Community involvement and sustainable rural tourism development: perspectives from the local communities

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Abstract

The aim of this study is to examine the relationship between local communities' involvement and sustainable rural tourism development in the existing tourism industry in Kuching namely, Kampung Annah Rais and Kampung Darul Islam Belimbing. In tourism industry, the way how tourism stakeholders are pleased with mass tourism have been deeply affecting the achievement of sustainable rural tourism development. A questionnaire survey was carried out among the local communities who are currently staying and have been staying in these rural tourism destinations for more than a year. A sample of 113 usable questionnaires was obtained. Four hypotheses were developed regarding the effects of participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism on social, cultural, economic, and environmental sustainability. The findings suggest that local communities' participation in decision making, empowerment, and community knowledge about tourism do affect the sustainability of rural tourism development. Interestingly, findings indicated that knowledge sharing does not show positive relationship on sustainable rural tourism development. It is believed that poor relationship among the tourism stakeholders influences the effectiveness of knowledge sharing. Suggestions for practical implications and future research are discussed further.

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Keywords: community involvement; decision making; knowledge sharing; empowerment; community sustainable rural tourism development

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Introduction

Rural tourism or known as non-urban tourism includes a wide range of local activities, natural, attractions, facilities, transportation,

various amenities, marketing and information systems which are located outside of the cities (Sharpley & Sharpley, 1997). Previous researchers (e.g., Oppermann, 1996) posited

that rural tourism has been used interchangeably with various terms namely, agro-tourism, equestrian tourism, hunting tourism, rural heritage tourism, adventure tourism, ecotourism, and nature-based tourism. Farm-stay, home-stay, and other accommodation providers, activity-based businesses, retail outlets, gardens, museums, and other cultural and heritage products are categorized as rural tourism businesses in some countries (Warren & Taylor, 1999).

Rural tourism in Malaysia was introduced as a new form of tourism by the Malaysian government during the Seventh Malaysia Plan period (1996-2000) and it is still the main focus as one of the National Key Economic Areas (NKEA) under the Tenth Malaysia Plan to create employment opportunities and to increase the income levels among the rural communities (Nair, Munikrishnan, Rajaratnam, & King, 2014). In sum, tourism in Malaysia serves as the catalyst to motivate the economic growth and, in particular, improve the local communities' standard of living (Briedenhann & Wickens, 2004). Thus, it is important to ensure the sustainability of rural tourism development in Malaysia.

Rural tourism offers differentiated product offerings than urban tourism as rural areas are located outside of the cities and enables the tourists to participate in non-urban activities (e.g., hunting and jungle trekking) (Pesonen, Komppula, Kronenberg, & Peters, 2011). As a result, rural tourism is highly demanded among tourists who seek out for rural experiences such as the rural character of the places, natural environment, and the characteristic of the local communities. Nonetheless, social, cultural, economic, and environmental sustainability are affected due to mass tourism which was insensitive to the elements of sustainable rural tourism development (Fiorello & Bo, 2012). As such, this study investigated the impact of local communities' involvement on sustainable rural tourism development. Past researchers (e.g., Thongma, Leelapattana, & Hung, 2011; Hjalager, 2010) posited that local communities are the ones who are familiar with the tourists and with their local cultural activities. Hence, their involvement and support are essential to the success and development

of rural tourism. However, many tourism authorities and stakeholders neglected this important fact and opposed the idea of local communities' involvement in rural tourism development (Tosun, 2006; Liu, 2006). Moreover, there is a lack of participation among the local communities in rural tourism due to paternalism, racism, clientelism, lack of expertise, and lack of financial resources which hinder the process of community participation (Dogra & Gupta, 2012; Tosun, 2000). Therefore, it is vital to gain local communities' involvement and support when it is related to sustainable rural tourism development.

The purpose of this research is to evaluate the impact of local communities' involvement in tourism activities on sustainable rural tourism development in Kampung Annah Rais and Kampung Darul Islam Belimbing, two existing rural tourism destinations in Kuching, Sarawak, Malaysia. Kampung Annah Rais and Kampung Darul Islam Belimbing are located in the Padawan District at the foothill of Borneo Highlands near to the mountains marking the border to Kalimantan, approximately 60km away from the city of Kuching, Sarawak. As both tourist destinations are remotely located, it takes about 1.5 hours drive from Kuching. The population of the local communities in these rural tourism destinations are small and they are mainly Bidayuh and Bidayuh Muslims. The main source of livelihood in these rural tourism destinations is agriculture. Besides, the distinctive features of their landscapes and wooden long houses are part of their rural lifestyle. In addition, *Tuai Rumah* or known as the longhouse headmen is appointed to govern these rural destinations.

Thus, this study was designed as follows. Based on the previous researches, the section on hypotheses proposed a series of hypotheses on the 4 types of local community involvement in tourism activities namely, participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism on sustainable rural tourism development namely, social, cultural, economic, and environmental sustainability. The methodology section presents the data and the method used to analyse empirically the hypotheses developed in rural tourism in

Kampung Annah Rais and Kampung Darul Islam Belimbing. The section on the results presents the findings while the last section focuses on the conclusions, future research, and some of the limitations of this study.

Conceptual Background and Hypotheses

Community Involvement

Community involvement is referred to residents who are involved in sharing issues and knowledge about their lives and are involved in daily activities within their communities (Lee, 2013). Local communities who are involved in tourism activities have been repeatedly addressed as an action of support towards tourism development in their communities (Simmons, 1994). This is further supported by Caneday and Zeiger (1991) that residents' involvement in tourism activities will influence their attitudes and perception towards tourism.

Community involvement includes sharing knowledge, gaining commitment from the communities, and participation in decision making process and these will in turn achieve tourist satisfaction and sustainable rural tourism development (MacDonald & Jolliffe, 2003). Thus, it is believed that community involvement plays a pivotal role in sustaining rural tourism development (Gursoy & Rutherford, 2004; Nicholas, Thapa, & Ko, 2009).

Participation in Decision Making

Participation in decision making can be defined as the totality forms of direct (personal) or indirect (through representatives or institutions) and of intensities, ranging from minimal to comprehensive, by which individual, groups, and collectives secure their interests or contribute to the choice process through self-determined choices among possible actions during the decision process (Heller, Pusic, Strauss, & Wilpert, 1998). Bhuiyan (2010) noted that participation in decision making has a large impact on an individual's attitude, belief, and motivation.

Past researchers (e.g., Aas, Ladkin, & Fletcher, 2005; Simmons, 1994) opined that involving the local community in management and decision making process enables the local community to have an in-depth understanding

about the benefits of integrating tourism into their local economy. As a result, local community who involved in the decision making process will increase their understanding about tourism and in turn reduce their uncertainty. Besides, local community should be consulted when it is related to tourism decision making in their community (Choi & Sirakaya, 2005). This is so because the success and sustainability of tourism depend on the active involvement of these local communities. Hence, local communities' participation in decision making is viable as it will increase the productivity and profit of the particular tourist destination.

Knowledge Sharing

Knowledge sharing is the process where individuals mutually exchange their knowledge with others and jointly create new knowledge (Van Den Hooff & De Ridder, 2004). Besides, Ryu, Ho, and Han (2003) posited that knowledge sharing is an individual's behaviour in disseminating his or her knowledge to another person. The term knowledge sharing has been used interchangeably and synonymously with some other terms namely, knowledge flows, knowledge transfer, and diffusion of knowledge by past researchers (Cooper, 2006). Knowledge sharing is time consuming in which it does not show immediate success and it depends on an individual's willingness to share knowledge, time, and have high intention in order to make knowledge understood, absorbed, and used by others (Alavi & Leidner, 2001; Ipe, 2003). Effective knowledge sharing will be a source of competitive advantage to an organization, industry, and country due to it is hard to be imitate or substitute by others (Spender, 1996; Matzler & Mueller, 2011). Moreover, MacDonald and Jolliffe (2003) revealed that local communities who share their knowledge will help to enhance tourist experience. In addition, effective knowledge sharing will contribute to successful tourism development (Shaw & William, 2009). Therefore, an individual or organization which is capable of transferring knowledge successfully to others will achieve great performances.

Empowerment

Empowerment is defined as the capacity of individuals or groups in determining their own

affairs and it is a process where people take control over the factors that influence their lives (Scheyvens, 1999). Furthermore, Sofield (2003) posited that empowerment is a shift in balance between the powerful and powerless, between the dominant and dependent. Past researchers (e.g., Arnstein, 1969) posited that citizen participation must be accompanied by power redistribution or known as empowerment. This is so because local communities have the ability to make wise decisions and to seek out solutions to solve the problems in their community. This is further supported by Tosun and Timonhly (2003) that local community are knowledgeable about what will work and what will not work in local conditions. In addition, community empowerment is used to trigger the ability of the local communities to manage tourism development in their community (Cole, 2006). Hence, it is important to distribute power between and within the community groups in order to achieve sustainable rural tourism development.

Community Knowledge about Tourism

Community knowledge about tourism or known as local tourism awareness refers to the level of local knowledge on tourist, tourism, and its impacts (Saarinen, 2010). Rural tourism development is affected by factors such as economic development, humanitarian attitudes, environment, social values, and knowledge (Poostchi, 1986). According to Zapata, Hall, Lindo, and Vanderschaeghe (2011), local community who are knowledgeable about tourism development projects can reduce the poverty level in their community. This is so because individuals that are knowledgeable about tourism will recognize the costs and benefits that they will receive from tourism (Andereck, Valentine, Knopf, & Vogt, 2005). As a result, they will be motivated to participate in tourism activities in their community and in turn improve local economies. In addition, individuals who have wide knowledge about tourism could influence the development of the tourism in a community (Yang, 2012). Thus, sufficient community knowledge about tourism could help local communities be active participants in tourism development and in turn achieve sustainable rural tourism development.

Sustainable Rural Tourism Development

Sustainable tourism focuses on the fluid relationship between human and physical environment (McAreevey & McDonagh, 2011). Furthermore, Rattanasuwongchai (1998) posited that sustainable development refers to "rural development" and "rural tourism" in which are the keys to raise the local communities' standard of living and at the same time used to ensure the welfare of their present and future generations. Sustainable tourism is highly demanded due to mass tourism which was insensitive to its social, cultural, economic, and environmental condition of tourist destinations (Fiorello & Bo, 2012). As a result, sustainable tourism is used to avoid the negative effects of tourism on local destinations (Dolnicar, 2006). In this study, sustainable rural tourism development was employed. Sustainable rural tourism development has been defined as a tourism which focuses on the appropriate policies and strategies that could guarantee the benefits while restricting its negative impacts of rural tourism in rural community (Ertuna & Kirbas, 2012). There are four dimensions in sustainable rural tourism development, namely social, cultural, economic, and environmental sustainability (Timur & Getz, 2009). Hence, the following sections discusses on the four dimensions of sustainable rural tourism development.

Social Sustainability

Social sustainability is said to be achieved when a tourist destination manages to preserve the historical and cultural heritage (Sanagustin Fons, Fierro, & y Patino, 2011). Tourism, according to Timur and Getz (2009), may lead to social problems such as traffic congestion, construction projects, crimes, mixed effects on quality of life, and changes in the communities' identity. Besides, tourism can influence local communities' moral values due to monetary benefits (Archer, Cooper, & Ruhanen, 2005). On the other hand, tourism could enhance the social relationship among various stakeholders (Barnett & Casper, 2001). As such, local community participation in rural tourism is important to achieve positive social performance such as a decrease in vandalism, gambling, drugs, and prostitution (Deery, Jago, & Fredline, 2012; Eshliki & Kabousi, 2012; Thongma et al., 2011).

Cultural Sustainability

Culture is a set of traits that are shared by the “characteristics” of human societies and are transmitted by non-genetic means (Mulder, Nunn, & Towner, 2006). Tourism which views positively has changed the lifestyle of the local communities and on the other hand, it may be interpreted negatively as an indication of acculturation (Brunt & Courtney, 1999). In other words, tourism may cause long term changes in the community's values, beliefs, and cultural practices. Thus, local community involvement in tourism activities is the key element to preserve the traditional culture in a community (Dorobantu & Nistoreanu, 2012).

Economic Sustainability

Rural tourism has been a panacea for poverty in rural areas. Rural tourism provides employment opportunities, increase local prosperity, conserve the environment, and preserve the cultural assets and in turn ensure greater benefits for tourism stakeholders (McAreavey & McDonagh, 2011). However, there are tourism stakeholders who are only interested in the short term profits without considering the long term social and physical aspects of tourism which lead to drastic decrease in the number of tourists (Costa, 2001). Therefore, active involvement and participation of local community in rural tourism development process are the prerequisites to achieve sustainability and improve the overall welfare in the community (Thongma et al., 2011; Ertuna & Kirbas, 2012).

Environmental Sustainability

Environmental sustainability which is compatible with the maintenance of the ecological processes, biological diversity, and biological resources are important in order to provide an environment that is attractive for tourists to visit (World Travel and Tourism Council (WTTC), World Tourism Organization (WTO), & Earth Council, 1995; Sanagustin Fons, Fireeo, & y Patino, 2011). Rural tourism is seen as the optimal solution to preserve the nature, landscape, and environment. On the other hand, Cawley and Gillmor (2008) posited that tourism could harm the environment and the community. Thus, community involvement in rural tourism development process plays a crucial role in protecting the environmental

sustainability in a tourist destination (Dorobantu & Nistoreanu, 2012).

Development of Hypotheses

Participation in Decision Making and Sustainable Rural Tourism Development

Participation in decision making enables individuals or groups to secure their interest and in turn contribute to the decision making process. Thongma, Leelapattana, and Hung (2011) indicated that local communities who involved in decision making process will affect the survival of a tourist destination. Santana-Medina, Franco-Maass, Sanchez-Vera, Imbernon, and Nava-Bernal (2013) stated that local communities are capable of identifying, selecting, and measuring the sustainability indicators that will benefit the tourist destinations. Moreover, local communities who are familiar with their own community will make wise decisions on dealing with the problems and prospects of tourism development in their community (Aas, Ladkin, & Fletcher, 2005). As such, there are several researchers who hypothesized that community participation in decision making is positively related to sustainable rural tourism development (Ertuna & Kirbas, 2012; Roseland, 2012; Li, 2006; Snepenger, O'Connell, & Snepenger, 2001). Thus, the following hypothesis has been developed.

H1: Participation in decision making is positively related to sustainable rural tourism development as such social, cultural, economic, and environmental sustainability.

Knowledge Sharing and Sustainable Rural Tourism Development

Knowledge sharing enables individuals or groups to provide or receive information and skills from the interaction and communication among interest groups (Cohen & Bailey, 1997). Hwang, Stewart, and Ko (2012) hypothesized that there are positive associations between knowledge sharing and sustainable rural tourism development. Local community who are willing to share their knowledge with tourism stakeholders will enhance the prospects for sustainable rural tourism development. This is further noted by Ertuna and Kirbas (2012) that networking such as exchanging information between the local

communities and tourism stakeholders will contribute to successful local tourism development. Knowledge sharing enhance innovation and enables the local communities and tourism stakeholders to achieve social, cultural, economic, and environmental sustainability in a tourist destination. Furthermore, past researchers have elucidated that there are positive relationship between knowledge sharing and sustainable rural tourism development (Hall, 2011; Sorensen, 2007; Cooper, 2006; Jackson, 2006; Jackson & Murphy, 2006). Therefore, the following hypothesis has been established.

H2: Knowledge sharing is positively related to sustainable rural tourism development as such social, cultural, economic, and environmental sustainability.

Empowerment and Sustainable Rural Tourism Development

Empowerment enables individuals or groups to gain control or authority over the land, rules, and to establish mechanisms to enforce the rules (Cole, 2006; Sofield & Li, 2007). Empowerment is recognized as the important key to achieve sustainable rural tourism development (Coria & Calfucura, 2012; Choi & Murray, 2010; Sofield, 2003). Local communities who are empowered in tourism development are found to have significant impact on social, cultural, economic, and environmental sustainability (Boley & McGehee, 2014). Empowerment enables local communities to gain control or power over tourism development in their community and in turn influence the social lifestyle, economic development, and environmental protection of a particular tourist destination. Furthermore, community empowerment enables local communities to have a voice in tourism decision making process which in turn will bring maximum benefits to the tourist destinations (Dwyer, 2005). Hence, the following hypothesis has been developed.

H3: Empowerment is positively related to sustainable rural tourism development as such social, cultural, economic, and environmental sustainability.

Community Knowledge about Tourism and Sustainable Rural Tourism Development

According to Moscardo (2011), those who claim to have knowledge about tourism are knowledgeable about tourists, tourism, and its impacts and this knowledge is useful to make wise decisions to solve the range of barriers to sustainable rural tourism development. Community knowledge or awareness about tourism is important in order for local communities to participate actively in tourism and to have control over tourism development and practices. As such, this may in turn enable the local communities to recognize the benefits of tourism. Besides, Reid, Mair, and George (2004) highlighted that community's understanding of tourism is a crucial element to tourism development. Communities who have wide knowledge about tourism will create control mechanisms and sense of ownership of tourism and resources, which will in turn generate benefits for a tourist destination. As a result, it is hypothesized that community knowledge about tourism is positively associated with sustainable rural tourism development (Zapata, Hall, Lindo, & Vanderschaeghe, 2011; Saarinen, 2010; Novelli & Gebhardt, 2007; Tosun, 2006). Therefore, the following hypothesis has been developed.

H4: Community knowledge is positively related to sustainable rural tourism development as such social, cultural, economic, and environmental sustainability.

Resource-Based View Theory

Resource-based view in an organization is critical for an organization to achieve sustainable competitive advantage or superior performance (Henry, 2008; Fahy, 2000). There are three unique components in resource-based theory, namely tangible assets, intangible assets, and capabilities (Fahy & Smithee, 1999). In this study, participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism are categorized as capabilities, the third sub-group of resource-based theory in which it can be referred to the skills of individuals, groups, organizational routines, and interactions based that are difficult to be imitated (Itami, 1987). Thus, these capabilities

in resource-based view theory can be concluded as the key determinants to achieve sustainable rural tourism development.

Comparative Advantage Theory

Comparative advantage theory is applied when an organization has resources that are rare, valuable, difficult to duplicate, and non-substitutable that enables the organization to produce a market offering that has superior value and can be produced at a lower cost (Hunt & Morgan, 1995). In this study, comparative advantage in a destination exists when the visitors perceive that the destination provide superior value. In other words, sustainable rural tourism development namely, social, cultural, economic, and environmental sustainability are categorized as comparative advantage in a tourist destination. Therefore, comparative advantage in a destination is crucial to earn a market position in this highly competitive tourism industry.

Methodology

With the aim to generalise the findings on respondents who have been staying in rural tourism destinations namely, Kampung Annah Rais and Kampung Darul Islam Belimbing, Kuching, Sarawak, Malaysia for more than a year, the population of the present study consists of respondents who are currently staying in these rural tourism destination. Prior to the actual data collection, a pre-test was conducted in order to ascertain how well the questionnaire works (Hunt, Sparkman, & Wilcoz, 1982). The questionnaires were given to 7 respondents in Kampung Annah Rais to identify questions that may cause confusion to the local communities. As a result, some questions were reworded to suit the context of the local communities in these rural tourism destinations. A total of 180 questionnaires were distributed personally to the local communities who have been staying in these rural tourism destinations for more than a year. The selection of these respondents was based on convenient sampling method. Out of 180 questionnaires distributed, 133 (73.89%) were returned, and only 113 sets were usable.

The first section was designed to collect the personal and demographic profile of the respondents. Section 2 required the

respondents to rate 46 items on how local community involvement namely, participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism attempted to influence sustainable rural tourism development namely, social, cultural, economic, and environmental sustainability in these rural tourism destinations. This items were adapted from the work of Tosun (2006), Bachleitner and Zins (1999), Liao, Chang, Cheng, and Kuo (2004), Van Den Hooff, Vijvers, and De Ridder (2003), Boley and McGehee (2014), Van Niekerk and Saayman (2013), Davis, Allen, and Cosenza (1988), Delamere (2001), Tatoglu, Erdal, Ozgur, and Azakli (1998), and Dowling (1993), as shown in the Appendix.

The question items were modified to adapt the existing rural tourism in Kuching, Sarawak, Malaysia. Respondents were asked to rate their perception on participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism using the 7-point Likert scale with: 7 = strongly agree, 6 = agree, 5 = slightly agree, 4 = neither agree nor disagree, 3 = slightly disagree, 2 = disagree, and 1 = strongly disagree, for 24 items. On the other hand, respondents were asked to rate their perception on social, cultural, economic, and environmental sustainability in their community by using 5-point Likert scale with: 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree, for 22 items.

Findings

This section presents the main results of the study. To assess the research model developed in Figure 1, SmartPLS 2.0 (M3) or known as partial least squares (PLS) was applied to analyse the data collected. As shown in Figure 1, local communities' involvement namely, participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism are categorized as the independent variables whereas sustainable rural tourism development namely, social, cultural, economic, and environmental sustainability are grouped as the dependent variables. 200 re-samples were

Local Communities' Involvement

Sustainable Rural Tourism Development

Figure 1. Research model

used to generate the standard error of the estimate and t-values.

Assessment of the Measurement Model

When the relationships among the conceptual factors of interest and the underlying construct were measured, the assessment of measurement model was conducted (Halawi & McCarthy, 2008). Firstly, the confirmatory factor analysis (CFA) was conducted to examine the item reliability, convergent validity, and discriminant validity of the measurement scales and it was used to confirm the item's consistency to the respective construct in this study. All of the loadings were greater than the minimum cut off point of 0.5 (significant at $p < 0.01$) (Anderson & Gerbing, 1988; Bagozzi, Yi, & Philipps, 1991; Gefen & Straub, 2000), as shown in Table 1 and Table 2. Therefore, the internal consistency was achieved in this study. As shown in Table 2, out of the 46 items, 45 items were retained and 1 item namely, community knowledge about tourism 23 was discarded from the analyses due to loadings less than 0.50 as suggested by Hair, Anderson, Tatham, and Black (2006). All of the Average Variance Extracted (AVEs) are close to or exceeded 0.5 (Bagozzi & Yi, 1988). Values of average variance extracted provided

satisfactory results with the exception of cultural sustainability (0.477) and environmental sustainability (0.490), which had average variance extracted slightly below 0.5. However, past researchers posited that it is still acceptable for construct reliability (Dumbach, 2014; Carbonell & Rodriguez, 2006; Yli-Renko, Autio & Sapienza, 2001). The composite reliability (CRs) exceeded 0.7 (Gefen, Straub, & Boudreau, 2000) while the Cronbach alpha values 0.7 (Nunnally, 1978). Hence, we ensured convergent validity because all of the indicators load much higher on their hypothesized factor than on other factors, as indicated in Table 1 (Chin, 1998).

Moreover, the square root of the average variance extracted was compared in order to construct correlations and ensure discriminant validity. Most of the elements in principal diagonal are higher than the off-diagonal elements in their corresponding row and column, as indicated in Table 3 (Chin, 2010). Therefore, the measurement model was satisfactory in which there are evidences of adequate reliability, convergent validity, and discriminant validity. Next, we proceeded to test the hypotheses generated for this study.

Table 1. Loading and cross loading

	CK	CUL	ECO	EMP	ENV	KS	PDM	SOC
Community Knowledge about Tourism 18	0.796	0.473	0.562	0.567	0.522	0.501	0.446	0.539
Community Knowledge about Tourism 19	0.788	0.451	0.495	0.581	0.471	0.614	0.535	0.515
Community Knowledge about Tourism 20	0.553	0.277	0.316	0.458	0.302	0.376	0.343	0.405
Community Knowledge about Tourism 21	0.778	0.639	0.495	0.580	0.552	0.545	0.432	0.590
Community Knowledge about Tourism 22	0.710	0.556	0.646	0.579	0.392	0.532	0.460	0.559
Community Knowledge about Tourism 24	0.832	0.576	0.508	0.609	0.613	0.578	0.476	0.578
Cultural Sustainability 54	0.401	0.659	0.514	0.499	0.450	0.430	0.413	0.525
Cultural Sustainability 55	0.527	0.689	0.435	0.377	0.490	0.375	0.400	0.647
Cultural Sustainability 56	0.574	0.819	0.607	0.597	0.564	0.565	0.501	0.630
Cultural Sustainability 57	0.326	0.564	0.281	0.385	0.448	0.408	0.311	0.365
Cultural Sustainability 58	0.548	0.740	0.553	0.547	0.621	0.414	0.403	0.581
Cultural Sustainability 59	0.393	0.645	0.405	0.377	0.404	0.387	0.378	0.575
Economic Sustainability 60	0.495	0.519	0.786	0.446	0.424	0.348	0.347	0.616
Economic Sustainability 61	0.434	0.422	0.747	0.500	0.327	0.368	0.372	0.543
Economic Sustainability 62	0.577	0.528	0.824	0.531	0.456	0.480	0.488	0.680
Economic Sustainability 63	0.377	0.480	0.704	0.433	0.411	0.405	0.426	0.483
Economic Sustainability 64	0.624	0.609	0.689	0.569	0.660	0.490	0.457	0.676
Empowerment 11	0.732	0.671	0.625	0.852	0.614	0.694	0.539	0.674
Empowerment 12	0.676	0.619	0.595	0.861	0.452	0.664	0.516	0.580
Empowerment 13	0.724	0.598	0.616	0.856	0.542	0.730	0.586	0.624
Empowerment 14	0.589	0.483	0.509	0.839	0.342	0.643	0.487	0.494
Empowerment 15	0.456	0.463	0.469	0.742	0.269	0.530	0.603	0.453
Empowerment 16	0.371	0.330	0.279	0.601	0.173	0.480	0.557	0.340
Empowerment 17	0.490	0.505	0.497	0.749	0.280	0.574	0.588	0.530
Environmental Sustainability 65	0.401	0.505	0.473	0.231	0.594	0.240	0.260	0.466
Environmental Sustainability 66	0.540	0.569	0.512	0.411	0.802	0.423	0.350	0.573
Environmental Sustainability 67	0.395	0.365	0.368	0.331	0.669	0.328	0.392	0.453
Environmental Sustainability 68	0.417	0.483	0.292	0.332	0.764	0.320	0.251	0.417
Environmental Sustainability 69	0.482	0.591	0.502	0.463	0.649	0.434	0.315	0.463
Knowledge Sharing 6	0.602	0.524	0.484	0.697	0.524	0.894	0.641	0.487
Knowledge Sharing 7	0.603	0.574	0.460	0.681	0.495	0.876	0.567	0.509
Knowledge Sharing 8	0.573	0.475	0.437	0.616	0.278	0.811	0.591	0.417
Knowledge Sharing 9	0.660	0.587	0.585	0.746	0.477	0.936	0.664	0.548
Knowledge Sharing 10	0.686	0.601	0.527	0.746	0.452	0.910	0.624	0.573
Participation in Decision Making 1	0.520	0.338	0.321	0.412	0.415	0.433	0.641	0.482
Participation in Decision Making 2	0.341	0.362	0.403	0.513	0.212	0.396	0.691	0.374
Participation in Decision Making 3	0.545	0.544	0.564	0.584	0.454	0.631	0.854	0.536
Participation in Decision Making 4	0.415	0.460	0.400	0.513	0.303	0.559	0.792	0.478
Participation in Decision Making 5	0.385	0.443	0.364	0.530	0.244	0.535	0.721	0.338
Social Sustainability 48	0.603	0.545	0.529	0.469	0.507	0.458	0.468	0.730
Social Sustainability 49	0.592	0.720	0.554	0.481	0.699	0.412	0.411	0.758
Social Sustainability 50	0.433	0.540	0.556	0.503	0.312	0.386	0.427	0.698
Social Sustainability 51	0.569	0.637	0.817	0.569	0.544	0.499	0.538	0.797
Social Sustainability 52	0.402	0.509	0.565	0.528	0.323	0.371	0.400	0.709
Social Sustainability 53	0.567	0.638	0.584	0.517	0.620	0.429	0.436	0.770

Notes: CK=Community Knowledge about Tourism, CUL=Cultural Sustainability, ECO=Economic Sustainability, EMP=Empowerment, ENV=Environmental Sustainability, KS=Knowledge Sharing, PDM=Participation in Decision Making, SOC=Social Sustainability, SRTD=Sustainable Rural Tourism Development

Table 2. Results of Measurement Model, Model Constructs, and Reliability Test

Model Construct	Measurement Item	Loading	t-value	Cronbach's Coefficient Alpha	Number of Items	CR ^a	AVE ^b
Community Knowledge about Tourism				0.840	7(6)	0.883	0.560
	CK 18	0.796	15.384				
	CK 19	0.788	17.492				
	CK 20	0.553	4.936				
	CK 21	0.778	20.659				
	CK 22	0.710	11.921				
Cultural Sustainability	CK 24	0.832	22.248				
				0.777	6(6)	0.844	0.477
	CUL 54	0.659	7.654				
	CUL 55	0.689	6.555				
	CUL 56	0.819	24.255				
	CUL 57	0.564	5.533				
Economic Sustainability	CUL 58	0.740	11.334				
	CUL 59	0.645	7.957				
				0.807	5(5)	0.866	0.565
	ECO 60	0.786	17.301				
	ECO 61	0.747	12.861				
	ECO 62	0.824	22.010				
Empowerment	ECO 63	0.704	12.242				
	ECO 64	0.689	12.959				
				0.900	7(7)	0.920	0.625
	EMP 11	0.852	37.844				
	EMP 12	0.861	31.024				
	EMP 13	0.856	22.314				
Environmental Sustainability	EMP 14	0.839	24.550				
	EMP 15	0.742	12.638				
	EMP 16	0.601	7.223				
	EMP 17	0.749	14.642				
				0.735	5(5)	0.826	0.490
	ENV 65	0.594	6.273				
Knowledge Sharing	ENV 66	0.802	21.776				
	ENV 67	0.669	7.692				
	ENV 68	0.764	14.997				
	ENV 69	0.649	9.276				
				0.931	5(5)	0.948	0.786
	KS 6	0.894	36.722				
Participation in Decision Making	KS 7	0.876	34.132				
	KS 8	0.811	17.710				
	KS 9	0.936	80.113				
	KS 10	0.910	45.268				
				0.795	5(5)	0.860	0.553
	PDM 1	0.641	9.285				
Social Sustainability	PDM 2	0.691	8.720				
	PDM 3	0.854	32.407				
	PDM 4	0.792	17.255				
	PDM 5	0.721	13.772				
				0.839	6(6)	0.881	0.554
	SOC 48	0.730	12.845				
	SOC 49	0.758	18.520				
	SOC 50	0.698	10.144				
	SOC 51	0.797	18.873				
	SOC 52	0.709	9.947				
	SOC 53	0.770	15.568				

Final items numbers (initial numbers)

Note: ^aComposite Reliability (CR) = (square of the summation of the factor loadings) / ((square of the summation of the factor loadings) + (square of the summation of the error variances)) ^bAverage Variance Extracted (AVE) = (summation of the square of the factor loadings) / ((summation of the square of the factor loadings) + (summation of the error variance))

Note: CK=Community Knowledge about Tourism, CUL=Cultural Sustainability, ECO=Economic Sustainability, EMP=Empowerment, ENV=Environmental Sustainability, KS=Knowledge Sharing, PDM=Participation in Decision Making, SOC=Social Sustainability

Table 3. Discriminant Validity of Constructs

	CK	CUL	ECO	EMP	ENV	KS	PDC	SOC
Community Knowledge about Tourism	0.748							
Cultural Sustainability	0.680	0.691						
Economic Sustainability	0.684	0.690	0.752					
Empowerment	0.754	0.682	0.669	0.791				
Environmental Sustainability	0.647	0.726	0.622	0.516	0.700			
Knowledge Sharing	0.706	0.626	0.565	0.789	0.509	0.887		
Participation in Decision Making	0.601	0.586	0.563	0.687	0.451	0.696	0.744	
Social Sustainability	0.716	0.807	0.811	0.686	0.684	0.576	0.602	0.744

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations.

Note: CK=Community Knowledge about Tourism, CUL=Cultural Sustainability, ECO=Economic Sustainability, EMP=Empowerment, ENV=Environmental Sustainability, KS=Knowledge Sharing, PDM=Participation in Decision Making, SOC=Social Sustainability

Assessment of the Structural Model

Secondly, Figure 2 and Table 4 demonstrate the results of hypotheses testing. The results showed that three hypotheses were found to be significantly related to sustainable rural tourism development. The results have shown that three hypotheses, namely, participation in decision making (H1), empowerment (H3), and community knowledge about tourism (H4) were supported whereas, knowledge sharing (H2) were not supported.

Next, global fit measure (GoF) assessment was conducted to test the global validation of PLS model (Chin, 1998). We estimated the GoF

values (see Formula 1), which may serve as the cut-off values for global validation of PLS models. The GoF value of 0.548 (average R^2 was 0.522, average AVE was 0.576) exceeded the cut-off value of 0.36 for large effect sized of R^2 and this research model had performed well in comparison with the baseline values ($GoF_{small}=0.1$, $GoF_{medium}=0.25$, and $GoF_{large}=0.36$ for GoF) (Akter, D'Ambra, & Ray, 2011). Therefore, this indicated that the GoF value was adequate to support the validation of PLS model globally (Wetzels, Schroder, & Oppen, 2009).

$$GoF = \sqrt{AVE \times \bar{R}^2} \quad (1)$$

Figure 2. Research model with *t*-values

Note: PDM=Participation in Decision Making, KS=Knowledge Sharing, EMP=Empowerment, CK=Community Knowledge about Tourism, SOC=Social Sustainability, CUL=Cultural Sustainability, ECO=Economic Sustainability, ENV=Environmental Sustainability

Table 4: Path Coefficients and Hypothesis Testing

Hypothesis	Relationship	Beta Value	t-value	Supported
H1	Participation in decision making will have positive relationship on sustainable rural tourism development.			Partially Supported
H1a	Participation in decision making will have positive relationship on social sustainability.	0.216	2.368**	Supported
H1b	Participation in decision making will have positive relationship on cultural sustainability.	0.148	1.583	Not Supported
H1c	Participation in decision making will have positive relationship on economic sustainability.	0.155	1.675*	Supported
H1d	Participation in decision making will have positive relationship on environmental sustainability.	0.073	0.721	Not Supported
H2	Knowledge sharing will have positive relationship on sustainable rural tourism development.			Not Supported
H2a	Knowledge sharing will have positive relationship on social sustainability.	-0.131	1.064	Not Supported
H2b	Knowledge sharing will have positive relationship on cultural sustainability.	0.072	0.613	Not Supported
H2c	Knowledge sharing will have positive relationship on economic sustainability.	-0.085	0.687	Not Supported
H2d	Knowledge sharing will have positive relationship on environmental sustainability.	0.073	0.598	Not Supported
H3	Empowerment will have positive relationship on sustainable rural tourism development.			Partially Supported
H3a	Empowerment will have positive relationship on social sustainability.	0.300	2.703**	Supported
H3b	Empowerment will have positive relationship on cultural sustainability.	0.269	1.994*	Supported
H3c	Empowerment will have positive relationship on economic sustainability.	0.322	2.586**	Supported
H3d	Empowerment will have positive relationship on environmental sustainability.	-0.018	0.148	Not Supported
H4	Community knowledge about tourism will have positive relationship on sustainable rural tourism development.			Supported
H4a	Community knowledge about tourism will have positive relationship on social sustainability.	0.453	4.452**	Supported
H4b	Community knowledge about tourism will have positive relationship on cultural sustainability.	0.337	2.999**	Supported
H4c	Community knowledge about tourism will have positive relationship on economic sustainability.	0.407	3.796**	Supported
H4d	Community knowledge about tourism will have positive relationship on environmental sustainability.	0.566	4.697**	Supported

*p < 0.05, t-value greater than 1.645.

**p < 0.01, t-value greater than 2.33.

Discussion

Local community in tourism plays an important role in achieving long-term tourism development. Gunn and Var (2002) and Hall (2005) postulated that local community participation in tourism planning and in decision making will lead to long term social, cultural, economic, and environmental benefits to the community. Past researchers have highlighted

that local community is a socio-anthropological concept who is familiar with the local culture and environment which can impress the tourists and have significant impact on sustainable rural tourism development (Rid, Ezeuduji, Probstl-Haider, 2014; Hwang, Stewart, & Ko, 2012; Dorobantu & Nistoreanu, 2012; Ertuna & Kirbas, 2012; Thongma et al., 2011; Ruiz-Ballesteras, 2011; Hampton, 2005).

Past researches on sustainable rural tourism development had mainly focused on developed countries in Europe or North America, and there are not many in the Asian continent (Chaudhry & Tewari, 2010). Thus, this study investigates local communities' involvement on sustainable rural tourism development in Kampung Annah Rais and Kampung Darul Islam Belimbing, Kuching. The findings from this research study evidenced that local community's participation in decision making, empowerment, and community knowledge about tourism have great impact on achieving long term sustainable rural tourism development in these rural tourist destinations. However, findings indicated that knowledge sharing does not have positive relationship on sustainable rural tourism development.

Firstly, the resulting analysis for hypothesis one (H1) indicated that participation in decision making has a positive relationship on sustainable rural tourism development. Findings showed that participation in decision making has a positive relationship with social sustainability (H1a) and economic sustainability (H1c) and it is consistent with the findings of Murphy (2013) and Murphy (1985) that communities who participate in decision making process will have great influence on the communities' social lifestyle and economic development in a tourist destination. On the other hand, participation in decision making was not found to have positive relationships with cultural sustainability (H1b) and environmental sustainability (H1d). These findings contrasted with the findings of Hardy, Beeton, and Pearson (2002) that local communities' involvement in decision making process is the key element in sustaining the cultural products in a tourist destination. Besides, these findings also contrasted with the findings of Roseland (2012) that a community who have authority in the decision making process will ensure that the natural environment in a tourist destination is conserved and protected. As such, it is believed that there are some restrictions that hinder the local communities to participate in the decision making process when it is related to the cultural and environmental issues in Kampung Annah Rais and Kampung Darul Islam Belimbing. As stated by Tosun (2006),

there are tourism authorities who are opposed to the idea of local communities' involvement in rural tourism development. Thus, H1 was partially supported.

Surprisingly, hypothesis two (H2) showed that knowledge sharing was not found to have a positive relationship on sustainable rural tourism development. Findings indicated that knowledge sharing does not have positive relationships with social (H2a), cultural (H2b), economic (H2c), and environmental (H2d) sustainability. The findings contrasted with the findings by Nadkarni (2008) that community who share their knowledge with tourism stakeholders will increase the stakeholder's awareness towards the social lifestyle and traditional way of life of the local communities. Besides, the results contrasted with the findings by Di Castri and Balaji (2002) that effective knowledge sharing will bring economic benefits to the tourist destination. Moreover, the findings also contrasted with the findings by Camarinha-Matos and Afsarmanesh (2006) that knowledge sharing will ensure that the stakeholders will cooperate to achieve tourism development and environmental protection goals. It is believed that these contrasted results might be due to weak or poor relationship among the tourism stakeholders which reduces the level of cooperation to achieve social, cultural, economic, and environmental sustainability in both Kampung Annah Rais and Kampung Darul Islam Belimbing. This is supported by Hansen (1999) that the existence of a strong or weak relationship among the members will determine the effectiveness of knowledge sharing. Therefore, H2 was not supported.

Next, the resulting analysis for hypothesis three (H3) indicated that empowerment has a positive relationship on sustainable rural tourism development. Findings indicated that empowerment has positive relationships with social (H3a), cultural (H3b), and economic (H3c) sustainability. These findings were in line with the findings of Cole (2006) that empowerment is positively associated with social sustainability. Local communities could improve their quality of life when they are empowered in tourism development. Besides, the findings were congruent with the findings of

Goodwin and Santilli (2009) that community empowerment is positively related to cultural sustainability in a tourist destination. Local communities who are in control of tourism development will ensure that the cultural integrity in the community are maintained and preserved. Furthermore, the findings were also congruent with the findings of Sebele (2010) that empowerment is positively related to livelihoods and economic development in a community. Locals who take control over tourism development will have a better standard of living in the community. Interestingly, findings showed that empowerment do not have a positive relationship with environmental sustainability (H3d). These findings contrasted with the findings of Dwyer (2005) that community empowerment will lead to environmental sustainability. It is believed that this contrasted result was due to the lack of trust between the local communities and tourism authorities in Kampung Annah Rais and Kampung Darul Islam Belimbing. Tourism authorities might not give full authority to the local communities to deal with the environmental issues in these tourist destinations. Therefore, H3 was partially supported.

Lastly, hypothesis four (H4) showed that there is a positive relationship between community knowledge about tourism and sustainable rural tourism development. As shown in Table 4, community knowledge about tourism has a positive relationship with social (H4a), cultural (H4b), economic (H4c), and environmental (H4d) sustainability. These findings were in line with the findings by Nadkarni (2008) that community knowledge about tourism is the capability that can be used to protect the social fabric of a tourist destination and it is important to protect the tradition, beliefs, and norms in a community. Moreover, this finding were congruent with the findings of Sebele (2010) that local communities who are aware of the cost and benefits of tourism will utilise the resources wisely and in turn sustain the local economy. Besides, the findings were in line with the findings of Jamal and Stronza (2009) that environmental protection, conservation, and sustainable practices depend on the local knowledge about tourism. Community who have the knowledge about tourism will not be

taken advantage by the tourism authorities who want to exploit the land and resources of the community. Thus, H4 was supported.

Implications

This research has a number of theoretical and practical implications for both scholars and practitioners, particularly in the domain of sustainable rural tourism development. Firstly, this study represents the theoretical or empirical research about the involvement of the local communities in sustainable rural tourism development. In the past, there have been limited empirical researches on local communities' involvement on achieving social, cultural, economic, and environmental sustainability, more so from the communities' perspective. Hence, the framework of this research provides a better understanding of how local communities' involvement namely, participation in decision making, knowledge sharing, empowerment, and community knowledge about tourism will have a tremendous impact on sustainable rural tourism development. Secondly, this study provide useful guidelines for the scholars who are interested on the study of sustainable rural tourism development. Without any doubt, the research on sustainable rural tourism development from the communities' perspectives is still limited in its ability to provide an unequivocal guideline.

It is believed that local communities' involvement in rural tourism development is needed because it is the key to achieve sustainable rural tourism development. This research would have added value to the literature on sustainable rural tourism development, especially in Sarawak settings since there are limited literatures on similar setting. Moreover, this study enables tourism stakeholders to recognize the importance of involving local communities in rural tourism development. As such, this would have a significant contribution to sustainable rural tourism development given the fact that if tourism stakeholders realise the importance of local communities' involvement, they would achieve better performance and in turn achieve sustainable rural tourism development.

Limitation and Direction for Future Research

There are restrictions and limitations during the development and implementation of this research. Firstly, the sample size is small to generalize the results to other rural tourist destinations. However, the results have served as a basic research for future discussion on local communities' involvement and sustainable rural tourism development. Secondly, this study was cross-sectional in which the data were obtained in a single period of time and can only provide a static perspective on fit. Next, the setting of this study was conducted in the rural tourism of Kuching, Sarawak, Malaysia. For further studies, it would be interesting to test the variables in other rural regions to see if the reliability and validity persist.

Conclusion

It is believed that the findings have provided a compelling evidence for the importance of local communities' involvement on sustainable rural tourism development. Although local communities' involvement have been studied in previous researches, no known researches have been found to empirically study specifically on each of the dimensions of sustainable rural tourism development namely, social, cultural, economic, and environmental sustainability in rural tourism destinations in Kuching, Sarawak context. As such, it is worth to investigate the impact of local communities' involvement on sustainable rural tourism development in Kuching, Sarawak. This study would evoke tourism stakeholders about the importance of local communities' involvement in achieving sustainable rural tourism development. Besides, this research claims to identify the existence of local communities' involvement on sustainable rural tourism development from the communities' point of view. Results have shown that local communities' participation in decision making, empowerment, and community knowledge about tourism are the important elements in achieving sustainability in rural tourism development. This is so because local communities are the residents in these rural tourism destinations and they have the knowledge about their own community to make decisions which will benefit the destinations. Besides, they are familiar with their own social,

culture, and environment and this knowledge can be used to attract the tourists and in turn sustain the social, cultural, economic, and environmental development in these tourist destinations. Further, results also indicated that knowledge sharing do not have a positive relationship on sustainable rural tourism development. As such, knowledge sharing should be encouraged to improve the information flow among the tourism stakeholders and a good relationship between the local communities and tourism stakeholder is important to achieve effective knowledge sharing in both Kampung Annah Rais and Kampung Darul Islam Belimbing. Therefore, since rural tourism is favourable and highly demanded among tourists, it is crucial to understand the importance of local communities' involvement in achieving sustainable rural tourism development.

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Appendix

Items of the Questionnaire

Items of Participation in Decision Making (PDM)

PDM 1	I am informed about the tourism policies in my community.
PDM 2	I have a voice in decision making process of tourism development in my community.
PDM 3	My opinion are sought when it is about tourism development project in my community.
PDM 4	I am consulted when it is about tourism development issues such as the selection of a local government agencies who will decide on tourism development issues in my community.
PDM 5	I am actively involved in decision making process about tourism affairs in my community.

Source: Tosun (2006), Bachleitner & Zins (1999)

Items of Knowledge Sharing (KS)

KS 6	It is my pleasure to share my knowledge with the tourism stakeholders (e.g. tourist, government and other local communities) voluntarily.
KS 7	I will share my knowledge with the tourism stakeholders (e.g. tourist, government and other local communities) unconditionally.
KS 8	When I have learned something new, I see that the tourism stakeholders (e.g. tourist, government and other local communities) are able to learn it as well.
KS 9	I share my information with the tourism stakeholders (e.g. tourist, government and other local communities) in my community.
KS 10	I share my skills with the tourism stakeholders (e.g. tourist, government and other local communities) in my community.

Source: Liao, Chang, Cheng, Kuo (2004); Van Den Hooff, Vijvers, De Ridder (2003)

Items of Empowerment (EMP)

EMP 11	Tourism makes me proud to be the resident in my community.
EMP 12	Tourism makes me want to work to keep my community special.
EMP 13	Tourism in my community makes me feel more connected to my community.
EMP 14	Tourism in my community provide ways for me to get involved in my community.
EMP 15	I feel like I have a voice in my community's tourism development decisions.
EMP 16	I feel like I have access to the decision making process when it comes to tourism in my community.
EMP 17	I feel that my vote makes a difference in how tourism is developed in my community.

Source: Boley & McGehee (2014)

Items of Community Knowledge about Tourism (CK)

CK 18	Tourism industry in my area is an economic booster for my country.
CK 19	Tourism is visiting friends and relatives in another town.
CK 20	Eco tourism is tourism in harmony with the environment.
CK 21	I know a lot of tourist attractions in my area.
CK 22	Tourism industry provides many worthwhile employment opportunities.
CK 23	Tourism has caused taxes to increase for Sarawak residents because of the extra police needs, roads, and so on.
CK 24	The advertising spent by the area to attract tourists to my community is a good investment.

Source: Van Niekerk & Saayman (2013); Davis, Allen, & Cosenza (1988)

Items of Social Sustainability (SOC)

SOC 48	Tourism in my community enhanced community identity.
SOC 49	Tourism enhanced the image of my community.
SOC 50	Tourism enables me to experience new activities.
SOC 51	Tourism improved quality of life in my community.
SOC 52	Tourism provides opportunity for me to learn new things.
SOC 53	Tourism enables my community to gain positive recognition.

Source: Delamere (2001)

Items of Cultural Sustainability (CUL)

CUL 54	Tourism provides opportunity for me to learn other people's cultures.
CUL 55	Tourism provides opportunity to restore and protect historical structures in my community.
CUL 56	Tourism increase people's awareness and recognition about the local culture and heritage in my community.
CUL 57	The variety of cultural activities in my community is unique and special.
CUL 58	Tourism provides many varieties of cultural facilities and activities in my community.
CUL 59	Tourism provides many variety of entertainment in my community.

Source: Tatoglu, Erdal, Ozgur, Azakli (1998)

Items of Economic Sustainability (ECO)

ECO 60	Tourism increases the number of jobs in my community.
ECO 61	Tourism increases my personal income.
ECO 62	Tourism increases my standard of living.
ECO 63	Tourism provides variety of shopping facilities in my community.
ECO 64	Tourism generate revenue for the local economy.

Source: Tatoglu, Erdal, Ozgur, Azakli (1998)

Items of Environmental Sustainability (ENV)

ENV 65	Tourism should be integrated with conservation and land management in my community.
ENV 66	Tourism development should be encouraged not to have conflict with the environment.
ENV 67	Tourism does not harm the environment.
ENV 68	The environment needs greater protection.
ENV 69	The economic gains of tourism are just as important as the protection of the environment.

Source: Dowling (1993)