

Moving towards Post-COVID-19: A Study of Ecotourism Destinations Competitiveness in Sarawak

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Abstract

In today's ever-evolving digital world, ecotourism is becoming increasingly important in Malaysia's tourism industry. Nature lovers are seeking authentic natural travel experiences that allow them to connect with nature, and as a result of the COVID-19 safety measures, there has been a renewed emphasis on ecotourism destinations that offer open spaces, fewer crowds, and minimal contact. The purpose of this study was to examine the correlation between inherited, supporting resources, and competitiveness of destination to aid in the advancement of ecotourism in Malaysia. The study focused on five national parks in Sarawak, Malaysia, namely Kubah, Niah, Bako, Gunung Mulu, and Gunung Gading, which were chosen due to their unique and diverse natural resources. Using purposive sampling, the study included 177 domestic tourists who voluntarily participated in the survey, which took place from December 2021 to February 2022, for a period of three months. The survey focused on natural resources, cultural heritage attractions, destination accessibility, and quality of tourism services. The study employed WarpPLS 8.0 for path modelling and bootstrapping to estimate standard error and *p*-values. The study's findings revealed that there is a significant relationship between inherited and supporting resources and destination competitiveness. The study findings suggest that successful management of resources can lead to enhanced competitiveness for tourism industry players by showing that cultural heritage attractions and accessibility are crucial factors in the development of destination competitiveness, among other destination resources. Also, the study adds to the existing research on identifying the key determinants of ecotourism destination competitiveness. The research findings offer significant insights for policymakers, local planners, and business operators in developing effective management strategies to ensure the sustainable growth of ecotourism destinations, which is particularly relevant in the post-COVID-19 period where the need for revitalization of the tourism industry is critical.

Keywords: Destination Resources, Ecotourism, Malaysia, Post-COVID-19, Structural Equation Modelling

Introduction

In recent times, there has been an increase in the popularity of ecotourism as travellers seek to connect with nature and have authentic natural experiences. This form of responsible tourism focuses on visiting natural areas, such as national parks, to appreciate the unique flora, fauna, and cultural treasures found there (Fromm, 2017). Many travellers prefer ecotourism because they prioritize the natural surroundings as the most significant aspect when deciding on their holiday preferences (Mondino & Beery, 2018). Prior to the outbreak of COVID-19, there was a discernible rise in the number of visitors to completely protected areas, and this pattern is projected to persist as travellers aim to steer clear of unsafe and congested locales. The

promotion of a favourable image and the sustainable growth of a tourism destination are dependent on effective management and development (Dean, Surhartanto, & Kusdibyo, 2019).

The Ministry of Tourism, Creative Industry, and Performing Arts Sarawak (MTCP) in 2019 showed that there was a 5.22% increase in visitor arrivals in Sarawak, Malaysia before the outbreak of COVID-19. However, ecotourism poses significant management challenges, particularly in totally protected areas where inadequate planning may result in overcrowding, reduced visitor experience quality, and negative impacts on the environment (Ólafsdóttir et al., 2020). Accordingly, the Malaysian government's National Tourism Policy 2020-2030 stresses the significance of implementing sustainable and responsible tourism practices as a crucial strategy to revive the national tourism industry after the pandemic.

The study focused on five national parks in Sarawak, namely Niah National Park, Bako National Park, Kubah National Park, Gunung Gading National Park, and Gunung Mulu National Park. These parks are popular tourist destinations, especially for nature lovers, and their natural and built resources are the main attractions that contribute to their competitiveness (Lo, Mohamad, Chin, & Ramayah, 2017). To improve visitor attraction, unique experiences related to natural and cultural elements should be provided (Zehrer, Smeral, & Hallmann, 2017). Additionally, tourism transportation that is convenient, affordable, and accessible is important for the growth of tourism destinations (Rucci, 2018). Quality tourism services are also critical for determining tourist satisfaction, tourism destination competitiveness, and tourism planning, according to a previous research (Muresan et al., 2019).

Previous research has emphasized the significance of identifying tourists' preferences and experiences to promote effective tourism development (Carneiro, Lima, & Silva, 2015). In addition, comprehending tourists' behaviour is essential to increase profitability in the tourism industry, considering the rapidly changing demands among tourists (Pesonen, 2012). Destination competitiveness has traditionally been assessed based on the components of hard and soft services, which include natural resources, cultural heritage attractions, accessibility, and quality of tourism services (Chin & Lo, 2017). The current study aims to bridge the gap by investigating domestic tourists' perspectives on the impact of these constructs (core and supporting resources) on tourism destination competitiveness, primarily to attain the following study objectives:

1. To investigate the relationship between natural resources and destination competitiveness in ecotourism destinations in Sarawak.
2. To identify the relationship between cultural heritage attractions and destination competitiveness in ecotourism destinations in Sarawak.
3. To find out the relationship between accessibility and destination competitiveness in ecotourism destinations in Sarawak.
4. To identify the relationship between quality of tourism services and destination competitiveness in ecotourism destinations in Sarawak.

Literature Review

Competitiveness Theory

Models of destination competitiveness development rely on the concepts of comparative resources and competitive advantage (Mihalic, 2000; Ritchie & Crouch, 2003). Competitive advantage refers to the more advanced factors, including tourism infrastructure and amenities, while comparative resources refer to the natural environment and services that act as the primary attractors. These ideas were previously used to evaluate competitiveness in a tourism

destination (Navickas & Malakauskaite, 2009). Likewise, earlier research has employed the theory of competitiveness to investigate the sustainability of destination competitiveness, offering valuable knowledge regarding significant competitiveness progressions derived from comparative resource and competitive advantage (Oye, Okafor, & Kinjir, 2013; Yozcu, 2017).

Destination Competitiveness

Over time, there have been several definitions of competitiveness in a destination (Enright & Newton, 2004). In general, the ability of a destination to retain its position in the marketplace is referred to as destination competitiveness, often in competition with other destinations, by creating long-term value and integrating its current tourism products (Hassan, 2000). To evaluate the competitiveness of tourism destinations, a dependable methodology has been proposed, which emphasizes the primary attractors, and qualities that are business-related (Lee & King, 2008). Indeed, the significance of fundamental tourist resources and attractions in fostering competitiveness for a tourism destination has been highlighted in numerous preceding studies (Muresan et al., 2019; Armenski, Dwyer, & Pavluković, 2018). Furthermore, to safeguard a tourism destination's sustainability, it is suggested that competitiveness should be stressed on and consistently developed (Law & Lo, 2016). In the present study, the model proposed is based on Dwyer and Kim's destination competitiveness model, as shown in Figure 1.

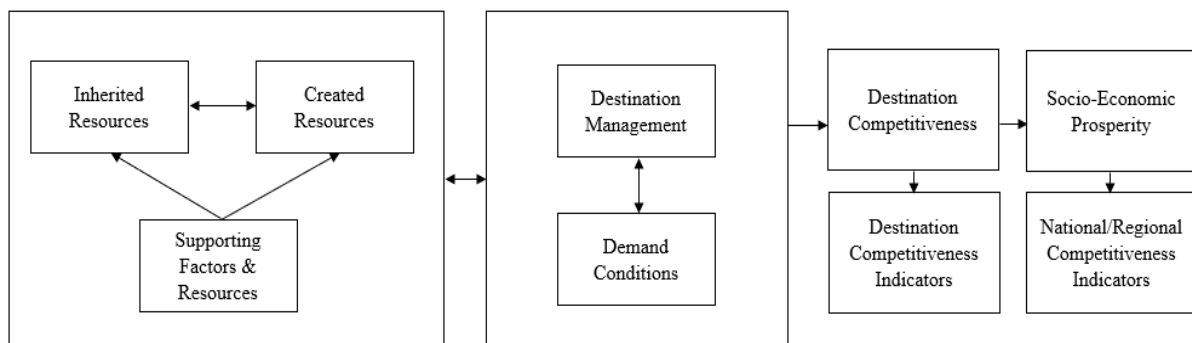


Figure 1: Theoretical Framework
Source: Dwyer & Kim (2003)

Inherited and Supporting Resources

Destination competitiveness, which is often defined as a complex and multifaceted concept that encompasses several factors such as abundance of services offered, mode of transport available, and endowed attractions (Zainuddin, Radzi, & Zahari, 2016). Previous research has identified destination resources as a crucial component for sustainable tourism development, playing a vital role in determining destination competitiveness. Destination resources refer to the interconnected elements of a destination, including core, supporting, and inherited resources (Thong, Lo, Ramayah, & Mohamad, 2022; Armenski, Gomezelj, Djurdjev, Ćurčić, & Dragin., 2012). Studies in the past have emphasized the prominence of destination resources in attracting and retaining tourists by capturing their interest and shaping intentions that are favourable (Hernandez, Suarez-Vega, & Jimenez, 2016).

Natural Resources

One of the primary components of an environment is natural resources, which consist of accessible floral and faunal varieties (Crouch & Ritchie, 1999). A recent study has pointed out that the increasing number of visitors to a destination has posed a challenge for tourism, as the

natural resources are prone to damage from human activities (Jaini, Robot, Annuar, & Jamaluddin, 2019; Sukserm, Thiengkamol, & Thiengkamol, 2012). Tourists are attracted to a wide range of products, including services, facilities, and environmental and socio-cultural elements in a destination (Dwyer & Kim, 2003; Buhalis, 2000). Natural resources play a crucial role in attracting tourists and serving as a competitive advantage for tourism destinations (Law & Lo, 2016; Thong, Mohamad, & Lo, 2020). In order to maintain the competitive edge of a tourism destination, it is crucial for stakeholders in the tourism industry to preserve natural resources and prevent any adverse effects on the environment (Lo et al., 2017). Therefore, it is implied that:

H1: Natural resources are significantly related to the competitiveness in a destination.

Cultural Heritage Attractions

Culture pertains to the diverse characteristics of human behaviour, ideas, and emotions in society (Koentjaraningrat, 1992). In tourism, branding recognizes the distinctiveness of a site as a crucial aspect from a cultural perspective (Ryan, 2005). Additionally, cultural factors, such as originality, variety, authenticity, and distinctiveness, are incorporated into the branding process to reflect the clarity or preservation of a tourism product (Damanik & Weber, 2006). Research has shown that cultural features have a positive effect on tourists' satisfaction levels (Putri, 2017). Moreover, there has been a shift in tourists' travel preferences towards cultural experiences, particularly those that are unique (Park, 2014). A tourism destination's cultural heritage attractions, with their diverse legacy, are regarded as a key component of its competitiveness (Dwyer, Melor, Livaic, Edwards, & Kim, 2004; Gupta & Singh, 2019). As a result, the hypothesis is formulated as follows:

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

Destination Accessibility

The term accessibility pertains to the ease and convenience of transportation options, availability of parking facilities, access to information, and smooth connectivity to public transportation terminals, which tourists experience during their visit to a destination (Chi & Qu, 2008). Accessible destinations make it easier for tourists to reach their desired location throughout their trip (Hall, 2019). Improving accessibility is crucial for enhancing the competitiveness of tourism destinations as it can lead to better travel experiences, promote sustainable tourism, and attract more visitors (Thong et al., 2022; Natalia, Clara, Simon, Noelia, & Barbara, 2019). Prior research has indicated that providing convenient access to destination information and location is highly valued by tourists (McKercher et al., 2003). Hence, it has been recommended that enhancing accessibility could serve as a strategy to boost the appeal of tourist destinations (Dominguez, Darcy, & Gonzalez, 2015). As a result, the development of hypothesis is as follows:

H3: Destination accessibility is positively related to competitiveness in a destination.

Quality of Tourism Services

The quality of services provided is a crucial aspect of the tourism industry, as it directly impacts customer satisfaction (Go & Govers, 2000). In addition, research has shown that the quality of services offered by a tourism provider has an impact on their ability to attract new visitors (Backman & Veldkamp, 1995). The significance of services that are offered in respectable

quality in establishing highly competitive tourism destinations has also been highlighted in previous studies (Tozser, 2010; Vengesayi, Mavondo, & Reisinger, 2013). Furthermore, enrichment of the service efficiencies not only enhances the satisfaction levels among tourists and their intention to revisit, but also helps to maintain the sustainability of the tourism destination (Muresan et al., 2019; Cimbaljevic, Stankov, & Pavlukovic, 2018; Zainuddin et al., 2016; Mohammadi, Rast, & Khalifah, 2010). Accordingly, the ensuing hypothesis is formulated:

H4: Quality of tourism services is positively related to competitiveness in a destination.

Based on the literature review and hypotheses formulated above, the conceptual framework of this study is represented in Figure 2.

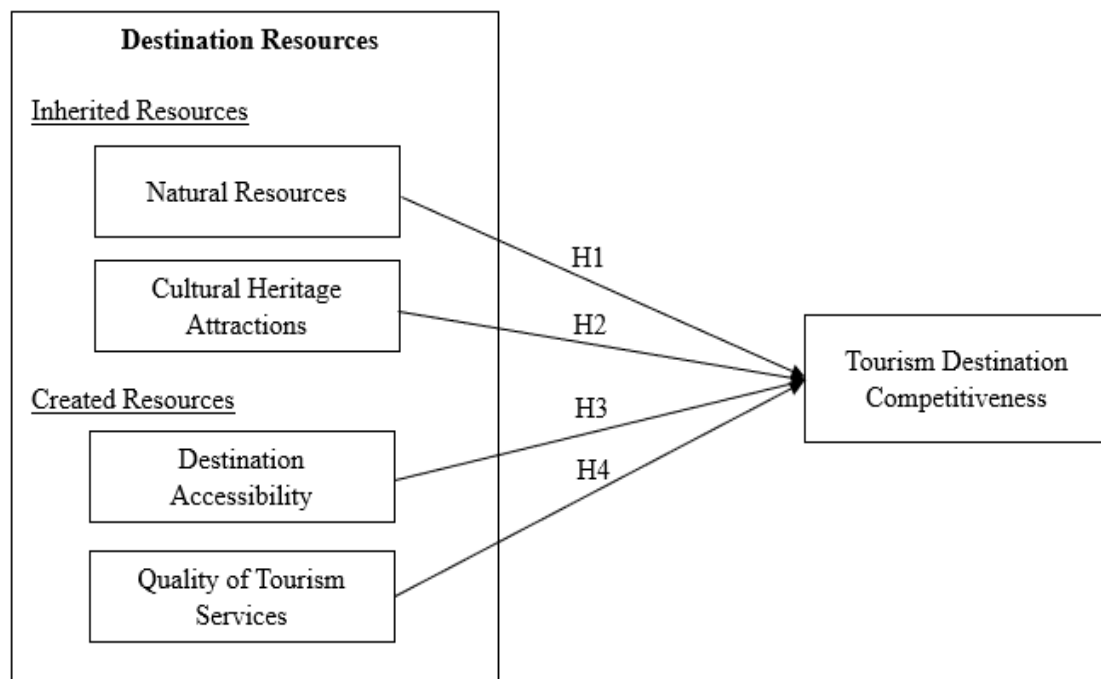


Figure 2: Conceptual Framework
Source: Author (2023)

Methodology

The current research includes domestic tourists who visited the top 5 national parks in Sarawak, Malaysia, as identified on TripAdvisor in 2019. These include Niah National Park, Bako National Park, Kubah National Park, Gunung Gading National Park, and Gunung Mulu National Park. The National Tourism Policy 2020-2030 highlights the importance of the tourism industry and its development in Malaysia, specifically in nature-based tourism (NBT) sites. Data was collected from several NBT sites in East Malaysia due to government initiatives to uphold ecotourism, culture, and arts (Louis, 2019). Data collection was done between December 2021 and February 2022, for three months duration. Respondents aged 16 and above were selected using purposive sampling (Sekaran & Bougie, 2013), which relies on personal judgment rather than population size. Figure 3 illustrates the locations of the research sites on the map of Sarawak.

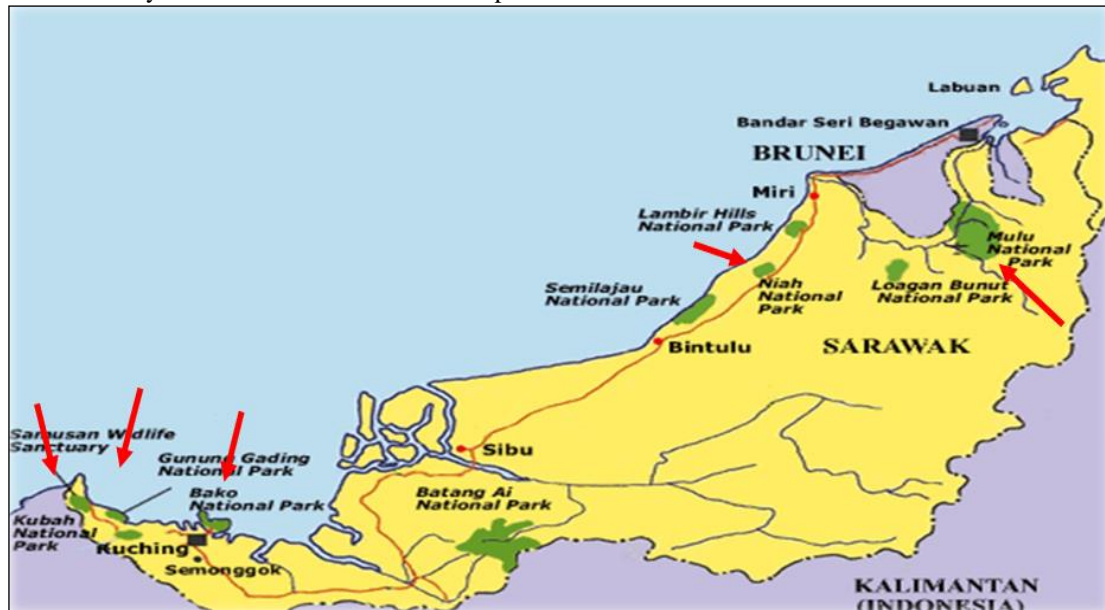


Figure 3: Study Sites on Map
 Source: Authors (2023)

In this study, a quantitative data collection technique was utilized, primarily through the distribution of surveys to participants. The survey utilized in the research was adapted from prior investigations (Hallmann, Muller, & Feiler, 2014; Canny & Hidayat, 2012; Gomezelj & Mihalic, 2008; Bahar & Kozak, 2007; Enright & Newton, 2004; Dwyer & Kim, 2003; Crouch & Ritchie, 1999) and slightly modified to fit the specific circumstances of Malaysia, containing a total of 26 measurement items in two separate sections, as shown in Appendix 1. The first section contains questions about five variables related to tourists' perceptions of destination resources and competitiveness. The second section includes six items aimed at gathering demographic information from the participants. The demographic profiles of the respondents are presented in Table 1.

Table 1: Demographic Profiles of Respondents (N=177)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Type	Domestic	177	100.0
Age	16-20	8	4.5
	21-30	82	46.3
	31-40	45	25.4
	41-50	23	13.0
	51-60	15	8.5
	60+	4	2.3
Gender	Male	69	39.0
	Female	108	61.0
Education Level	High School or Below	35	19.8
	Diploma	13	7.3
	Degree or Professional Qualifications	123	69.5
	Postgraduate	6	3.4

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Monthly Income	Less than RM 1,000	51	28.8		
	Between RM 1,001 and RM 3,000	31	17.5		
	Between RM 3,001 and RM 5,000	49	27.7		
	Between RM 5,001 and RM 7,000	8	4.5		
	Between RM 7,001 and RM 9,000	9	5.1		
	RM 9,001 and above	29	16.4		
Tourism Destination	Mulu National Park	38	21.5		
	Kubah National Park	33	18.6		
	Niah National Park	30	16.9		
	Bako National Park	37	20.9		
	Gunung Gading National Park	39	22.0		

Source: Authors

Based on Dr. Rensis Likert, the study employed a 7-point Likert scale, where 1 signifies "strongly disagree" and 7 signifies "strongly agree". The study respondents included tourists who had visited the said locations. Following the computation indicated by G*Power software, Figure 4 depicts a minimum sample size of 131 was required, which was determined through priori power analysis, considering an effect size of 0.15, 0.80 in terms of statistical power, and a 5% level of significance, as illustrated in Figure 5.

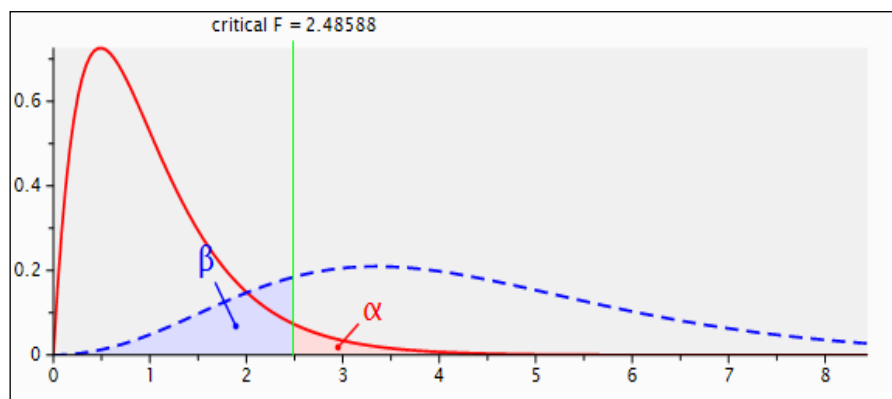


Figure 4: Graph of G*Power Analysis
 Source: Authors

To participate in this study, respondents who had visited the abovementioned study sites were obliged to rate their agreement level with statements in the questionnaire using a 7-point Likert scale. Prior to their participation, the researchers obtained their consent. Subsequently, 183 out of 200 questionnaires were fulfilled, yielding a response rate of 91.5%, which is considered sufficient to avoid response error (Nulty, 2008). The data was analysed using preliminary analyses, which resulted in the elimination of 6 questionnaires due to missing information. The remaining 177 sets of data were evaluated using WarpPLS 8.0 (Kock, 2022) to assess the measurement and structural models, including the evaluation of reliability, convergent and discriminant validity, and the hypothesized relationships between the constructs were assessed using bootstrapping.

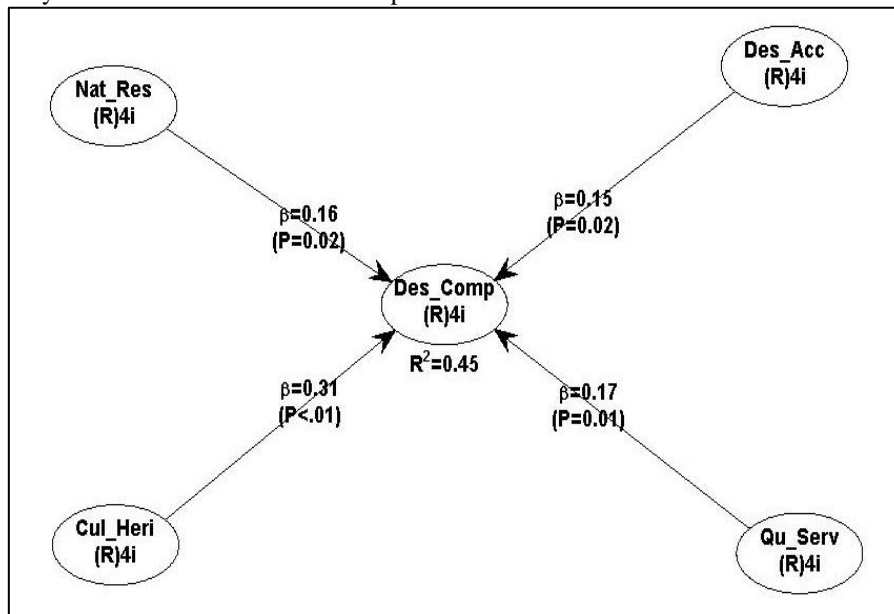


Figure 5: Research Model with Path Coefficients and P-Values

Source: Authors

Findings

The research model presented in this study underwent a two-stage analysis using WarpPLS 8.0. In the first stage, the constructs' reliability and validity were examined, followed by an evaluation of the measurement model in the second stage. Finally, the proposed relationships between constructs were tested through an assessment of the structural model, following the method recommended by Hair, Hult, and Ringle (2017).

Assessment of the Measurement Model

To ensure that the measures were reliable and valid, confirmatory factor analysis (CFA) was employed in this study. Table 2 includes the retained loadings that have thresholds of 0.5 or greater to ensure consistency within the construct (Bagozzi, Yi, & Philipps, 1991). The minimum cut-off points of 0.7 for composite reliability (CR) values was used to establish construct validity (Chin, 2010), and the extracted mean variance (AVE) values had to meet a threshold of 0.50 (Fornell & Larcker, 1981). The study's results showed that both CR and AVE values met the minimum standards. To test the instrument's internal consistency and reliability, Cronbach's alpha was used, with a value of 0.60 indicating poor consistency, 0.61-0.79 indicating acceptable consistency, and 0.80 or higher indicating good consistency (Nunally & Bernstein, 1994). In sum, the following table has indicated that all the studied constructs have achieved a decent level of consistency.

Table 2: Summary of Construct Reliability and Validity

Construct	No of Items	Items Deleted	Items	Loadings	CR	Cronbach's Alpha	AVE
Natural Resources	4	2	NH_1	0.819	0.884	0.824	0.656
			NH_2	0.841			
			NH_3	0.854			
			NH_4	0.719			
Cultural Heritage Attractions	4	1	CHA_1	0.858	0.916	0.878	0.733
			CHA_2	0.875			
			CHA_3	0.855			
			CHA_4	0.834			
Destination Accessibility	4	3	DA_1	0.797	0.873	0.805	0.633
			DA_2	0.706			
			DA_3	0.836			
			DA_4	0.837			
Quality of Tourism Services	4	2	QS_1	0.862	0.920	0.884	0.743
			QS_2	0.891			
			QS_3	0.869			
			QS_4	0.825			
Destination Competitiveness	4	0	DC_1	0.783	0.896	0.845	0.684
			DC_2	0.852			
			DC_3	0.849			
			DC_4	0.822			

Source: Authors

The discriminant validity of the measures is presented in Table 3. To evaluate the correlation between constructs in the research model, the square root of the AVE values was used. The measurement model was deemed appropriate since the correlation values were lower than each other, as per Chin's recommendations (Fornell & Larcker, 1981; Chin, 2010). Furthermore, the competitiveness of the destination was measured using the determination coefficient (R^2), which was found to be 0.45, explaining 45% of the model (Cohen, 1998).

Table 3: Discriminant Validity of Constructs

	Natural Resources	Cultural Heritage Attractions	Destination Accessibility	Quality of Tourism Services	Destination Competitiveness
Natural Resources	0.810				
Cultural Heritage Attractions	0.613	0.856			
Destination Accessibility	0.375	0.364	0.796		
Quality of Tourism Services	0.618	0.631	0.389	0.862	
Destination Competitiveness	0.557	0.586	0.423	0.553	0.827

Source: Authors

Assessment of the Structural Model

Table 4 presents the outcomes obtained from the hypotheses testing. In general, one-tailed hypothesis testing requires p-value to be lower than 0.01 or 0.05, as recommended by the rule of thumb (Fisher, 1992). The statistical analysis indicated the acceptance of all hypotheses for direct relationships. From the perspective of domestic visitors, the study demonstrated significant positive relationships between natural resources, cultural heritage attractions, destination accessibility, quality of tourism services, and destination competitiveness.

Additionally, the multicollinearity issue was examined by calculating the variance inflation factor (VIF) for each construct. All VIF values in this study were found to be less than 10, indicating the absence of multicollinearity (Bock, Zmud, Kim, & Lee, 2005).

Table 4: Summary of Path Coefficients and Hypothesis Testing

Hypothesis	Relationship	Coefficient	t-value	Decision
H1	Natural Resources >> Competitiveness	0.158	2.104*	Supported
H2	Cultural Heritage Attraction >> Competitiveness	0.314	4.309**	Supported
H3	Accessibility >> Competitiveness	0.152	2.010*	Supported
H4	Quality of Tourism Services >> Competitiveness	0.170	2.259*	Supported

Note: Single-tailed hypothesis testing = $t > 1.645^*$; $p < 0.05$, or $t > 2.33^{**}$, $p < 0.01$.

Source: Authors

Discussion

The statistical results in this study suggest that natural resources, cultural heritage attractions, destination accessibility, and quality of tourism services contribute positively to the competitiveness of Niah National Park, Bako National Park, Kubah National Park, Gunung Gading National Park, and Gunung Mulu National Park. The most significant positive effect on ecotourism competitiveness was found to be related to cultural heritage attraction, as evidenced ($\beta = 0.314$, $t = 4.309$). This finding supports previous research that has shown a positive correlation between cultural aspects and destination competitiveness (Gupta & Singh, 2019). Additionally, the study revealed that cultural heritage attractions play a crucial role in determining the competitiveness of destinations. This indicates that cultural heritage is a significant factor that drives destination competitiveness in national parks, according to tourists' perspectives.

The study found that natural resources significantly contribute to the competitiveness of ecotourism destinations in the abovementioned natural protected areas. These findings supported H1, which suggested that natural resources as a vital determinant of ecotourism destination competitiveness ($\beta = 0.158$, $t = 2.104$). Natural resources are essential factors in attracting tourists and enhancing their travel experiences. The results are consistent with previous research that demonstrates the positive correlation between natural resources and destination competitiveness (Lane, 2009; Jaafar & Maideen, 2012; Su, Wall, Wang, & Jin, 2018). Hence, the study's findings suggested that tourists viewed the size and quality of natural resources in these national parks as a predictor of competitiveness. This is justifiable as these eco-tourists who are commonly known as the nature lovers, place great emphasis and are highly sensitive towards the abundance of natural elements while they are visiting to these destinations.

Moreover, in consistent with studies in the past, the present findings revealed that cultural heritage attractions have a positive association with destination competitiveness ($\beta = 0.314$, $t = 4.309$), thus supporting H2. The role of culture has been widely stressed, specifically in boosting the competency of a tourism destination (Park, 2014; Gupta & Singh, 2019). Indeed, over the years, individuals are increasingly switching their travel preferences towards destinations that offer them with authentic cultural experiences (Fromm, 2017; Richards, 2018). In conjunction with the said phenomenon, this respective discovery is explainable as the cultural aspects are highly perceived by these eco-tourists.

The analysis of H3 showed that destination accessibility is positively related to destination competitiveness ($\beta = 0.152$, $t = 2.010$). In line with preceding studies, this present discovery has highlighted the significance of destination accessibility in determining a destination's competitiveness (Natalia et al., 2019; Thong, Lo, Suaidi, Mohamad, & Chin, 2019). In addition, earlier research has suggested that destination accessibility is one of the most critical factors in a tourism destination's competitiveness (Porto, Rucci, & Ciaschi, 2018). Therefore, it can be deduced that eco-tourists perceived that accessibility is crucial in determining a destination's competitiveness. High accessibility values of a place promise to enhance visitors' travel experiences during their trips, while adding to the sustainability of its market position.

Furthermore, the analysis for H4 showed that quality of tourism services has a positive correlation with ecotourism competitiveness ($\beta = 0.170$, $t = 2.259$), which is consistent with the findings of Muresan et al. (2019). This signifies that eco-tourists believed that the quality of accommodation, safety, attractions, and other factors such as availability of multilingual information contribute to the assessment of tourism services. Overall, this study supports the idea that ecotourism competitiveness is derived from natural resources, cultural heritage attraction, destination accessibility, and quality of tourism services in Sarawak, Malaysia. Therefore, tourism stakeholders are advised to prioritize these factors to ensure sustainable ecotourism development.

Conclusion and Implications

To sum up, the competitiveness of an ecotourism destination largely depends on its natural resources (Jaini et al., 2019). Domestic tourists seeking respite from busy work environments often choose to visit natural protected areas, but increased visitor arrivals and inadequate destination management can deplete environmental resources. Thus, it is crucial to ensure that a destination's resources, whether innate or synthetic, are of acceptable quality to maintain competitiveness and market position. This study confirms that tourists perceive natural resources as the most crucial factor in determining ecotourism destination competitiveness. Additionally, the study establishes the significance of cultural heritage attraction as a contributor to ecotourism competitiveness. Travellers are primarily drawn to a destination's unique cultural qualities for satisfying travel experiences. Therefore, cultural heritage appeal is viewed as a predictor of destination competitiveness.

The convenience of access to ecotourism destinations, particularly national parks, is considered by tourists as a significant factor in driving competitiveness. These destinations are typically sought by tourists who need a break from work stress, and thus, easy accessibility is expected to boost visitor arrivals. However, tourism stakeholders should be mindful of maintaining a balance as over-visitation could lead to exceeding carrying capacity and over-tourism. Therefore, maintaining adequate and high-quality accessibility is crucial for retaining competitiveness and market position among rivals. Similarly, the importance of quality tourism services, including environmental cleanliness, service delivery, and personnel friendliness, has been shown to contribute to the development of ecotourism competitiveness. Tourists have high expectations of service quality and fulfilling these expectations is vital for defining the competitiveness of destinations, particularly in nature-protected areas.

Theoretical Implications

The aim of this study is to investigate the link between destination resources and competitiveness in natural protected areas by incorporating competitiveness theory. This

integration contributes to the development of a theoretical model that includes destination resources and destination competitiveness, supporting the fundamental theory by demonstrating the importance of destination resources as crucial factors in establishing competitiveness. Efficient management of resources is crucial for enhancing the competitiveness of the tourism industry. The study's statistical analysis indicates that cultural heritage attractions and accessibility are the most significant factors among other destination resources for developing destination competitiveness, which helps identify the determining factors of ecotourism destination competitiveness.

This research aims to better understand domestic tourists' perspectives on how destination resources impact ecotourism destination competitiveness. Furthermore, this study contributes to the literature by examining the theoretical model in the context of ecotourism, which has been underexplored in previous studies (Crouch, 2010; Reisinger, Michael, & Hayes, 2018). The statistical results of this study provide empirical evidence of the positive correlation between destination resources and competitiveness, thereby contributing to the existing literature. The findings also exhibit reliability and validity scores through cross-validation measures that can be applied to future research, regardless of cultural and environmental settings (Prieto & Revilla, 2006).

Practical Implications

In today's rapidly changing world, destinations face various uncertainties that could potentially harm their sustainability, such as the COVID-19 pandemic. Therefore, it is crucial for policymakers and tourism industry players to have a strategic plan that takes into account the impact of such unpredictable circumstances. This study provides valuable insights for stakeholders to understand the significance of destination resources as a critical factor for destination sustainability and competitiveness. Specifically, natural resources, cultural heritage attractions, accessibility, and quality of tourism services are essential factors that attract visitors and enhance competitiveness. As such, policymakers, local planners, and business operators should develop effective management plans to monitor and utilize these resources to ensure the long-term sustainability of ecotourism destinations.

Limitations and Directions for Future Studies

Further research is needed to better understand the relationship between destination resources and competitiveness, especially in the context of ecotourism (Hardinata, Hermanto, Sukoco, & Zultaqawa, 2019). The study emphasizes the importance of these resources for the revitalization of ecotourism destinations post-COVID-19. To attain a more inclusive understanding of the impact of destination resources on competitiveness, it is suggested that future researchers integrate wider perspectives from international tourists, tourism players, and local communities, as the present study only focused on domestic tourists' perceptions. It may also be prudent for future researchers to consider the role of moderating variables such as community support in examining the relationships between these constructs. Additionally, the research model used in this study focused on five totally protected areas (TPAs) in Sarawak, Malaysia. However, it is possible to test the model in other ecotourism destinations to explore whether the results will be similar or divergent from the present study.

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Appendix

Appendix 1: Destination Resources and Competitiveness Items and Sources

Variables	Items No.	Sources
<i>Natural Resources (NR)</i>		
The destination has a beautiful natural landscape.	NR1	Dwyer & Kim,
The availability of flora and fauna to attract tourists.	NR2	2003; Cracolici &
The destination has a peaceful and restful atmosphere.	NR3	Nijkamp, 2008
The destination environment is well-preserved.	NR4	
The destination offers a lot in terms of natural scenic beauty.	NR5	
The destination has a varied and unique plant and wildlife habitat.	NR6	
<i>Range of Activities (RA)</i>		
There has variety of unique cultural attractions in the destination.	CHA1	Kozak &
There are unique ethnic groups and cultures in this area.	CHA2	Rimington, 1999;
Abundance of tourism resources (natural scenery, historic/cultural/heritage site, local culture, etc.).	CHA3	Go & Govers, 2000;
The destination offers interesting historical attractions.	CHA4	Heath, 2003;
The existence of high-quality arts and crafts in the destination.	CHA5	Alcañiz, García, & Blas, 2009
<i>Destination Accessibility (DA)</i>		
It was easy for me to get to the destination.	DA1	Dwyer & Kim,
The transportation options to destination are adequate.	DA2	2003;
Problem-free travel and vacation arrangement with the destination.	DA3	Gutierrez,
The ease to get abundant clear information about the destination before the travel.	DA4	Lamoureux,
The accommodation which I am staying is close to everywhere I want to go.	DA5	Matus, & Sebuya,
Access to cultural sites is not a problem when staying in the destination.	DA6	2005; Picard & Robinson, 2006;
It is easy for me to access to natural areas.	DA7	Getz, 2008; Chen et al, 2013
<i>Quality of Tourism Services (QS)</i>		
High quality and variety of activities offered for tourists at the destination (special events/festivals, entertainment, nightlife, etc.).	QS1	Bahar & Kozak,
High quality tourism infrastructure (accommodation, restaurant, local transport, health/medical facilities, etc.).	QS2	2007; Enright & Newton, 2004;
High quality of service/amenities at the destination.	QS3	Pechlaner et al., 2006; Gomezelj &
Cleanliness and hygiene are held in respect in the destination.	QS4	Mihalic, 2008;
The service quality of the staff (employees) is good.	QS5	Hudson, Ritchie, &
The destination stands for high quality tourism services.	QS6	Timur, 2004
<i>Destination Competitiveness (DC)</i>		
Tourism helps to increase the development of a strong destination image.	DC1	Crouch & Ritchie,
The destination's commitment to providing a satisfactory vacation experience for tourists.	DC2	1999; Frauman,
The destination's continuous commitment to the ongoing improvement and development of a high-quality destination.	DC3	1999; Hassan, 2000;
The destination commitment to providing a safe and secure environment.	DC4	Mihalic, 2000;
		Dwyer & Kim,
		2003; Enright & Newton, 2005;
		Meng, 2006