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THE CONNECTION BETWEEN COMPETITIVENESS AND SUSTAINABILITY IN TOURISM DESTINATIONS: EXAMINING THE HARD, SOFT, AND MODERATING EFFECTS OF KNOWLEDGE SHARING

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ABSTRACT
This paper aims to assess the impact of hard and soft measures on the competitiveness of tourism destinations. Additionally, this article examines the impact of tourism destination competitiveness on rural tourism sustainability management. Following that, knowledge sharing is used as a moderator variable to demonstrate its moderating effect on the relationship between tourism destination competitiveness and rural tourism sustainability. A total of 390 respondents, including both domestic and international tourists, who visited the six rural tourism destinations in Sarawak, Malaysia, voluntarily participated in this study. A PLS-SEM approach was used to evaluate the developed model, and WarpPLS software was used to perform the PLS estimate and hypotheses testing. The empirical findings indicated that destination appeal, tourism infrastructure, and service quality all have a significant and positive effect...
on the competitiveness of tourism destinations. Additionally, it was discovered that tourism destination competitiveness has a positive and significant effect on the sustainable management of rural tourism destinations.

**KEYWORDS**
Tourism; Destination competitiveness; Sustainable management; Knowledge sharing; PLS-SEM; Malaysia.

**ECONLIT KEYS**
L83; Z32; Q01.

1. **INTRODUCTION**

Widely regarded as one of the world’s largest and fastest-growing industries, the tourism sector is often attributed as a significant driver of a nation’s economy. Its contributions towards the country’s economic growth include increased earnings of local communities through the creation of additional jobs and business opportunities for both community members and tourism stakeholders (Long & Nguyen, 2018; Scott, Hall & Gössling, 2019; Nicolaides, 2020). This phenomenon has also been observed in the rural settings of Malaysia, as rural communities are turning towards rural tourism as a means of alternative income generation (Sapari, Shuib, Ramachandra & Kunasekaran, 2019). In a 2020 report, it was projected by the World Travel & Tourism Council that the global Travel & Tourism sector would see growth by up to 3.5 percent in 2019, totalling $8.9 trillion in contributions. However, due to the emergence of the COVID-19 pandemic which resulted in a 72 percent drop in international tourist arrivals from January to October 2020, costing the tourism industry US$1 trillion (UNWTO, 2020b), it is clear that the travel and hospitality industry were among those hardest hit by the pandemic. Consequently, in an effort to revive and redevelop the tourism industry as the world looks towards living with COVID-19, many countries are resuming some tourism activities, in accordance with Standard Operating Procedures (SOPs). This includes putting the 3Cs – Confined spaces, Close contact, and Crowded spaces – into practice.

Changes in the travel practices have positively affected rural tourism, as rural destinations are strategic due to the lack of crowds and the further distances from the city centre. Rural tourism began gaining popularity even before the pandemic, owing to the attractive natural and cultural components that allow visitors to unwind and escape from their hectic daily routines (Zhu & Deng, 2020). It is expected that this
trend will continue to grow as more tourists seek to holiday in COVID-19 compliant locations. Despite seeing steady growth over the past decade, the industry has not been without challenges, as previous studies have confirmed an increase in competition among tourism destinations (Fernández, Azevedo, Martín & Martín, 2020; Mustafa, Omar & Mukhiar, 2020). These findings are even more relevant today as tourists continue to seek out less crowded and open space tourism destinations, especially during the post-Covid-19 period (UNWTO, 2020a). In considering the increased competition faced by rural tourism destinations, this research thus aims to closely look at potential tourism contribution in rural areas in terms of competitiveness and sustainability.

Tourism products can be both tangible or intangible in nature (UNWTO, 2019), and previous research indicates that both hard and soft resources (destination appeal and tourism infrastructure) and service quality and destination image are critical factors in the development of rural tourism destination competitiveness (Adeyinka-Ojo & Nair, 2015; Owiya, Mulwa & Kemboi, 2019). Although previous research identifies both tangible and intangible assets as critical resources for the growth of tourism destination competitiveness, a gap in the literature is seen with regard to competitiveness of rural tourism destinations. To date, no studies have examined the relationship between both hard and soft resources and the phenomenon of rural tourism destination competitiveness in a unified framework. In light of today’s enormous growth and increasing challenges for rural tourism development (Campón-Cerro, Hernández-Mogollón & Alves, 2017), innovation has emerged as the primary factor that distinguishes one rural tourism destination from another, particularly in determining a tourism destination’s level of competency, and “knowledge” has long been recognised as the key to innovation (Silva, Rodrigues, Mendes & Pereira, 2010). According to the United Nations Development Programme (2013), new knowledge is required to improve living conditions in rural areas. Ali and Avdic (2015) investigated the use of a knowledge management framework for sustainable rural tourism development. It was found that knowledge sharing is regarded as one of the most important components for the long-term development of rural tourism destinations. It was also recognised that knowledge sharing among individuals can result in the creation of new knowledge for tourism development (Odunga, Kieti & Too, 2020).
In sum, there are no known studies investigating both hard and soft measures in a single framework and testify in the Asian context of rural tourism destinations. Hence, the current study aims to fill the literature and practical gaps, and investigate the proposed research model from the tourists’ perspective by examining the potential impacts of hard measures (i.e., destination appeals and tourism infrastructure) and soft measures (i.e., service quality and destination image) on the development of rural tourism destination competitiveness and its impact on sustainable tourism development. Furthermore, this is possibly the first study to use knowledge sharing as a moderator variable and investigate its moderating impact on the relationship between rural tourism destination competitiveness and sustainable management of rural tourism destinations. The preceding section introduces the study’s context. The following sections discuss the review of the literature, the technique employed in this study, the analysis, and the results discussion.

2. LITERATURE REVIEW

2.1) COMPETITIVENESS THEORY AND SUSTAINABLE MANAGEMENT OF RURAL TOURISM

In attempting to explain the development of rural tourism destination competitiveness and sustainability management from the perspective of tourists, Competitiveness Theory was used as the underpinning theory of the proposed research framework (see Figure 1). Porter (1985) defined competitiveness theory as consisting of two fundamental concepts: comparative advantage and competitive advantage. Bordas (1994) explained comparative advantages to be centred on the destination’s natural and available resources, whereas competitive advantages are based on created resources. Over the last decade, arguments have advocated that competitiveness is crucial for tourism destinations to achieve tourism development as well as sustainability (Mihalič, 2000; Dwyer & Kim, 2003; Solana-Ibáñez, Para-González & Nieves-Nieto, 2016). A component of destination competitiveness that has been receiving much attention from both the public and private sectors is sustainable management (Yu, Chancellor & Cole, 2011). Aside from that, previous studies also demonstrate the idealness and applicability of Competitiveness Theory
in tourism development and rural tourism contexts (Oye, Okafor & Kinjir, 2013; Mutambo, 2018).

Given that both comparative and competitive advantage are fundamental concepts in Competitiveness Theory (Mihalič, 2000), this theory provided a theoretical and practical foundation for the proposed hard (i.e., destination appeal and tourism infrastructure) and soft (i.e., service quality and destination image) measures of rural tourism destinations. Knowledge sharing was also identified as one of the resources developed for the advancement of tourism destination competitiveness. As a result, Competitiveness Theory underpins the research framework by explaining how hard measures, soft measures, and knowledge sharing contribute to the development of rural tourism destination competitiveness and sustainability management from the tourists’ perspective.

2.2) SUSTAINABLE MANAGEMENT OF RURAL TOURISM

The link between sustainable management and destination competitiveness has been observed by numerous researchers in the area of tourism (Enright & Newton, 2005). Goodwin (2008) defined sustainable management as development that meets current needs while protecting and improving resources for economic, social, cultural, ecological, and biological sustainability. On the other hand, sustainable management is associated with the development of a tourism destination that meets the needs of tourists while conserving local resources for the tourism destination’s long-term development (Adamov, et al., 2020). Tourism development commonly observes two outcomes; positive (e.g., income generation for local communities) and negative (environmental degradation, large influx of visitors, vandalism, or excessive waste production) (Sugiama, 2019). Contrasting opinions state that the concept of sustainable tourism is similar to the concept of rural tourism in that both emphasise on preserving natural resources and local cultural heritage to meet the needs of tourists while also preserving them for future generations (Costa, Rodrigues & Gomes, 2019; Parashar, Bhardwaj & Kumar, 2014).

Natural and environmental resources are undeniably the most important aspects of the rural tourism industry, and the sustainable use of these resources for tourism development is critical, because depletion of these resources is equivalent to destroying the primary source of income generation. It has been argued that long-
term management and development is vital in the tourism industry (Nicolaides, 2020), as well as the need to focus on balancing the preservation of natural heritage and cultural aspects for the sustainable development of tourism destinations (Curcija, Breakey & Driml, 2019).

2.3) HARD AND SOFT MEASURES OF RURAL TOURISM

Considering that both hard and soft measures of rural tourism can add value to the development of tourism destinations (Qu, Kim & Im, 2011; Schaar, 2013), this study used both destination appeal and tourism infrastructure as hard measures as these factors contribute to the physical satisfaction of visitors, while service quality and destination image were used as soft measures. Part of a destination’s appeal includes the natural and cultural attractiveness of a destination, rather than its built environment. Conservation and constant improvement of the natural and cultural attractiveness of a tourism destination is therefore crucial in order to maintain its unique assets (Potashova & Girijchuk, 2019; Suryawardani, Wiranatha, Purbanto & Nitivattananon, 2020). Tourism infrastructure, on the other hand, has emerged as one of the most important factors influencing tourists’ travel decisions when choosing a tourism destination (Chi, Lee, Ahn & Kiatkawsin, 2020). The availability of tourism infrastructure inevitably improves the capability of a destination to compete with other tourist destinations (Long & Nguyen, 2018), as better infrastructure would indirectly improve the travel experiences of tourists, leading to a positive impact on tourist arrival rates.

Tourism is often associated with the provision of intangible products or experiences to visitors (Grigaliūnaitė, Pileienė & Bakanauskas, 2015), and services are ultimately one of the assets (Skálová & Peruthová, 2016) that plays a critical role in determining the success of the travel sectors (Darfoon, 2013). In today’s modern, globalised, and competitive environment, the concept of service quality has been a primary concern of service providers’ (Ramseook-Munhurrun, Naidoo, Seebaluck & Pillai, 2016). The term service quality is often assumed to be a multi-dimensional concept that can be interpreted differently depending on the context in which it is used (Pollack, 2009). Much debate has been outlined in the rural tourism literature to illustrate and prove the importance of service quality in increasing tourist satisfaction.
which will then influence a visitor’s intention to return (Chi et al., 2020; Nguyen, 2020).

On the other hand, destination image has been identified as a critical factor in enhancing a tourism destination’s competitiveness (Melo, Moniz, Silva & Batista, 2017; Perles-Ribes, Ramón-Rodríguez, Moreno-Izquierdo & Such-Devesa, 2019). Tourism destinations that can provide positive tourism experiences to tourists are deemed capable of generating visit or revisit intentions (Santoso, 2019). A tourism destination’s image is determined by one’s perceptions and feelings about the destination’s tourism resources (i.e., natural, cultural, activities, accommodation, and transportation), as positive experiences tend to create a favourable image of the destination. Therefore, it is critical for tourism destinations to have high-quality tourism infrastructure in order to enhance tourist experiences. In short, the study framework included both hard (destination appeal and tourism infrastructure) and soft (service quality and destination image) measures to ascertain their impact on rural tourism destination competitiveness from a tourist perspective.

Past research has consistently demonstrated that the components of destination appeal are critical in determining a destination’s competitiveness (Dugulan, Balaure, Popescu & Veghes, 2010; Taylor, Daye, Kneafsey & Barrett, 2014). Elements of destination appeal such as cultural heritage, natural resources, and outdoor recreation for tourists, were discovered to significantly contribute towards the destination’s comparative advantage (Patti, 2019). Alberti and Giusti (2012) discovered that cultural heritage plays a critical role in the competitiveness of tourism destinations, while Lane (2009) found that natural resources are critical attributes that attract visitors and serve as the foundation for destination competitiveness. Ayikoru (2015) revealed that the availability of tourist activities enhance destination competitiveness, while tourism infrastructure is regarded as the main factor determining the success of the tourism sector (Jiang, Li & Xu, 2010). This is of utmost importance when looking at rural tourism destinations, as a the majority of tourists are concerned with the accessibility and transportation which will take tourists from the city centre into the remote destination (Seyidov & Adomaitienė, 2016). Additionally, Nazmfar, Eshghei, Alavi, and Pourmoradian (2019) revealed that the provision of excellent tourism infrastructure would boost the destination’s competitiveness, which includes its comparative and competitive advantage.
Additionally, it has been highlighted in tourism research that service quality is critical for enhancing a tourism destination’s competitive advantage (Skálová & Peruthová, 2016; Wafik, 2017). Sarwar (2013) examined the relationship between destination competitiveness and service quality from the perspective of medical tourists in Malaysian medical tourism. In a similar vein, Ilić, Đeri, Stamenković and Milićević (2016) argued that travel agencies need to provide high-quality services as this provides them with the competitive edge in the industry today. Moreover, previous research has also revealed a strong positive correlation between destination image and destination competitiveness, as a more favourable destination image tends to boost tourism destination competitiveness. A positive destination image tends to boost its competitiveness as it acts as a pull factor, motivating or influencing tourists to visit (Perles-Ribes et al., 2019). It has been established that a positive destination image frequently provides tourism destinations with a competitive advantage over other competitors in the same marketplace (Chetthamarongchai, 2017). In light of the discussions made in existing research, the following hypotheses were developed:

H1 : Destination appeal is positively related to rural tourism destination competitiveness.

H2 : Tourism infrastructure is positively related to rural tourism destination competitiveness.

H3 : Service quality is positively related to rural tourism destination competitiveness.

H4 : Destination image is positively related to rural tourism destination competitiveness.

2.4) TOURISM DESTINATION COMPETITIVENESS

Competitiveness can be defined as the combination of assets and processes, and is achieved through the processing and transformation of both natural and created resources into economic results (Crouch & Ritchie, 1999). Following these definitions, it was proposed that in order to develop a tourism destination’s competitiveness, it is critical for the destination to have both hard and soft resources and to provide services that enhance visitors’ experiences. The growing research
trend on tourism destination competitiveness is most likely a result of the increased competition in the current tourism sector (Guo, Jiang & Long, 2020; Rahmiati, Othman & Tahir, 2020). Studies have shown that it is critical for a tourism destination to identify unique selling propositions that contribute to the long-term development of tourism destination competitiveness (Ching, Lo, Suaidi, Mohamad & Chin, 2019). It is also important to note that in order to outperform other tourism destinations, a tourism destination must have some significant resources for enhancing their comparative and competitive advantage (Nadalipour & Khoshkhoo, 2019). According to a recent study by Rodríguez-Díaz and Pulido-Fernández (2021), a competitor analysis is necessary to have a better understanding of a destination’s competitive capabilities. Therefore, it is critical to conduct a thorough investigation into the concept of tourism destination competitiveness and its antecedents.

Strategic and sustainable management strategies are also vital aspects in enhancing tourism destination competitiveness (Buhalis, 2000). Sedmak and Kociper (2013) emphasised the importance of considering sustainability when developing a tourism destination, as unstructured and unplanned development tends to degrade the tourism destination’s natural resources, resulting in the destination’s failure to develop. Indeed, numerous previous studies have established sustainable management as a critical construct for destination competitiveness, most notably in the study of tourism destinations (Hassan, 2000; Enright & Newton, 2005). Generally, the concept of sustainable management is to eliminate or mitigate all negative consequences of rural tourism development, as tourism resources are the core competencies of the rural tourism industry (Vitasurya, 2016). Essentially, the precondition for a tourism destination to outperform its competitors in the same industry is to arm itself with superior comparative and competitive resources (Suryawardani et al., 2020). Thus, it is proposed that a competitive tourism destination could result in more sustainable management of rural tourism destinations, however, few studies have examined the effect of tourism destination competitiveness on rural tourism destination sustainability. Thus, this study is likely one of the first to investigate the effect of tourism destination competitiveness on the sustainability of rural tourism destinations in the Asian context. As a result, the following hypothesis was advanced:
H5: Tourism destination competitiveness is positively related to sustainable management of rural tourism.

2.5) KNOWLEDGE SHARING

“Knowledge” is explained as a collection of experiences, values, and contextual data, and it is fundamentally a human product (Puccinelli, 1998). Knowledge is classified into two broad categories: explicit knowledge and tacit knowledge (Burke & Sulaiman, 2008), with explicit knowledge defined as knowledge that can be documented and stored in a formal and systematic manner, while tacit knowledge is described as undocumented knowledge or knowledge that is deeply rooted in action and acquired through experience (Jain, Manjit & Gurvinder, 2007). Several studies have identified knowledge sharing as a critical component of determining the tourism and hospitality industry’s competency and success (Yiu & Law, 2012; Kacperska & Lukasiewicz, 2020), as the process of knowledge sharing has evolved into a prerequisite factor for encouraging innovation and innovativeness in the tourism and hospitality industry (Hoarau & Kline, 2014). Charband and Navimipour (2016) defined knowledge sharing as the exchange of knowledge (e.g., information, skills, or expertise) between individuals, groups, communities, or organisations. Due to the critical role that knowledge sharing plays in developing a tourism destination’s competitive advantage and sustainability, this study included knowledge sharing as a moderator variable in the proposed study framework. In short, it is believed that knowledge sharing can result in the creation of new knowledge in rural tourism, as the sharing of tourism experiences and knowledge with the community can result in the creation of new knowledge for tourism management and development.

It is noted that within the tourism industry, there is an increasing number of studies indicating that knowledge sharing is a critical way for tourism businesses to gain a competitive edge in today’s competitive marketplace (Yang & Wu, 2008; Rao, Yang & Yang, 2018). The concept of sustainable tourism management is inextricably linked to the development of the tourism industry in order to meet tourist needs while safeguarding the industry’s resources for long-term viability (Goodwin, 2008). According to Odunga et al. (2020), knowledge and knowledge sharing have been critical in enhancing a tourism destination’s competency. Indeed, within the field of
knowledge management research, a few studies have demonstrated that knowledge sharing is viewed as a critical step towards ensuring the sustainable management of competitive advantage (Islam, Jasimuddin & Hasan, 2015). Thus, the sharing of knowledge by tourists with members of the local community can help them develop rural tourism destinations’ competitiveness and sustainable management strategies. As a result, the following hypothesis was developed:

H6 : Knowledge sharing is positively moderating the relationship between tourism destination competitiveness and sustainable management of rural tourism; such that when knowledge sharing is high the relationship between tourism destination competitiveness and sustainable management of rural tourism will be stronger.

Based on this discussion of the existing research, the following research framework was proposed (see Figure 1):
3. METHODOLOGY

Quantitative data was collected through the distribution of questionnaires, and the data was analysed using a non-probability sampling technique. A purposive sampling technique was used to select respondents aged 18 years and older, regardless of whether they were domestic or international tourists, visiting the six rural tourism destinations in Sarawak. Annah Rais Bidayuh Longhouse, Kampung Po Ai Melugu, Rumah Panjang Bawang Assan, Rumah Benjamin Angki, Bario Kelabit Highlands, and Ba’kelalan Homestay were used as study locations (see Figure 2). One reason for focusing on rural tourism destinations in Sarawak is due to the fact that rural tourism destinations within the state have become increasingly interesting to tourists because of the region’s unique combination of natural, cultural, and adventure tourism. If the study in Sarawak is successful, tourism-related activities may provide a lucrative alternative source of income for the local communities. The success of this model could also have global implications for rural tourism destinations.

In total, 45 items were adapted from previous studies (Crouch & Ritchie, 1999; Dwyer & Kim, 2003; Liao, Chang, Cheng & Kuo, 2004; Chi & Qu, 2008; Cho, Byun & Shin, 2014; Basaran, 2016; Su, Hsu & Swanson, 2017) and adapted to the
Malaysian context. Respondents were asked to rate their level of agreement with the statements on a seven-point Likert scale (ranging from 1 for strongly disagree to 7 for strongly agree). The minimum sample size was determined using the G*Power (version 3.1.9.2) software. By conducting an a priori power analysis with a medium effect size, a significance level of 0.05, and a power of 0.95, the recommended minimum sample size for evaluating the developed research model was determined to be 153. Out of the 450 distributed, a total of 412 were returned, indicating a response rate of 91.5 percent. The response rate of 91.5 percent indicates that no response error occurred, as it exceeds the recommended percentage of 70%. (Nulty, 2008).

Prior to conducting the measurement and structural analysis, a series of preliminary analyses using the Statistical Package for Social Science 23.0 was conducted to eliminate raw data with missing values and straight lining. Throughout the process, a total of 22 sets of questionnaires were discarded, while the remaining 390 sets were used to assess the measurement model's fitness and to test hypotheses. The Partial Least Square - Structural Equation Modeling (PLS-SEM) estimation procedure was used to examine the research model developed using the WarpPLS (version 7.0). (see Figure 1). The PLS-SEM analysis was used is because the data collected is small and non-normal distributed. According to Hair, Hult, Ringle, and Sarstedt (2017), a pattern of responses with skewness and kurtosis greater than or equal to +1 is considered non-normal (see Table 1). Since the proposed framework included both direct and moderation hypotheses, WarpPLS was identified as the more appropriate software for analysing the complex model developed, as it is based on both true composites and SEM factors (Kock, 2017).

4. FINDINGS

4.1) ASSESSMENT OF THE MEASUREMENT MODEL

A confirmatory composite analysis was used to determine the reliability, convergent validity, and discriminant validity of the measurement scales. According to the findings (see Table 2, final iteration), all items have loadings greater than 0.50 (Bagozzi, Yi & Philipps, 1991), and the composite reliability (CR) and average variance extracted (AVE) of all constructs were greater than 0.70 (Chin, 2010) and
0.50 (Fornell & Larcker, 1981), respectively. However, although the AVE value for sustainable management is less than 0.5, as suggested by Fornell and Larcker (1981), AVE values less than 0.5 but greater than 0.4 are acceptable if the CR value is greater than 0.6 as the convergent validity of the construct is still adequate. Using these observations as a guide, internal consistency was established. Referring to Fornell and Larcker’s (1981) criterion, the value of AVE was square-rooted and tested against the construct’s inter-correlation with other constructs in the research model, with all values noted as greater than each construct’s correlation (Chin, 2010). Thus, the measurement model was sufficient in terms of reliability, convergent validity, and discriminant validity. The coefficients of determination (R2) for rural tourism destination competitiveness and rural tourism sustainable management were 0.425 and 0.285, respectively, and explained more than 42.8 and 28.5 percent of the construct (Cohen, 1988).

<table>
<thead>
<tr>
<th>Skewness</th>
<th>DestAppe</th>
<th>TouInfra</th>
<th>ServQual</th>
<th>DestImag</th>
<th>RTDC</th>
<th>SustMan</th>
<th>KnowShar</th>
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<td></td>
<td>0.095</td>
<td>-0.704</td>
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<td>0.124</td>
<td>0.852</td>
<td>1.399</td>
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Table 1: The skewness and excess kurtosis.

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<th>Measurement Item(s)</th>
<th>Loading</th>
<th>CR&lt;sup&gt;a&lt;/sup&gt;</th>
<th>AVE&lt;sup&gt;b&lt;/sup&gt;</th>
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<th>AVE&lt;sup&gt;b&lt;/sup&gt;</th>
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<td>0.713</td>
<td>TouInfra_03</td>
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<td>0.937</td>
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<td>0.937</td>
<td>0.713</td>
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<td>0.937</td>
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<td>0.713</td>
<td>TouInfra_05</td>
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<td>0.937</td>
</tr>
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<td>TouInfra_05</td>
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<td>0.713</td>
<td>TouInfra_06</td>
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<td>0.937</td>
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<td>Service Quality (ServQual)</td>
<td>ServQual_01</td>
<td>0.746</td>
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<td>0.458</td>
<td>ServQual_02</td>
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<td>0.792</td>
</tr>
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<td>0.458</td>
<td>ServQual_03</td>
<td>0.785</td>
<td>0.792</td>
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<td></td>
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<td>ServQual_04</td>
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<td></td>
<td>ServQual_05</td>
<td>0.529</td>
<td>0.792</td>
<td>0.458</td>
<td>DestImage_01</td>
<td>0.728</td>
<td>0.744</td>
</tr>
<tr>
<td></td>
<td>DestImage_01</td>
<td>0.728</td>
<td>0.744</td>
<td>0.314</td>
<td>DestImage_02</td>
<td>0.775</td>
<td>Omitted</td>
</tr>
<tr>
<td></td>
<td>DestImage_02</td>
<td>0.775</td>
<td>Omitted</td>
<td>Omitted</td>
<td>Omitted</td>
<td>Omitted</td>
<td>Omitted</td>
</tr>
</tbody>
</table>

| DestImage_01 | 0.728 | 0.744 | 0.314 | Omitted | Omitted | Omitted | Omitted |

14
### Table 2: Results of measurement model.

Note: Items ServQual_04, ServQual_05, DestImage_01, DestImage_02, DestImage_03 and DestImage_04 were deleted due to low loadings.

<table>
<thead>
<tr>
<th>(DestImage)</th>
<th>DestImage_03</th>
<th>DestImage_04</th>
<th>DestImage_05</th>
<th>DestImage_06</th>
<th>DestImage_07</th>
<th>DestImage_08</th>
<th>Omitted</th>
</tr>
</thead>
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<tr>
<td>0.788</td>
<td>0.654</td>
<td>0.462</td>
<td>0.177</td>
<td>0.158</td>
<td>0.252</td>
<td>Omitted</td>
<td>0.709</td>
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</tbody>
</table>

<table>
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<tr>
<th>Rural Tourism Destination Competitiveness (RTDC)</th>
<th>C_CAdv_01</th>
<th>C_CAdv_02</th>
<th>C_CAdv_03</th>
<th>C_CAdv_04</th>
<th>C_CAdv_05</th>
<th>C_CAdv_06</th>
<th>C_CAdv_07</th>
<th>C_CAdv_08</th>
<th>Omitted</th>
<th>Omitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.649</td>
<td>0.899</td>
<td>0.529</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.649</td>
<td>0.899</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sustainable Management (SustMan)</th>
<th>SustMan_01</th>
<th>SustMan_02</th>
<th>SustMan_03</th>
<th>SustMan_04</th>
<th>SustMan_05</th>
<th>SustMan_06</th>
<th>Omitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.783</td>
<td>0.850</td>
<td>0.492</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.850</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge Sharing (KnowShar)</th>
<th>KnowSha_01</th>
<th>KnowSha_02</th>
<th>KnowSha_03</th>
<th>KnowSha_04</th>
<th>KnowSha_05</th>
<th>Omitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.799</td>
<td>0.909</td>
<td>0.666</td>
<td></td>
<td></td>
<td></td>
<td>0.816</td>
</tr>
</tbody>
</table>

### Table 3: Discriminant validity of constructs.

Note: The diagonals denote the square root of the extracted average variance (AVE), whereas the other entries denote the correlations.

| 1. Destination Appeal | 0.725 |
| 2. Tourism Infrastructure | 0.273 | 0.844 |
| 3. Service Quality | 0.260 | 0.651 | 0.832 |
| 4. Destination Image | -0.034 | 0.207 | 0.283 | 0.769 |
| 5. Tourism D.C. | 0.467 | 0.490 | 0.488 | 0.164 | 0.728 |
| 6. Sustainable Management | 0.082 | 0.578 | 0.560 | 0.380 | 0.513 | 0.701 |
| 7. Knowledge Sharing | -0.112 | 0.120 | 0.073 | 0.094 | 0.064 | 0.152 | 0.816 |

#### 4.2) ASSESSMENT OF THE STRUCTURAL MODEL

Following that, Table 4 and Figure 3 summarise the results of the hypotheses testing. For one-tailed hypotheses testing, the t value should be greater than 1.645 (p<0.05) or 2.33 (p<0.01). Interestingly, it was found that destination appeal (H1),
tourism infrastructure (H2), and service quality (H3) have a significant positive relationship with rural tourism destination competitiveness from the perspective of tourists. Additionally, competitiveness of rural tourism destinations was found to be positively associated with sustainable management of rural tourism destinations (H5). However, the proposed moderation hypothesis, H6, was found to be unsupported, indicating that knowledge sharing did not strengthen the relationship between rural tourism destination competitiveness and sustainable management. On the other hand, the variation inflation factor (VIF) values were determined to investigate the issue of construct multicollinearity. All VIF values were less than 10, indicating that there is no issue of multicollinearity between the constructs (Bock, Zmud, Kim & Lee, 2005). To demonstrate the model's predictive relevance, the Q2 value was calculated as 0.426 (competitiveness of rural tourism destinations) and 0.284 (sustainable management of rural tourism), which is consistent with the suggestion made by Hair et al. (2017), which states that a Q2 value greater than zero is significant. Besides this, a value of 0.095 was reported for the standardised root mean squared residual (SRMR). A value of SRMR less than 0.10 indicates that the model fits the data reasonably well (Kock, 2020).

<table>
<thead>
<tr>
<th>H</th>
<th>Relationship</th>
<th>Standard Beta</th>
<th>P-value</th>
<th>t-value</th>
<th>Decision</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Destination Appeal → TDC</td>
<td>0.345</td>
<td>&lt;0.001</td>
<td>7.181**</td>
<td>Supported</td>
<td>1.177</td>
</tr>
<tr>
<td>H2</td>
<td>Tourism Infrastructure → TDC</td>
<td>0.262</td>
<td>&lt;0.001</td>
<td>5.384**</td>
<td>Supported</td>
<td>1.655</td>
</tr>
<tr>
<td>H3</td>
<td>Service Quality → TDC</td>
<td>0.214</td>
<td>&lt;0.001</td>
<td>4.366**</td>
<td>Supported</td>
<td>1.648</td>
</tr>
<tr>
<td>H4</td>
<td>Destination Image → TDC</td>
<td>0.048</td>
<td>0.172</td>
<td>0.949</td>
<td>Not Supported</td>
<td>1.103</td>
</tr>
<tr>
<td>H5</td>
<td>TDC → Sustainable Management of Rural Tourism</td>
<td>0.465</td>
<td>&lt;0.001</td>
<td>9.829**</td>
<td>Supported</td>
<td>1.165</td>
</tr>
<tr>
<td>H6</td>
<td>Knowledge Sharing moderates TDC → Sustainable Management</td>
<td>-0.140</td>
<td>0.002</td>
<td>-2.824</td>
<td>Not Supported</td>
<td>1.165</td>
</tr>
</tbody>
</table>

Table 4: Path coefficients and hypothesis testing.
Note: p < 0.01** = t > 2.33; p < 0.05 = t > 1.645*
5. DISCUSSION

The study aimed at investigating the effects of both hard and soft measures on tourism destination competitiveness in rural Sarawak, as well as the impact of tourism destination competitiveness on the sustainable management of rural tourism destinations, using knowledge sharing as a moderating variable to strengthen the relationship between the proposed predictor and the dependent variable. Here, it was found that H1, H2, H3, and H5 were supported statistically. Surprisingly, this was not the case with H4 and H6, as both were discovered to be unsupported. According to hypothesis 1, destination appeal is positively related to rural tourism destination competitiveness from the perspective of tourists ($\beta = 0.345$; $p < 0.001$; $t = 7.181$). The findings of hypothesis 1 are also supported by previous studies (Chambers, 2010; Abolfazl, 2012) which reported that destination appeal is a critical factor in enhancing the competitiveness of tourism destinations. Indeed, it is proposed that tourists who visit rural tourism destinations are primarily drawn to the destination’s resources (e.g., natural, cultural, and outdoor activities), as these are the resources that enhance the destination’s comparative advantage (Dugulan et al., 2010).

The statistical results for hypothesis 2 showed that tourism infrastructure is positively related to rural tourism destination competitiveness ($\beta = 0.262$; $p < 0.001$; $t = 5.384$), indicating that the hypothesis is supported as proposed. One of the most difficult challenges for tourists visiting most rural tourism destinations is dealing with transportation and connectivity, either due to poor quality transportation infrastructure
or higher costs. As a result, the findings of this study revealed that tourists believe that a good tourism infrastructure (e.g., transportation, accommodation, and facilities) is important for the development of rural tourism destination competitiveness because higher quality of infrastructure tends to attract more tourists to rural tourism destinations (Goffi, 2013).

On the other hand, the statistical results for hypothesis 3 (β = 0.214; \( p < 0.001; \ t = 4.366 \)) supported the proposed hypothesis, in that service quality has a positive and significant relationship with rural tourism destination competitiveness. Moreira and Dias (2010) discovered that it is critical for a tourism destination to provide high-quality service to visitors because this can affect tourists’ satisfaction and therefore increase tourism destination’s competitiveness. The findings of this hypothesis also substantiate the findings of Wafik (2017), who found that enhanced service quality results in the better development of a tourism destination’s competitive advantage. It is believed that a high level of service quality is critical because it influences tourists’ satisfaction and likelihood to return (Davidson, 2016).

Another finding from this study is that the statistical results for hypothesis 5 (β = 0.465; \( p = 0.172; \ t = 9.829 \)) were found to be consistent, indicating that tourism destination competitiveness has a positive and significant relationship with the sustainable management of rural tourism destinations. As shown by the statistical findings, tourism destinations with high levels of competency tend to have a more sustainable management of the rural tourism destination. A competitive tourism destination formed using both natural and built resources make a significant contribution to the competitiveness of rural tourism destinations. Thus, it is believed that in order to ensure the sustainability of rural tourism destinations, priorities should be placed on enhancing their comparative and competitive advantage in terms of tourism resources.

Contrary to expectations, hypothesis 4 was not supported (β = 0.048; \( p < 0.001; \ t = 0.949 \)). The statistical findings contradicted earlier studies, which found a positive and significant relationship between destination image and tourism destination competitiveness (Maliva & Jani, 2017; Foroudi et al., 2018). These contradictory findings demonstrate that improving the image of rural tourism destinations will not result in increased competitiveness. Contradictory findings could be explained by the concept of heterogeneity within rural tourism destinations (Dolnicar & Hyubers, 2010). Without a doubt, different tourists have varying reasons for travelling and seek
various different tourism experiences, and tourists who visited Sarawak’s selected rural tourism destinations may believe that the tourism destinations’ current developed image does not meet with their expectations. Thus, tourists believed that the image of tourism destinations could not result in a comparative and competitive advantage for rural tourism destinations in the present situation.

Hypothesis 6 was found to be statistically unsupported as the statistical findings indicated that knowledge sharing had no moderating effect on the relationship between tourism destination competitiveness and rural tourism destination sustainable management ($\beta = -0.140; p = 0.002; t = -2.824$). This implies that when knowledge sharing is high, the relationship between destination image and rural tourism destination competitiveness is not as strong. Considering that in the present study, knowledge sharing only occurred between two stakeholders, the local community and the tourist, this finding is therefore justifiable. It is believed that increased collaboration and involvement of other tourism stakeholders (i.e., government agencies or tourism agencies) is necessary for the development of rural tourism destinations’ competitiveness and for the management of rural tourism destinations to be more sustainable.

6. CONCLUSION, THEORETICAL AND PRACTICAL IMPLICATIONS

The findings of the study indicate that both hard and soft measures are significant and positively correlate with destination competitiveness of rural tourism destinations in Sarawak. Tourism destination competitiveness was discovered to be one of the most important resources for the long-term management of rural tourism destinations. Overall, the findings are inextricably linked to the fundamental concept of destination competitiveness, in which destination appeal serves as an endowment resource (comparative advantage), while tourism infrastructure, destination image, and knowledge sharing serve as created resources (competitive advantage) for the development of rural tourism destination competitiveness and its contribution to sustainability.

On a theoretical level, this research successfully developed some guidelines for scholars and practitioners working in the field of rural tourism destination competitiveness. As this is the first study to examine both hard and soft measures and their impact on rural tourism destinations in Sarawak, Malaysia, the results of the
study therefore contributes to the literature on competitiveness from an Asian country’s perspective. Additionally, this is also the first study to examine the moderating effect of tourism destination competitiveness on rural tourism sustainability management using knowledge sharing as a potential moderator variable.

The study’s findings inform tourism stakeholders such as local communities, industry players, and tourism-related government departments of tourists’ concerns when travelling to rural tourism destinations, allowing them to focus on these factors in order to increase destination competitiveness and sustainable management. Additionally, as the empirical findings indicate that knowledge sharing improves the relationship between destination image and rural tourism destination competitiveness, tourism planners should consider the value of knowledge sharing and develop a proper and structured platform for tourists to share their valuable knowledge with the rural local community, as well as develop a better idea or strategy for building or forming the image of a rural tourism destination in order to maintain competitiveness.

References


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