultural heritage attractions | Tourism infrastructure | Range of activities | Destination accessibility | Quality of tourism services | Destination competitiveness |
|-------------------------------|-------------------|-------------------------------|------------------------|---------------------|---------------------------|-----------------------------|-----------------------------|
| Natural resources | – | – | – | – | – | – | 0.077 (small) |
| Cultural heritage attractions | – | – | – | – | – | – | 0.211 (medium) |
| Tourism infrastructure | – | – | – | – | – | – | 0.026 (small) |
| Range of activities | – | – | – | – | – | – | 0.008 (small) |
| Destination accessibility | – | – | – | – | – | – | 0.063 (small) |
| Quality of tourism services | – | – | – | – | – | – | 0.094 (small) |

Source: authors' own work.

APPENDIX 3. PREDICTIVE RELEVANCE (Q^2)

To obtain predictive relevance (Q^2) value, a blindfolding process was used. According to Hair et al. (2016), when describing the predictive relevance, the Q^2 value should be stated alongside the R^2 . The value of Q^2 ought to be

greater than zero (see Table 3) In order to determine the Q^2 of the research model and explain the predictive usefulness of the research model, a blinding process was used in the current investigation.

Table 3. Predictive relevance of the model

| Natural resources | Cultural heritage attractions | Tourism infrastructure | Range of activities | Destination accessibility | Quality of tourism services | Destination competitiveness |
|-------------------|-------------------------------|------------------------|---------------------|---------------------------|-----------------------------|-----------------------------|
| – | – | – | – | – | – | 0.486 |

Source: authors' own work.

APPENDIX 4. SURVEY QUESTIONNAIRE

Table 4. List of measurement items

| Variables | Items No. | Sources |
|---|-----------|---|
| Natural resources (NR) | | |
| The destination has a beautiful natural landscape | NR1 | Cracolici, Nijkamp, 2008; Dwyer, Kim, 2003 |
| The availability of flora and fauna to attract tourists | NR2 | |
| The destination has a peaceful and restful atmosphere | NR3 | |
| The destination environment is well-preserved | NR4 | |
| Cultural heritage attraction (CHA) | | |
| There has variety of unique cultural attractions in the destination | CHA1 | Chen et al., 2013; Dwyer, Kim, 2003; Getz, 2008; Gutierrez et al., 2005; Picard, Robinson, 2006 |
| There are unique ethnic groups and cultures in this area | CHA2 | |
| Abundance of tourism resources (natural scenery, historic/cultural/ heritage site, local culture, etc.) | CHA3 | |
| The destination offers interesting historical attractions | CHA4 | |

| Variables | Items No. | Sources |
|---|-----------|--|
| Tourism infrastructure (TI) | | |
| The infrastructure within the destination is adequate to meet visitor needs | TI1 | Dwyer, Kim, 2003; Hankinson, 2004; Mo et al., 1993; Murphy et al., 2000; Smith, 1994 |
| The signals and sign-postings within the destination are operating well | TI2 | |
| The functionality of the facilities in the destination is adequate | TI3 | |
| There are health/medical facilities to serve tourists in this area | TI4 | |
| There is availability of telecommunication system for tourists | TI5 | |
| There is consistency of electricity supply in the destination | TI6 | |
| Range of activities (RA) | | |
| The destination offers numerous outdoor activities (e.g., water activities, sport activities, natural-based activities) | RA1 | Alcañiz, García, Blas, 2009; Go, Govers, 2000; Heath, 2003; Kozak, Rimmington, 1999 |
| The various events and activities were well-planned | RA2 | |
| The activities or events' process are attractive and enjoyable | RA3 | |
| It is easy to get the information and make arrangements for the activities | RA4 | |
| The destination has provided enough maps and signs at different points for directions | RA5 | |
| A good variety of activities are offered for tourists | RA6 | |
| Destination accessibility (DA) | | |
| It was easy for me to get to the destination | DA1 | Canny, Hidayat, 2012; Chi, Qu, 2008; Yusof, Rahman, 2011 |
| The transportation options to destination are adequate | DA2 | |
| Problem-free travel and vacation arrangement with the destination | DA3 | |
| The ease to get abundant clear information about the destination before the travel | DA4 | |
| Quality of tourism services (QS) | | |
| High quality and variety of activities offered for tourists at the destination (special events/festivals, entertainment, nightlife, etc.) | QS1 | Chi, Qu, 2008; Enright, Newton, 2004; Gomezelj, Mihalic, 2008 |
| High quality tourism infrastructure (accommodation, restaurant, local transport, health/medical facilities, etc.) | QS2 | |
| High quality of service/amenities at the destination | QS3 | |
| Cleanliness and hygiene are held in respect in the destination | QS4 | |
| Destination competitiveness (DC) | | |
| Tourism helps to increase the development of a strong destination image | DC1 | Crouch, Ritchie, 1999; Dwyer, Kim, 2003; Enright, Newton, 2005; Frauman, 1999; Hassan, 2000; Meng, 2006; Mihalic, 2000 |
| The destination's commitment to providing a satisfactory vacation experience for tourists | DC2 | |
| The destination's continuous commitment to the ongoing improvement and development of a high-quality destination | DC3 | |
| The destination commitment to providing a safe and secure environment | DC4 | |

Source: authors' own work.