So close yet so far: Economic

accessibility of Mount Kinabalu

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Meiji University, Japan

Christy Bidder*

chris822@sabah.uitm.edu.my

Reni Cacillia Polus

Universiti Teknologi MARA Sabah, Malaysia

Universiti Teknologi MARA Sarawak, Malaysia

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Abstract

This study examined the economic accessibility of Mount Kinabalu perceived by the local people of Sabah. Specifically, this study i) examined the concept of willingness to pay (WTP) in light of its association with perceived fee fairness, spending support and place attachment; and ii) analysed the economic and noneconomic variables that could potentially pose constraints for the local people to climb Mount Kinabalu and; iii) proved that the inflated total climbing fee had posed a financial barrier for them to access their heritage mountain. The results showed that income is not a significant antecedent of local people's WTP to climb Mount Kinabalu, and the new fee structure itself does not pose a huge barrier for them to access the mountain. The dramatic drop in the number of local climbers following the fee increases is plausibly attributable to their negative perception of fee fairness which lowers their WTP. Additionally, they are more constrained by intrapersonal reasons such as the amount of physical demand required, concerns about health and fitness, and risks involved in climbing than interpersonal or structural factors. When it comes to their spending preferences, they are more supportive of spending on a collective cause (i.e. environmental protection) than an individual cause (i.e. improvement of facilities and services). In sum, cost-related factor does not make Mount Kinabalu less accessible for the local people. What is influencing their WTP is their perception of fee fairness. This study concludes with some recommendations for the management.

Keywords:

Willingness to Pay, Fee Fairness, Spending Support, Place Identity, Mount Kinabalu

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1 Introduction

For some people, the implementation of user fees in public parks was not justified as public parks claimed no ownership and that it excluded certain segments of the population, particularly individuals or groups who were economically disadvantaged. However, for some other people, the imposition was legitimate and fair, especially when it could be a useful tool for managing visitors, and thus controlling their behaviours and the consequent impacts on the environment (Chung et al., 2011; More & Stevens, 2000). When a site is subject to entry fees, the fees themselves can become significant barriers (World Tourism Organization, 2004). Often, fees are determined to accommodate the visitors' purses. In some places, high fees may exclude residents (World Tourism Organization, 2004). Previous studies have identified a number of factors that influence willingness to pay (WTP) such as environmental concern, past payment history, certain socio-economic characteristics, attitude toward fee policy, perception of price fairness, spending support, and more recently, place attachment (Chung et al., 2011; Reynisdottir, Song & Agrusa, 2008; Schroder & Mieg, 2008; Kyle, Graefe & Absher, 2003; Ajzen, Rosenthal & Brown, 2000; Vogt & Williams, 1999; Laarman and Gregersen, 1996; Mitchell & Carson, 1989).

Although there is a considerable amount of studies that have identified the antecedents of WTP, only a few have made an attempt to disclose their relationship (Chung at al., 2011). When the rates of accommodations on Mount Kinabalu were significantly increased, many parties including prospective climbers, repeat climbers as well as local and foreign tour operators pointed out that the fee surge had posed a huge financial barrier for the local people to access Mount Kinabalu. The number of local climbers declined and significantly exceeded by the number of other Malaysian and foreign climbers.

Was cost the primary barrier for the local people of Sabah? How did they perceive the new climbing fee structure? How much were they willing to pay to access the mountain? To answer these questions, this study was undertaken to assess the economic accessibility of Mount Kinabalu as perceived by the local people of Sabah. Specifically, this study i) confirmed the inflated total climbing fee posed a financial barrier for them to access their heritage mountain; ii) examined the concept of willingness to pay (WTP) in light of its association with perceived fee fairness, spending support and place attachment; and iii) analysed the economic and non-economic variables that could potentially pose constraints for the local people to climb Mount Kinabalu.

2 Literature Review

2.1 Willingness to pay (WTP)

There is extensive research on WTP for a broad range of outdoor recreation facilities (Reynisdottir et al., 2008). It has often been used to make an estimation of the value of non-material goods such as environmental improvement and natural attractions (Reynisdottir et al., 2008; Mmopelwa, Kgathi & Molefhe, 2007). As stated by Reynisdottir et al. (2008), rational choice and utility maximization are the presumptions that form the foundation of WTP for a non-market good. It represents the economic value that individuals place on attractions (Tisdell, 2006). Previous studies have identified a host of factors that impact WTP. Apart from that, several studies have analysed the relationship between WTP and certain socio-demographic characteristics such as age, education, nationality and income. Bowker, Cordell, and Johnson (1999) discovered that highly educated individuals and younger people have the tendency to be more supportive of paying user fees. Also, Schroeder and Louviere (1999) revealed that individuals who have travelled a long distance to a site are more willing to pay to enter the site. The impact of income on WTP has been widely debated (Reynisdottir et al., 2008), although most studies have argued that user fees work against low-income individuals, who may be discouraged to visit fee-paying attractions and are more sensitive to price changes than high-income individuals (Reynisdottir et al., 2008; More & Stevens, 2000).

The amount that visitors are willing to pay is also significantly contingent upon the attributes or qualities of a site. Laarman and Gregersen (1996) pointed out that places that possess rare or scarce attributes or qualities have a higher level of WTP in comparison to common tourist destinations. Meanwhile, Clawson and Knetsch (1966) indicated that places with a long-haul travel and outstanding scenic or recreational opportunities tend to create less-price-sensitive demands. Additionally, as discovered by Laarman and Gregersen (1996), the amount of prior payment that consumers have made affects the amount of current payment they are willing to pay.

On the other hand, WTP is also influenced by visitors' perception of price fairness (Chung, et al., 2011; Mitchell & Carson, 1989). Xia, Monroe, and Cox (2004) defined the concept as 'a consumer's assessment and associated emotions of whether the difference or lack of difference, between a seller's price and the price of a comparative other party is reasonable, acceptable or justifiable.' There are two categories of price fairness namely 1) distributive fairness that uses equity, equality and/or needs to base perception of fee outcomes, and 2) procedural fairness that focuses on the process by which fees are determined (Xia et al., 2004; Lind & Tyler, 1988; Wicks & Crompton, 1986). When unfair fees are perceived, considerable hostility and displacement arise (McCarville, Reiling & White, 1996). In terms of the association between WTP and perception of price fairness, previous studies have shown that the two variables are positively correlated, in which visitors would have a higher level of willingness to pay if

and when they think the price or fee to be fair or just (Chung et al., 2011; Schroder & Mieg, 2008; Ajzen et al., 2000).

Another concept that is closely related to WTP and implementation of user fees is spending support. In general, it is about how supportive visitors are with the imposition of user fees and consequently their WTP (Chung et al., 2011). Three commonly cited predictors of spending support are fee purpose, the perception of fee benefits and preferences for spending (Kyle et al., 2003; Williams, Vogt & Vitterson, 1999; Vogt & Williams, 1999). Those studies have illustrated that spending support is positively correlated with all those variables. However, as discovered by Vogt & Williams (1999), visitors would be more supportive of user fees if the purpose of implementation was for environmental protection and education than if it was for improvement of visitor facilities and services. Their finding corresponds to the finding reported by Reynisdottir et al. (2008) that visitors' attitude toward environmental protection positively affects their WTP, that is, they were more willing to pay an entrance fee if the money would be used to protect and improve the site.

Place attachment has also been studied as a factor impacting WTP (Kyle et al., 2003; Chung et al., 2011). The relationship between place attachment and WTP started to gain attention in the 1990s when Williams and associates investigated the association in the Desolation Wilderness in California, U.S. Williams and Roggenbuck (1989), as cited in Kyle et al. (2003), introduced two terms related to place attachment namely place dependent (functional dimension of the attachment) and place identity (emotional dimension of the attachment). Williams and Watson (1998), as cited in Kyle et al. (2003), discovered a positive relationship between place dependent and WTP, and a negative relationship between place identity and WTP. Kyle et al. (2003) pointed out that place identity had a greater impact on fee attitudes, and that only place identity was a significant moderator in the relationship between fee attitudes and spending preferences. Their findings were also supported by Chung et al. (2011) who studied perceived price fairness, user fee policy and WTP among visitors to a national forest in the southeast U.S. Reynisdottir et al. (2008) observed that number of prior visits negatively affects WTP as seasoned users feel a sense of ownership toward the site.

2.2 Constraints to Outdoor recreation

According to Jackson (1991), constraints can be defined as elements that limit the formation of leisure preferences and inhibit or prohibit participation and enjoyment in leisure. Crawford and Godbey (1991) introduced two categories of constraints namely intrapersonal (i.e. stress, perceptions of safety and crowding, anxiety, the level of skills, health, disability, lack of awareness and lack of interest) and interpersonal (i.e. lack of appropriate partners and lack of family support). Intrapersonal constraints are seen as the most influential factors because they directly influence an individual's leisure preference (Crawford & Godbey, 1991). Furthermore, previous studies have shown that factors such as isolation regarding accessibility, lack of information, lack of skills, lack of

money and time may influence participation in leisure activity (Nadirova & Jackson, 2000). Meanwhile, Walker and Virden (2005) expanded the category of structural constraints unique to the study of outdoor recreation. They presented four new divisions of structural constraints: i) social environment structural constraints, ii) natural environment structural constraints, iii) territorial structural constraints, and iv) institutional, structural constraints. Some studies have shown that constraints are closely linked to certain demographic factors such as income, age and race/ethnicity (Lawton & Weaver, 2008; Ghimire et al., 2014). People with low incomes perceive more constraints than people with high incomes. Age could limit physical activity participation (Shores et al. 2007).

A recent study by Ghimire et al. (2014) indicated that different constraint factors might be perceived by different age groups. They reported that health limitations and concern over personal safety were more likely to constrain older adults from participating outdoor recreation while young people were likely to be constrained by factors such as financial limitations, family commitments and lack of time due to long working hours. Finally, constraints to recreation may also be perceived differently by race or ethnicity (Shores et al., 2007; Ghimire et al., 2014). Shores et al. (2007) indicated that ethnic and racial minorities experience more constraints than non-minorities. They further mentioned that the minorities were constrained by factors about transportation, economic, fear of crime and lack of knowledge. The socio-economic status of the minorities, especially the rural dwellers, perceived time and money to be their major constraints to outdoor recreation (Ghimire et al., 2014).

3 Methodology

The previous and present climbing fee structures were obtained from the park management. An online questionnaire was developed in order to achieve the research objectives. The sample of the study was the local residents of Sabah. The questionnaire consisted of five sections: section A dealt with socio-demographic characteristics and past payment of the respondents; section B analysed the respondents' perceived fee fairness, spending support and WTP; section C examined the respondents' place identity (place dependent was excluded because, as discovered by Kyle et al. (2003), only place identity was a significant moderator in the relationship between fee attitudes and spending preferences); section D asked respondents about their possible constraints to climbing Mount Kinabalu; and section E provided space for respondents to add any additional comments, concerns and/or suggestions that they might wish to share.

The questionnaire was devised in both the Malay and English languages to ensure the respondents understood the questions or statements. Snowball sampling method was employed by which the researchers emailed the questionnaire link to the initial subjects, and asked for assistance from those subjects to share the link with their acquaintances. A total number of 239 people completed the online questionnaire; 47 were rejected as they did not identify themselves as the local people of Sabah. Data analysis for the 192 respondents was done using the Statistical Package for Social Sciences (SPSS) version 20 for the descriptive and logistic regression tests needed to answer the study's research questions.

4 Findings

4.1 Respondents' profile, past climb and willingness to pay

Frequencies were obtained on the respondents' demographic characteristics, past climb, and the amount that they were willing to pay to climb Mount Kinabalu. Table 1 shows the Respondents' profile, past climbing, and WTP.

ltem		%	ltem		%
Gender	Male	30.7	Education	No formal education completed	1.0
	Female	69.3		High school, diploma or equivalent	39.1
Age	15 – 24	32.8		Technical or vocational school	1.6
	25 – 34	51.6		Some college	7.3
	35 – 44	11.5		Bachelor's Degree	39.6
	45 – 54	3.1		Master's Degree	10.9
	55 – 64	1.0		PhD	.5
Income	499 or <	24.7	Ethnicity	Malay	18.1
	500 – 999	12.6		Chinese	3.2
	1000 – 1499	18.4		Kadazandusun	70.2
	1500 – 1999	8.9		Bajau	4.8
	2000 – 2499	5.8		Murut	3.7
	2500 – 2999	5.8	Climb Moun	t Kinabalu Yes	28.1
	3000 – 3499	3.2	before 2005	No	71.9
	3500 – 3999	3.7	WTP	Less than 200	47.9
	4000 – 4999	7.8	amount	200 – 249	23.4
	5000 or >	8.9	(MYR)	250 – 299	16.1
				300 – 349	3.6
				350 – 399	3.6
				400 – 499	3.1
				500 or more	2.1

Table 1. Respondents' profile, past climbing and WTP (N = 192)

As shown in Table 1, more than half of the respondents were female (69.30%). Most of them were within the younger age group of 15 - 34 (84.4%). In terms of income, slightly over half of the respondents indicated earning monthly income ranging between MYR1000 and MYR4999 (53.6%). More than a quarter of them (37.3%) fell below the minimum wage or barely made it above the minimum wage. Almost all of the respondents had some form of formal education (99%), and over half had a tertiary level

of education (51%). With respect to ethnicity, there were more native respondents (Kadazandusun, Bajau, and Murut) (78.7%) than the non-natives (Malay and Chinese) (21.3%), with a vast majority of them constituted the Kadazandusun (70.2%), the largest indigenous group in Sabah. Most of the respondents had not climbed Mount Kinabalu before the fee increase in 2005 (71.9%). With regards to the amount that they were willing to pay to climb Mount Kinabalu, almost half of the respondents (47.9%) indicated an amount of less than MYR200. Approximately 40% of them were willing to pay between MYR200 and MYR300. Only a handful was willing to pay over MYR300 (12.4%).

4.2 Perceived fee fairness, spending support and place identity

The reliability test was performed on all the scale items. As shown in Table 2, the Cronbach's alpha coefficients for perceived fee fairness, spending support, and place identity were 0.752, 0.900 and 0.817 respectively, indicating a high level of internal consistency for the scale with the chosen sample.

Item	α	M^{a}	SD
Perceived fee fairness	.752		
Overall, I think the present climbing fee structures are reasonable.		3.08	.940
I think the discounted rate for local people of Sabah is fair.		3.35	1.161
I think the climbing fees for other Malaysians and foreigners are		3.34	1.081
fair.			
Spending support	.900		
I am more supportive of Mount Kinabalu climbing fees if part of the money is used for the improvement of climber facilities and		4.15	.906
services.			
I am more supportive of Mount Kinabalu climbing fees if part of the		4.35	.839
money is used for protection of Mount Kinabalu environment.			
I am more supportive of Mount Kinabalu climbing fees if part of the		4.19	.932
money is used for the enhancement of Mount Kinabalu			
environmental education and interpretation.			
Place identity	.817		
I am very attached to Mount Kinabalu.		4.65	.696
I feel a sense of belonging to Mount Kinabalu.		4.37	.897
Mount Kinabalu is part of my heritage.		4.51	.734
Mount Kinabalu means more to me than any other mountain I can		4.22	.899
think of.			

Table 2. Perceived fee fairness, spending support and place attachment

^aThe items were measured on a 5-point Likert scale where 1 – strongly disagree through 5 – strongly agree.

Descriptive analysis was done to obtain the mean scores and standard deviations for these three variable groups. The mean scores of perceived fee fairness statements ranged between 3.00 and 3.50 indicating that the respondents did not have a positive

perception of fairness for the present Mount Kinabalu climbing fee structures, both for locals and non-locals. With regards to spending support, environmental protection had the highest mean score of 4.35, followed by environmental education (4.19) and improvement of facilities and services (4.15). With the mean scores ranging between 4.00 and 5.00, the respondents indicated a rather high level of agreement with the statements related to place identity.

4.3 Associations between willingness to pay, income, prior climb, perceived fee fairness, spending support and place identity

A logistic regression analysis was conducted to predict WTP using income, past climb (before the price increase), perceived fee fairness, place identity and spending support as the predictors. Table 3 shows the multiple regression analysis result between willingness to pay with income; prior climb; perceived fee fairness; place identity and spending support.

ltem	В	S.E.	Wald	Sig.	Exp (B)	95.0% C EXP(B)	.I. for
						Lower	Upper
Income	.405	.348	1.349	.245	1.499	.757	2.967
Prior climb	.149	.386	.150	.699	1.161	.545	2.475
Perceived fee fairness	1.135	.240	22.440	.000	3.110	1.945	4.974
Place identity	294	.297	.986	.321	.745	.417	1.332
Spending support							
Facilities improvement	171	.277	.382	.537	.843	.490	1.449
Environmental protection	.368	.392	.882	.348	1.445	.670	3.115
Environmental education	285	.352	.657	.418	.752	.377	1.499
Chi Square	35.435	, df = 8,	P <.0005				
Nagelkerke Pseudo R-Square	.363						
Hosmer-Lemeshow Test	P = .26	4					

Table 3. Associations between willingness to pay with income; prior climb; perceived
fee fairness; place identity and spending support.

As shown in Table 3, the model was quite a good fit (chi-square = 35.435, P < .0005 with df = 8). For the Hosmer-Lemeshow Goodness of Fit test, the chi-square value was .264, which is larger than .05, therefore indicating support for the model. Perceived fee fairness was the only variable that contributed significantly to the predictive ability of the model (P = .000). Thus, it could be said that the major factor influencing the local people's WTP was their perception of whether the climbing fee structure was fair or unfair. Income, prior climb, place identity, and spending support did not contribute significantly to the model. Four variables were positively correlated with WTP namely income (.405), prior climb (.149), perceived fee fairness (1.135) and spending support

for environmental protection (.368). Three variables were negatively correlated with WTP namely place identity (-.294), spending support for facilities improvement (-.171) and spending support for environmental education (-.285). These three factors also had odds ratios of less than 1 (.745, .843 and .752 respectively), thus further supporting the negative correlations between them and WTP. Additionally, the odds of having a higher level of WTP were three times higher for respondents who expressed a positive perception of price fairness than for those who indicated otherwise.

4.4 Perceived constraints to climbing Mount Kinabalu

As shown in Table 4, all the dimensions of constraint measured suggested rather high-reliability coefficients (.799, .702 and .705 respectively). Descriptive analysis was conducted to obtain the mean scores and standard deviations. Table below also shows that the respondents were mostly constrained by intrapersonal factors (physically demanding, concerns about health and fitness, and risk involved in climbing, with the mean scores of 3.83, 3.63 and 3.29 respectively). While cost is one of the top five reasons (M = 3.15), it is not the primary cause of the decline in the number of local climbers. With the mean scores lower than 3.00, interpersonal factors did not affect significantly constraint local people from climbing Mount Kinabalu.

Item ^a	А	Mean ^b	SD
Intrapersonal	.799		
The climb is too physically demanding		3.83	1.042
I am concerned about my health and physical fitness		3.63	1.049
The climb is risky		3.29	1.030
I am not interested		1.68	.794
Interpersonal	.702		
I do have a companion		2.66	1.230
My family and friends are not interested in climbing		2.26	1.044
Structural	.705		
The climbing fees are too costly		3.15	1.139
It is difficult to get a confirmed booking		3.16	1.142
I have no time to go for this activity		2.96	1.062
Family commitments keep me from going		2.65	1.099
I do not have sufficient information		2.57	1.038

Table 4. Perceived constraints to climbing Mount Kinabalu

5 Discussion

The economic barrier to climbing Mount Kinabalu was analysed regarding the cost of access expressed in hours of local wages as suggested by World Tourism Organization

(2004). Table 5 shows the comparison of pre-2007 and present Mount Kinabalu climbing fee structures (in MYR).

IVITR)					
Item	Previous	Present fee structure	Present fee	Present fee	
	fee	(for local people of	structure (for	structure (for	
	structure	Sabah- limited to 25	other	non-	
	(for all	persons daily)	Malaysians)	Malaysians)	
	Malaysians)				
Accommodation	30.00	80.00*	436.00*	670.00*	
Conservation fee	3.00	3.00	3.00	15.00	
Climbing permit	30.00	30.00	30.00	100.00	
Insurance	7.00	7.00	7.00	7.00	
Guide fee	128.00	150.00	150.00	150.00	
Total	198.00	270.00	626.00	942.00	

Table 5. Comparison of pre-2007 and present Mount Kinabalu climbing fee structures (in MYR)

*Rate includes 5 meals.

The current monthly minimum wage in Sabah is MYR800.00, giving the average minimum hourly rate of MYR3.42 (26 working days per month, 9 hours per day). Before the surge in accommodation rates, it took approximately 58 hours of work for the local people of Sabah to be able to pay the total climbing fee. The discounted climbing fee offered exclusively to them by Sabah Parks (the public agency in charge of all state parks in Sabah) allows them to pay significantly less compared to other Malaysian and foreign climbers as indicated in Table 5.

To translate the discounted rate into cost of access expressed in hours of local wages, it requires about 79 hours of work, representing a surge of about 37% from the previous climbing fee structure. Since the discounted rate operates on a 25-local-persons-daily quota, the race to wrangle a spot within that rate is highly competitive. On average, the uptake ratio of spots for local people is approximately 96% (calculated from personal correspondence with Sabah Parks on 12 April 2016). This has pushed many local people to opt for the fee structure designed for other Malaysians or wait extensively for the next available 'local people' spots. It takes roughly 184 hours of work for the local people of Sabah to be able to pay for the other-Malaysians climbing package, representing a drastic increase of about 132%.

Many of the local people of Sabah indicate that they are willing to pay an amount not exceeding MYR300, an amount that only the discounted rate can offer. Bidder and Polus (2014b) reported that local people of Sabah indicated less-than-MYR200 as the amount that they thought they should pay to climb Mount Kinabalu. A comparison of the price they would be willing to pay and the price they think they should pay shows agreement with the findings of previous studies (such as Kyle et al., 2002) that have demonstrated that individuals are often likely to be willing to pay an amount that is higher than the amount they think they should be paying.

An analysis of the factors influencing local people's WTP indicated that income does not play a significant role in the decision. Despite low-income, individuals may still be willing to pay the fees to climb their heritage mountain. In addition, high income is not a guarantee that individuals will be willing to pay to climb Mount Kinabalu. What is influencing their WTP is their perception of fee fairness or unfairness. The local people of Sabah will be willing to pay if they perceive the fees to be fair. Unfortunately, as shown in Table 2, they do not have a real fee fairness, thus explaining their low WTP to climb Mount Kinabalu. This can be a partial explanation for the very low number of local climbers in comparison to the number of other Malaysian and foreign climbers. The low number is not due to low income, but rather due to the negatively perceived fee fairness.

The finding does not support the findings reported by some previous researchers (such as Reynisdottir et al., 2008; More & Stevens, 2000) who have indicated that lowincome individuals may be discouraged to visit fee-paying attractions and are more sensitive to price changes than high-income individuals. While that may be true in many circumstances, it may not always hold true when the question of price/fee fairness or unfairness is factored in. This finding also confirms the previous findings that visitors would have a higher level of WTP if and when they think the price/fee is fair (e.g. Chung, et al., 2011; Schroder & Mieg, 2008; Ajzen, Rosenthal & Brown, 2000). Additionally, as pointed out by McCarville, Reiling, and White (1996), when unfair fees are perceived, considerable hostility and displacement arise. This may partially explain the anger and hostility expressed by the local people of Sabah toward Sutera Sanctuary Lodges (the sole private company appointed to take charge of the accommodation and catering facilities in Kinabalu Park) when the accommodation rates were dramatically increased (New Sabah Times, 2009; The Star, 2009).

The study also showed that the local people who have climbed Mount Kinabalu prior to the increased accommodation rates are more willing to pay to climb the mountain again. This finding contradicts with Reynisdottir et al.' (2008) observation that a number of prior visits negatively affects WTP as seasoned users feel a sense of ownership toward the site. Within the context of Mount Kinabalu, the contradiction may be partially explained by a positive prior climbing experience (hence the desire for a repeat climb). Those who have not had a previous climbing experience may not be able to picture the rewarding experience at the end of the climb, hence contributing to their low WTP in the first place. In terms of place identity, the study confirms the findings reported by Williams and Watson (1998) that there is a negative relationship between place identity and WTP (WTP decreases with the increased level of emotional attachment). Thus, the WTP of local people of Sabah who are emotionally attached to Mount Kinabalu and consider the mountain to be part of their personal heritage is more sensitive to fee change.

With respect to spending support, the study revealed that the local people of Sabah would have a higher level of WTP if they know the money they are paying will be spent on environmental protection than on environmental education and improvement of facilities and services. This finding contradicts the findings of previous studies that spending support is positively correlated with all those variables (e.g. Kyle et al., 2003; Williams et al., 1999; Vogt & Williams, 1999). It does support the findings of Vogt and Williams (1999) and Reynisdottir et al. (2008) that visitors would be more supportive of spending if the money would be used to protect and improve the environment than if it was to be used for improving visitor facilities and services. Walpole, Goodwin, and Ward (2001), in their study of the pricing policy for Komodo National Park Indonesia, revealed that visitors would be more willing to pay the entrance fees if the revenues would be used to upkeep the park. As reported by Bidder and Polus (2014a), Sutera Sanctuary Lodges increased the accommodation rates to improve the facilities and services on the mountain (better bathrooms, better beds and mattresses, better insulation, provision of meals) in an attempt to meet the demands of climbers who had complained about the substandard quality of facilities and services and to establish Mount Kinabalu as a tourist destination that meets international standards.

The improvement of facilities and services was met with further hostility that the price increases had not translated into better facilities and services (hot water was still interrupted; electricity and plumbing leaks were still happening). Perhaps this would not have happened if the private company had not adopted a one-size-fits-all approach to dealing with climbers' demands. Before increasing rates to cover the costs of facilities and services improvement (as demanded by certain climbers), the private company should have asked a fundamental question of 'whose demands?' Did all climbers expect the same services? Some climbers might demand superior standards of facilities and services for the advantage of low fees.

The research questionnaire was distributed online which could be inaccessible to certain individuals such as those in remote localities. The use of snowball sampling could result in the initial subjects' predisposition to nominate people that they knew well. Due to this, there is a high possibility that the sample of this study represented only a small portion of the entire population of Sabah. Additionally, the study focused only on the perspectives of the local people of Sabah. For future research, there is a need to investigate the perspectives of other Malaysians and foreign climbers. This is particularly true since the park management adopts a dual-pricing system that sees a huge difference between what the locals are paying and what the non-locals are paying.

6 Conclusion

It was discovered that income is not a significant antecedent of the local people's WTP to climb Mount Kinabalu, and cost does not pose a huge barrier for them to access

the mountain. The dramatic drop in the number of local climbers following the price increases was rather caused by their negative perception of fee fairness which subsequently lowered their WTP to pay the new climbing fees. Place identity and prior climb did not exert significant influence on their WTP. Additionally, they were more constrained by intrapersonal reasons such as the amount of physical demand required, concerns about health and fitness, and risks involved in climbing. When it comes to their spending preferences, they were more supportive of spending on a common cause (i.e. environmental protection) than an individual cause (i.e. improvement of facilities and services).

Since perception of price/fee fairness or unfairness plays a crucial role in determining the local people's WTP, it is important that Kinabalu Park management make the communication of fee structures transparent and fair. They should provide a detailed explanation on the way by which the fees were calculated, and the purpose of the fees. When there is a price change, the park management should make it their duty and responsibility to clarify the change. This is important to help users/climbers develop an understanding of the contribution they are making. Additionally, as indicated by Walpole et al. (2001), an increase in pricing should be done moderately. Gradual increases in price would be less upsetting compared to a single large increase. This could be a lesson for the park management to learn from. Local climbers might not have demonstrated extensive hostility toward the fee increases implemented in 2007 and 2009 if the increases had been done gradually and moderately. Any future increase should take into account this factor before implementation. There was no bidding process done on the selection of the private company to handle the lodging and catering facilities in the park. This situation has resulted in the monopoly of Sutera Sanctuary Lodges. There has also been a lack of monitoring on the way by which the private company set prices/fees for their Mount Kinabalu packages. All this has given rise to the drastic price increases in 2007 and 2009, and the relatively high present fee structures.

Additionally, Sutera Sanctuary Lodges may create different levels of service to accommodate the needs of different climbers, instead of blanketing all climbers within the same group. This may once again relate to the question of price/fee fairness/unfairness. Some climbers may feel that they are obligated to share the burden of the drastic fee surge simply because some other climbers demand more. Additionally, instead of reasoning fee increases by comfort and convenience, the private company may use environmental protection for the justification. For instance, instead of justifying the inclusion of meals in the package regarding convenience, they may justify it in terms of environmental conservation, that is, to mitigate the problem of littering that results when climbers are allowed to bring their meals. Thus, it may make sense to say that spending support is greater for a collective need than for an individual cause.

7 About the authors

Christie Bidder is a lecturer at the Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Sabah, Malaysia. Her research interests include cultural heritage tourism, visitor behaviors, and sustainable tourism. Bidder has written and published several papers on Mount Kinabalu particularly on the themes associated with heritage interpretation and tourism impacts on local residents.

Reni Cacillia Polus is a lecturer at the Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Sarawak, Malaysia. Her research interests include specialinterest tourism and cultural heritage tourism. Polus has also been involved in a consultation project associated with incorporation of indigenous knowledge into heritage interpretation at Mulu National Park.

Thomas Edward Jones is Associate Professor of Environment & Development Studies at Ritsumeikan Asia Pacific University (APU) in Kyushu, Japan. His research interests include Environmental Policy, Nature-Based Tourism and Protected Area Management. Jones has also been fortunate enough to join a survey of Mount Fuji climbers every summer from 2008-2016, resulting in a recent paper "Assessing the recreational value of world heritage site inscription" published in Tourism Management (2017).

8 References

- Ajzen, I., Rosenthal, L. H., & Brown, T. C. (2000). Effects of perceived fairness on willingness to pay. *Journal of Applied Social Psychology*, *30*(12), 2439-2450.
- Bidder, C., & Polus, R. C. (2014a). Retaining access to key tourist assets for local residents: a case of Mount Kinabalu. SHS Web of Conferences 12, 01073 (2014). doi: 10.1051/ shsconf/ 20141201073.
- Bidder, C., & Polus, R. C. (2014b). Local Sabahans' satisfaction with level of access to Mount Kinabalu. SHS Web of Conferences 12, 01073 (2014). doi: 10.1051/ shsconf/ 20141201091
- Bowker, J. M., Cordell, H. K., & Johnson, C. Y. (1999). User fees for recreation service on public lands: a national assessment. *Journal of Park and Recreation Administration*, 17(3), 1-14.
- Chung, J. Y., Kyle, G. T., Petrick, J. F., & Absher, J. D. (2011). Fairness of prices, user fee policy and willingness to pay among visitors to a national forest. *Tourism Management*, *32*, 1038-1046.
- Clawson, M., & Knetsch, J. L. (1966). *Economics of outdoor recreation*. London: Johns Hopkins Press.
- Crawford, D. W., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences*, *13*, 309-320.
- Global Diversity Foundation. (2015a). *Dusun communities of Kinabalu plan to return to their* sacred site- Kakakapan id Gayo Ngaran-2011. Retrieved from http://www.globaldiversity.org/news/southeast-asia/dusun-communities-kinabalu-plan-return-sacred-site
- Global Diversity Foundation. (2015b). *Dusun community ties with Mount Kinabalu*. Retrieved from http://www.global-diversity.org/es/node/233

Ghimire, R., Green, G., Poudyal, N., & Cordell, K. (2014). An analysis of perceived constraints to outdoor recreation. *Journal of Park and Recreation Administration*. *32*(4), 52-67.

- Jackson, E. L. (1991). Leisure constraints or constrained leisure: special issue introduction. *Journal of Leisure Research*, 23(4): 279–285.
- Jacobson, S. K. (1979). A guide to Kinabalu Park. Kota Kinabalu. Malaysia: Sabah National Park Trustees.
- Johnson, C. Y., Bowker, J. M., & Cordell, H. K. (2001). Outdoor recreation constraints: An examination of race, gender, and rural dwelling. *Southern Rural Sociology*, *17*(1), 111–133.
- Kyle, G., Graefe, A. R., & Absher, J. D. (2002). Determining appropriate price for recreation on public lands. *Journal of Park and Recreation Administration*, 20(2), 69-89.
- Kyle, G., Absher, J. D., & Graefe, A. R. (2003). The moderating role of place attachment on the relationship between attitudes toward fees and spending preferences. *Leisure Sciences*, 25, 33-50.
- Laarman, J. G., & Gregersen, H. M. (1996). Pricing policy in nature-based tourism. *Tourism Management*, 17(4), 247-254.
- Lawton, L. J., & Weaver, D. B. (2008). Factors Associated with Non-visitation by Area to Congaree National Park, South Carolina. *Journal of Park and Recreation Administration*, 26(4), 66-82.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.
- McCarville, R. E., Reiling, S. D., & White, C. M. (1996). The role of fairness in user' assessments of first-time fees for a public recreation service. *Leisure Sciences*, *18*, 61-76.
- Mitchell, R. C., & Carson, R. T. (1989). Using surveys to value public goods: The contingent valuation method. Washington, DC: Resources for the Future.
- Mmopelwa, G., Kgathi, D. L., & Molefhe, L. (2007). Tourists' perceptions and their willingness to pay for park fees: a case study of self-drive tourists and clients for mobile tour operators in Moremi Game Reserve, Botswana. *Tourism Management*, 28, 1044-1056.
- More, T. A., & Stevens, T. (2000). Do user fees exclude low-income people from resourcebased recreation? *Journal of Leisure Research*, *32*(9), 341-357.
- Nadirova, A., & Jackson, E.L. (2000). Alternative criterion variables against which to assess the impacts of constraints to leisure. *Journal of Leisure Research*, *32*(4), 396-405.
- New Sabah Times. (2009, February 01). A price too high to climb Kinabalu. Retrieved from http://www.newsabahtimes.com.my/nstweb/fullstory/25505
- Reynisdottir, M., Song, H., & Agrusa, J. (2008). Willingness to pay entrance fees to natural attractions: an Icelandic case study. *Tourism Management*, *29*, 1076-1083.
- Sabah Tourism Board (2006). *The Kinabalu Park: Malaysia's first World Heritage Site and surrounding attractions*. Kota Kinabalu, Malaysia: Sabah Tourism Board.
- Schroeder, H. W., & Louviere, J. (1999). Stated choice models for predicting the impact of user fees at public recreation sites. *Journal of Leisure Research*, *31*(3), 300-324.
- Schroder, T., & Mieg, H. A. (2008). The impact of perceived justice on contingent value judgments. *Journal of Applied Social Psychology*, 38(1), 135-158.
- Shores, K.A., Scott, D., & Floyd, M. F. (2007). Constraints to Outdoor Recreation: A Multiple Hierarchy Stratification Perspective. *Leisure Sciences*, *29*, 227–246.

- Tisdell, C. (2006). Valuation of tourism's natural resources. In L. Dwyer, & P. Forsyth (Eds.) International handbook on the economics of tourism. Cheltenham: Edward Elgar Publishing Inc.
- The Star (2009, January 31). *Highly unreachable*. Retrieved from http://www.thestar.com.my/story.aspx/?file=%2f2009%2f1%2f31%2flifetravel%2f31071 54&sec=lifetravel
- UNESCO (2014). *Kinabalu Park*. Retrieved from http://whc.unesco.org/pg.cfm?cid=31&id_site=1012
- Vogt, C. A., & Williams, D. R. (1999). Support for wilderness recreation fees: the influence of fee purpose and day versus overnight use. *Journal of Park and Recreation Administration*, 17(3), 85-99.
- Walker, G. J., & Virden, R. J. (2005). Constraints on outdoor recreation. In E. L. Jackson (Eds.). *Constraints to leisure*. Pennsylvania, US: Venture Publishing.
- Walpole, M. J., Goodwin, H. J., & Ward, K. G. R. (2001). Pricing policy for tourism in protected areas: lessons from Komodo National Park, Indonesia. *Conservation Biology*, 15(1),218-227.
- Wicks, B. E., & Crompton, J. (1986). Citizen and administrator perspectives of equity in the delivery of park services. *Leisure Sciences*, 8(4), 341-365.
- Williams, D. R., & Roggenbuck, J. W. (1989). Measuring place attachment: some preliminary results. Paper presented at the session on Outdoor Planning and Management NRPA Symposium on Leisure Research, Texas, USA. Retrieved from http://www.fs.fed.us/rm/value/docs/nrpa89.pdf
- Williams, D. R., Vogt, C. A., & Vitterso, J. (1999). Structural equation modelling of users' response to wilderness recreation fees. *Journal of Leisure Research*, *31*(3), 245-268.
- World Tourism Organization. (2004). *Indicators of Sustainable Development for Tourism Destinations: A Guidebook*. Madrid: World Tourism Organization.
- Xia, L., Monroe, K. B., & Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. *Journal of Marketing*, *68*(4), 1-15.