AN ASSESSMENT OF VISITOR SATISFACTION WITH NATURE-BASED TOURISM ATTRACTIONS

Perunjodi Naidoo, University of Technology Mauritius
Prabha Ramseook-Munhurrun, University of Technology Mauritius
Premita Seegoolam, University of Technology Mauritius

ABSTRACT

Nature-based tourism is an important component of the tourism industry and has experienced significant growth during recent years. Nature-based tourism attractions (NBTA) can provide substantial economic gains to both host communities and tourism businesses. To sustain the growth of NBTA and maintain its associated benefits, it is important to ensure that the visitors are satisfied with the experiences provided. Despite the importance of delivering visitor satisfaction for NBTA, there is scant literature available on visitor satisfaction with NBTA. The aims of this study is to identify the factors that influence visitor satisfaction with NBTA. The study also analyzes the relationship between NBTA, overall satisfaction and visitor loyalty. Visitor satisfaction was measured using a questionnaire which adopted the perceive-performance theory. The study area for this study was seven NBTA where convenience sampling was used for the selection of the attractions. Data was collected from the on-site survey method with a sample size of 600 NBTA visitors. Statistical analyses were used and hypotheses were tested. Based upon the results of this study, recommendations were made.

INTRODUCTION

Nature-based tourism is one of the fastest growing sectors of the tourism industry (Memetoglu, 2006). To match consumer demand, there is an increasing need to provide more nature-based tourism attractions to visitors. However, little has been done to analyze visitor satisfaction with these attractions. Satisfaction is recognized as one of the key judgments that consumers make regarding a tourism service (Yüksel and Yüksel, 2002). According to Walker (1995), satisfied customers are believed to affect the long-term viability of an organization through repeat purchase and positive word-of-mouth (WOM) communication. Therefore, it is imperative to evaluate satisfaction at NBTA to ensure the long-term survival of the organization in the competitive business environment and also for enhancing the experience of visitors with the attraction. The assessment of visitor satisfaction with NBTA may also assist in identifying the strong and weak attributes of these attractions and thus help in improving the services being provided. The aim of the study is to assess visitor satisfaction with NBTA. The objectives of the study are to identify the factors that contribute to visitor satisfaction with NBTA. The study also analyzes the relationship between NBTA, overall satisfaction and visitor loyalty.

Mauritius a developing island covering 1,860 square kilometres (720 square miles) with 1,227,078 inhabitants is a well-known holiday destination for beach-resort tourists. Today, tourism is one of the main pillars of the Mauritius economy. The growth of the tourism industry has occurred continuously from 27, 650 tourists in 1970 to 930, 456 in 2008 (Central Statistics Office). In 2008, gross tourism receipts amounted to USD$ 1,338 million (41, 213 million rupees) and provided direct employment to 26, 322 individuals in 2007 (AHRIM, 2008). France is the leading market with 240, 028 tourist arrivals followed by the United Kingdom, Reunion island, Italy, Germany and India. Mauritius is mainly promoted as a beach resort destination; however, so as to gain competitive advantage, other features have

been added to expand the portfolio of activities provided to tourists. In recent years, NBTA has been promoted as a form of green tourism, however, satisfying visitors is still a problem for many of these attractions. Investigating visitor satisfaction at these attractions may help to identify aspects that need improvement so as to enhance the experience of visitors.

The paper is organised as follows: the introductory section presents the objectives of the study. The next section reviews the relevant literature on NBTA and customer satisfaction. The research methodology is then presented followed by the results and discussion. The last part of the study concludes the paper.

LITERATURE REVIEW

Nature-Based Tourism Attractions

Tourism is the world's largest and fastest growing industry. Goeldner, Ritchie and McIntosh (2000) identified three operating sectors within the tourism industry: (1) the transportation sector, (2) the accommodation sector and (3) the attraction sector. According to Gunn (1988) attractions are described as the "first power", "lodestones for pleasure" and the real energizer of tourism in a region. Pigram (1983) takes a more pragmatic approach by stating that without attractions, tourism would not exist. Attractions are a central component of the tourism industry, and Gunn (1988:37) states that "without developed attraction, tourism as we know it could not exist; there would be little need for transportation, facilities, services and information system". Attractions are important to the tourism production process as they often are the reason to visit specific destinations or places. This emphasizes the importance of tourism attractions and highlights the need to understand the range and the type of attraction that exist. According to Swarbrooke (2000:67), "visitor attractions are the heart of the tourism industry; they are the motivators that make people wants to take a trip in the first place". In opposition, Richards (2001) points out that it can be argued that attractions do not always literally attract visitors, however, they certainly do provide a focus for much tourist activity, and are an essential weapon in the arsenal of tourist destinations engaged in a competitive struggle for tourist business.

There have been many attempts to explain the multitude forms in which visitor attractions exist (Holloway, 1995; Smith, 1998). According to Buckley, Pickering and Weaver (2003), visitor attractions range from very small to enormous size, from free entrance to expensive fees, and include both natural and built features or a combination of these two (Prideaux, 2002). Laarman and Durst (1987) define NBTA as a type of tourism activity that combines three specific elements, namely education, recreation and adventure. Valentine (1992) also incorporates the recreation element in his definition, and states that NBTA is primarily concerned with the direct enjoyment of some relative undisturbed phenomenon of nature. He suggested that there are three types of activities that come under his definition: experiences that are dependent on nature, experiences that are enhanced by nature and experiences for which a natural setting is incidental. According to Jenkins and Pigram (2003), nature-based activities may be defined as all forms of leisure that rely on the natural environment and includes many activities, ranging from sitting under at tree to hiking in the wilderness. Due to the diversity of activities and the variation in styles, there is a plethora of expressions for NBTA. According to Newsome, Moore and Dowling (2002) NBTA may be labeled as adventure, wildlife and ecotourism while McKercher (1998) expands it further to alternative tourism, educational tourism, sustainable tourism, responsible tourism and other forms of outdoor-oriented non-mass tourism.

Measuring Visitor Satisfaction

Customer satisfaction is one of the most frequently examined topics in the hospitality and tourism field because it plays an important role in the survival and future of any tourism products and services (Gursoy, McCleary and Lepsito, 2007). The majority of researchers from the 1980's and 1990's found that

satisfaction was more a judgment or evaluation than an attitude and is a complex construct with numerous associated measurement issues (Yüksel and Rimmington, 1998). Past research has operationalized satisfaction at both the overall satisfaction and attribute satisfaction levels. Attribute satisfaction has been defined as consumer subjective satisfaction judgment resulting from observation of attribute performance (Oliver, 1993). Accordingly, it would be more appropriate to first measure customer satisfaction towards different attributes or dimensions of service or product and then calculate overall satisfaction derived from measures of satisfaction with multiple items. Understanding how important each attribute and dimension is to the customers is of upmost importance. According to Backman, Backman and Malinovsky (2000), NBTA satisfaction is measured using dimensions such as programmatic, responsiveness, tangible, empathy, assurance and reliability. Similar dimensions were used by Akama and Kieti (2003) with added attributes such as price, perceived value and responsibility. According to Mehmetoglu (2007), natural attributes play a more important role in satisfying visitors at NBTA. The main attribute for NBTA remains its pristine environment (Prato, 2006), however, there are other attributes that are important for the attraction. Other studies on attractions such as Frochot (2003) use the dimensions of responsiveness, tangible, communication, consumable and empathy to measure customer satisfaction in attractions.

Most of the studies conducted to evaluate satisfaction in the tourism industry have utilized models of expectation-disconfirmation theory (Oliver, 1980) and the perceived-performance model (Tse and Wilton, 1988). The expectancy-disconfirmation model, suggests that satisfaction is related to the interplay of a customer's perceptions, expectations, and intentions. The concept was introduced by Oliver (1980) and indicates that customer satisfaction is an evaluative response to the product purchase and consumption experience resulting from a comparison of what was expected and what is received. If the actual performance is better than their expectations, they are likely to have a positive disconfirmation, suggesting that consumers are highly satisfied and will be more willing to purchase the same product again. Based on the expectancy-disconfirmation theory, Parasuraman and Zeithaml (1988) developed the SERVQUAL instrument to measure perceived service quality. The perceived-performance model (Tse and Wilton, 1988) suggests that consumers' satisfaction or dissatisfaction with a product can be assessed only examining their evaluation of the actual performance. It has been argued that regardless of the existence of any previous expectations, the customer is likely to be satisfied when a product or service performs at a desired level. Baker and Crompton (2000) also state that because performance quality is under management's control, the model may be more useful than other theories of visitor satisfaction, as the basis for the construction of a tool for the tourism provider is to accurately evaluate customer satisfaction. It is very important to identify and measure consumer satisfaction with each attribute of a destination, because consumer satisfaction/dissatisfaction with one of the components may lead to satisfaction/dissatisfaction with the overall destination (Kozak and Rimmington, 2000). Finally, the level of satisfaction attained by an individual may influence their future intentions, in terms of revisiting a destination and/or recommending it to other people.

Customer loyalty reflects attitudes and behavior towards services and their repeat usage (Backman and Crompton, 1991). Some studies recognize that understanding which factors increase loyalty is valuable information for tourism marketers and managers (Flavian, Martinaz, and Polo, 2001). Cronin and Taylor (1992), measure the construct "future behavioral intention" by using two indicators: the intention of repurchase and the intention to recommend through positive WOM recommendations. In tourism research, a similar approach is adopted and loyalty intention is represented in terms of the intention to revisit and the willingness to recommend it to friends and relatives (Oppermann, 2000; Chen and Gursoy, 2001). Therefore, two indicators, "revisiting intention" and "willingness to recommend" are used as measures of loyalty intention. In NBTA, it can be observed that WOM recommendations can be mostly used as loyalty intention as compared to repeat visit. This is so, as according to Chen and Gursoy (2001) visitors may wish to experience a new attraction even if they were satisfied the previous attraction. Thus,

loyalty intention should be measure by "willingness to recommend" as visitors may wish to experience new attractions.

METHODOLOGY

The quantitative method was used to collect data for the study. Literature was examined to identify instruments used for studies on customer satisfaction and service quality in attractions. The research instrument was developed based on models of Akama and Kieti (2003), Frochot (2003), Kim *et al.* (2002) and Howan *et al.* (2008). The questionnaire was divided into three sections. Part A consisted of seven dimensions of NBTA namely: Responsiveness, Tangibles, Price, Communication, Assurance, Empathy and Natural Attractions. Each of these dimensions was further divided into related statements. Part A also consisted of three questions regarding satisfaction, overall satisfaction and customer loyalty. Respondents were required to rate all questions in Part A using a 5-point Likert-type scale ranging from 1=strongly disagree, 2=disagree, 3=neither disagree nor agree, 4= agree, 5=strongly agree. Ritchie (1991; 1995) argues that Likert scales are appropriate for evaluating visitor experiences of attractions as they are effective in measuring customer attitudes and are easy to construct and manage. Section B of the questionnaire consisted of both open and close-ended questions. This section allows general attitudes to be expressed which can aid in interpreting the structured questions. Section C gathered demographic information of the visitors at the NBTA. The questionnaires were designed in both English and French as these languages were understood by most locals and by a large number of tourists. A short and concise covering letter was included to explain the purpose of the survey.

Convenience sampling was used to select attractions based on the list of NBTA identified in the Mauritius Tourism Promotion Authority guidebook. It was noted that in total there were 14 NBTA in the guide book. A letter was sent to each NBTA to seek permission for undertaking the survey at the different locations. Only 6 NBTA positively responded to the letter. The sample size chosen was 100 visitors per attraction representing a total of 600 respondents. The sampling technique used for the survey is the convenience sampling method. Only those who were keen to complete the questionnaire were selected during the month of March to April 2009. The survey was conducted over six weeks at the different attractions where questionnaires were distributed from 9.00 A.M. to 4 P.M on a daily basis respondents were approached and informed about the purpose of the survey prior to answering the questionnaire. Respondents younger than age 16 were excluded from the study. A pre-test was conducted among 15 graduate students in the School of Sustainable Development and Tourism at the University of Technology, Mauritius who had at least visited one of the six NBTA selected. Based on the feedback received from the pre-test, the wordings of 4 questions were modified. Then, the questionnaire was tested at the 6 NBTA attractions (N=12) with 2 questionnaires distributed per attraction. No modifications were made as both the French and English questionnaires were free from ambiguities.

RESULTS AND DISCUSSION

Out of 600 questionnaires, 21 were not returned and 22 were discarded since they were partly filled, thus giving a response rate of 92.8%. The percentage of females was higher than males with 52% and 48% respectively although visitors were approached with no gender discrimination. However, when groups of mixed genders were approached, the female was delegated to complete the questionnaire. Additionally, females were easily approachable and were keener to respond as compared to males. 75% of the respondents were between 16-39 years of age. 74.9% of the respondents have visited NBTA in the past, thereby showing that they had experienced similar attractions and were familiar with the services and facilities being offered at such sites. 62% of the respondents stated that it was their first visit to that particular NBTA, 25% of respondents were at their second visit to the NBTA, followed by 8% who were visiting the attraction for the third time and the 5% remaining were repeaters with at least 4 visits. It can

be noted that respondents were mainly tourists with a percentage of 60.7% while local respondents accounted only 39.3%.

Table 1 shows the statements pertaining to respondents' visitor satisfaction with the NBTA. Participants were asked to rate their satisfaction with the dimensions of Responsiveness, Tangibles, Price, Communication, Assurance, Empathy, Natural Resources. The highest mean value for Responsiveness was 4.10 for "visitors are made to feel welcome". The lowest mean value is 3.87 for the statement of "staff is well informed to answer customers' requests". This shows that the NBTA were hospitable towards the customers. Statements referring to availability and willingness of staff to welcome and help, convenience opening hours and waiting time were rated as satisfactory by customers. However, staff at the attractions were not well informed enough to help customers in their requests and were unable to provide them with the relevant information they required.

The highest mean value for Tangibles is 4.21, which is for "site is well kept and restored". It shows that the NBTA in Mauritius are well-maintained. This is so as, NBTA is a new developing market for Mauritius and that the attraction managers are aware that they have to keep the sites clean and attractive to satisfy customers. The minimum mean value for Tangibles is 3.90 which is for "direction sign to show around the attraction" which demonstrates that signage needs to be improved. Furthermore, the findings reveal that visitors were not very satisfied with the level of crowdedness at the attractions. They felt that the attractions received too many customers which spoilt the natural beauty of the site.

Table 1 shows that the visitors perceived that Pricing at the NBTA were averagely priced. The majority of visitors were international visitors, thus they had experienced nature-based attractions abroad which may have offered better value for money. A few visitors also expressed that a price discrimination system was imposed on them, due to the difference in pricing for locals and tourists. In Mauritius, it is a common practice that a "tourist price" is charged for several services as it is believed that tourists have higher purchasing power than locals. Additionally, a few tourists believed that they did not receive value for money with the current price charged for the articles made available on the site. The results for the Communication dimension reveal that some of the NBTA sampled only offered brochures, information or leaflets in French and English and not in foreign languages such as German or Italian. The Mauritian population is fluent in both French and English. Since a majority of visitors are locals, French and British tourists, managers of NBTA did not provide foreign language brochures. However, the other foreigners strongly feel that it is necessary to offer foreign language brochures as this will be really helpful for them to appreciate the attraction. Furthermore, it can be seen that at some attractions, there is a need to have guides in order to provide visitors with relevant information.

Assurance consisted of 4 statements as shown in Table 1. The respondents felt that the NBTA is not easily accessible by local transport. Only, respondents having private cars, hired cars or travelling by coach can easily access the site. Respondents also found that there were not enough parking during peak periods and this was mainly observed from local respondents. The results also reveal there were not enough places to sit and relax while discovering the attractions. These comments were mostly from parents with small children and elderly persons who found that it was tiresome to visit the attraction without resting during their visit. The statement about safety and security achieved the highest mean value of 4.02 and shows that NBTA were committed to keeping visitors safe and secure.

The dimension of Natural Resources consisted of 4 statements. The lowest mean value was 3.40 for the statement "the sites consider needs for elderly and disable visitors". This shows that customers feel that the NBTA could do more to provide for the needs of the elderly and disabled visitors. However, as the experience offered at some NBTA is expected to offer a high level of risk, it is important that NBTA provides an indication of the appropriateness of the site to different market segments (i.e. adventure seekers, family with young children, elderly) in their promotion. Of the 7 statements regarding Natural

Resources, only two statements have mean value of less than 4 as shown in Table 1. Visitors suggested that the attractions tend to lack rare fauna and flora despite being satisfied with the uniqueness of the natural resources.

Table 1: Mean Scores for Visitor Satisfaction at NBTA

DIMENSIONS	MEAN VALUE	STANDARD DEVIATION
Responsiveness		
Staff are always helpful and courteous	4.06	0.787
Staff are quick to react to customers' requests	3.91	0.735
Staff are willing to take time with visitors	3.89	0.882
Staff are well informed to answer customers' requests	3.87	0.879
Visitors are made to feel welcome	4.10	0.761
Visitors are free to explore, there is no restriction	4.05	0.743
Waiting time for service at the attraction is acceptable	4.08	0.752
The site is opened at convenient hours	4.07	0.752
Tangibles		
The site is well kept and restored	4.21	0.646
The attraction environment is attractive	4.13	0.712
Direction signs to show around the attraction are clear and helpful	3.9	0.914
The attraction is uncrowded and unspoiled	3.92	0.886
Staff are presentable and easily identified	4.06	0.793
The physical facilities offered are well maintained and in good condition	4.08	0.688
The attraction is clean	4.09	0.761
Price		
The entry price is reasonable	3.84	0.873
Level of prices for services provided on the site is acceptable	3.67	0.824
There is no price discrimination at the site	3.68	0.838
The site offers value for money	3.83	0.858
Communication		
There is availability of brochures in English and /or French of the attraction	3.75	0.958
The information offered is sufficiently detailed to enjoy the attraction	3.62	0.873
Information about forbidden and limited behaviors at the attraction are provided	3.62	0.950
Foreign language leaflets are helpful	3.61	0.908
There is a need to have guides in order to obtain relevant explanation	3.8	0.874
Assurance		
You feel Safe & Secure at the attraction	4.02	0.734
There is sufficient places to sit and relax	3.83	0.850
Attraction is easily accessible for everyone (roads, transport & signage)	3.81	0.829
There is enough parking available	3.80	0.879
Empathy		
Personal attention is provided to visitors when needed	3.88	0.787
The facilities and equipment offered are at convenient location	3.87	0.773
There is a good viewing and comfortable facilities available	3.93	0.833
The site considers needs for elderly and disable visitors	3.40	1.005
Natural resources		
There are rare fauna and flora at the attraction	3.94	0.842
The attraction is a tranquil rest area	4.12	0.757
The site is unique and authentic	4.10	0.768
It is a very knowledgeable site for visitors	4.05	0.806
The site is free from air and noise pollution	4.11	0.778
There are large variety of species	3.83	0.918
It is a wilderness and unspoiled area	4.12	0.712
Overall Service quality	**4.13**	**0.622**
Loyalty intentions		
I will recommend this attraction to friends and relatives	4.10	0.673
I will revisit this attraction again	3.62	1.076
Visitor Satisfaction		
I am satisfied with the services provided by the NBTA	4.10	.601

Table 1 shows the mean scores for the service quality dimensions of nature-based tourism attractions

The overall service quality with the NBTA was calculated by adding the mean values of all statements and dividing the sum obtained by the number of statements. The overall service quality with the NBTA was 4.13 indicating that respondents were satisfied with their visit. Table 1 further showed that respondents were more likely to recommend the attraction (mean value of 4.10) that revisit it again (mean value of 3.62).

Relationships between NBTA dimensions, Overall Satisfaction and Loyalty Intentions

The relationships among service quality, satisfaction, and behavioral intentions have been a significant strategic focus of organizations and academic researchers (Cronin and Taylor, 1992; Baker and Crompton, 2000). Researchers have established a positive relationship between service quality and customer satisfaction (Cronin and Taylor, 1992; Baker and Crompton, 2000) and customer satisfaction and loyalty (Cronin and Taylor, 1992; Oliver, 1997). However, the strength of the relationship between satisfaction and loyalty has been found to vary significantly under different conditions (Anderson and Srinivasan, 2003). This study therefore attempts to test the following hypotheses:

H_1: The NBTA dimensions has a significant influence on visitors' satisfaction

H_2: The NBTA dimensions has a significant influence on visitors' loyalty intentions

H_3: The NBTA dimensions and satisfaction have a significant influence on visitors' loyalty intentions

The hypotheses were tested using multiple regressions as the study attempts to find the effect of the independent variables on the dependent variable. Linear regression analysis was conducted using general overall visitor satisfaction (SAT) as a dependent variable and the seven dimensions of service quality, responsiveness (RES), tangibles (TANG), Price (PRC), communication (COMM), Assurance (ASSU), empathy (EMP) and natural resources (NR) as the independent variables. The first model measured the NBTA dimensions on visitors' satisfaction and has the following form:

SAT = f (RES, TANG, PRC, COMM, ASSU, EMP, NR)

The second model measured the NBTA dimensions as independent variables on visitors' loyalty as dependent variable and has the following form:

LOYALTY = f (RES, TANG, PRC, COMM, ASSU, EMP, NR)

The third model measured the NBTA dimensions and visitor satisfaction as independent variables on visitors' loyalty as dependent variable and has the following form:

LOYALTY = f (RES, TANG, PRC, COMM, ASSU, EMP, NR, SAT)

Table 2 presents a summary of the regression results. The adjusted R^2 of 0.455 indicates 45.5 percent of variance in visitors' satisfaction can be predicted by five of the seven dimensions, namely Tangibles, Price, Assurance, Empathy and the Natural Resources. The positive coefficient for the dimensions Tangibility, Price, Empathy and Natural Resources were found to be statistically significant, suggesting increasing level of satisfaction. However, the assurance dimension had negative coefficient, meaning decreasing level of satisfaction. In other words, higher assurance results in decreasing visitor satisfaction. The resulting regression model 1 is:

SAT = 0.316 + 0.313 (TANG) + 0.289 (PRC) – 0.385 (ASSU) + 0.355 (EMP) + 0.198 (NR)

The results of the regression analyses indicate a significant predictive validity of the dimensions of the instrument. Hence, the hypothesis H_1 is supported. Overall, this study concluded that NBTA dimensions affect visitor satisfaction.

Table 2: Regression results for the NBTA on Satisfaction and Loyalty Intentions

Independent variables	Visitor Satisfaction			Loyalty Intentions		
	Standardized Coefficients	t-value	Sig.	Standardized Coefficients	t-value	Sig.
Responsiveness	-0.158	-1.115	0.269	0.228	1.492	0.140
Tangibles	0.313	1.936	0.047*	0.244	1.401	0.035*
Price	0.289	2.663	0.010**	0.070	0.598	0.551
Communication	0.098	0.717	0.476	0.066	0.447	0.656
Assurance	-0.305	-2.435	0.017**	0.060	0.444	0.658
Empathy	0.355	2.746	0.008**	-0.236	-1.688	0.046*
Natural Resources	0.198	2.057	0.043*	0.352	3.381	0.001**
	Adjust $R^2 = 0.455$; $R^2 = 0.503$; F-value = 10.537, p < 0.000			Adjust $R^2 = 0.366$; $R^2 = 0.421$; F-value = 7.595, p < 0.000		
* Significant at 5%; ** Significant at 1%						

Table 2 shows the results of the regression model 1 and 2 respectively. Model 1 shows that visitor satisfaction is influenced by tangibles, price, assurance, empathy and natural resources, while model 2 shows that loyalty intentions is influenced by tangibles, empathy and natural resources.

Table 2 further shows the regression results for NBTA and visitors' loyalty intentions. The adjusted R^2 of 0.366 indicates that 36.6 percent of the NBTA is associated with visitor loyalty by three of the seven dimensions, namely tangibles, empathy and natural resources. The positive significant coefficient suggests that the highly perceived NBTA dimensions led to higher visitor loyalty. The resulting regression model 2 is:

LOYALTY = 0.475 + 0.244 (TANG) – 0.236 (EMP) + 0.352 (NR). Therefore, H_2 is partially supported.

Visitor satisfaction may be considered as a mediator to the extent to which it carries the influences of NBTA dimensions to visitor loyalty intentions. Table 3 shows the regression results for NBTA and overall satisfaction on visitors' loyalty intentions. The adjusted R^2 of 0.383 indicates that 38.3 percent of the NBTA and overall satisfaction is associated with visitor loyalty. Three of the seven dimensions, namely tangibles, empathy and natural resources influences visitors loyalty intentions, where tangibles and natural resources have positive influences while empathy has a negative influence. It is further observed that overall satisfaction is also associated with loyalty intentions. The resulting regression model 3 is:

LOYALTY = 0.413 + 0.177 (TANG) – 0.312 (EMP) + 0.309 (NR) + 0.216 (SAT). Therefore, H_3 is partially supported.

Table 3: Regression results for NBTA dimension and Satisfaction on Loyalty intentions

	Loyalty Intentions		
Independent variables	Standardized Coefficients	t-value	Sig.
Responsiveness	0.262	1.723	0.089
Tangibles	0.177	1.002	0.019**
Price	0.008	0.064	0.949
Communication	0.045	0.307	0.760
Assurance	0.126	0.907	0.367
Empathy	-0.312	-2.158	0.034*
Natural Resources	0.309	2.927	0.005*
Visitor Satisfaction	0.216	1.731	0.048**
Adjust $R^2 = 0.383$; $R^2 = 0.444$; F-value = 7.201, p < 0.000			
* Significant at 5%; ** Significant at 1%			

Table 3 shows the influence of NBTA dimensions and visitor satisfaction on loyalty intentions and it is found that only tangibles, empathy, natural resources and visitor satisfaction are statistically significant.

CONCLUSIONS

The purpose of the study was to assess visitor satisfaction at NBTA in Mauritius. There was a need to identify the important attributes that contribute to visitor satisfaction at these attractions. Dimensions such as Responsiveness, Tangibles, Price, Communication, Assurance, Empathy and Natural Resources were found to be important determinants of customer satisfaction for NBTA. The perceived-performance model was adopted for the survey. Visitors were less satisfied with the attributes of Communication, Price and Empathy while they were more satisfied with Tangibles and Natural Resources. Studies on attractions found similar results which were obtained by Akama and Kieti (2003) for Price and by Frochot and Hughes (2000) for Communication and Empathy. The weak attributes need to be redressed as this may have an effect on visitor satisfaction over the long-term.

In the study, it was observed that respondents felt that staff was not well informed to react to consumers requests. Training is a key factor to the success of any organization and staff must be provided with proper training in terms of communicating with guests. They should be well briefed about the activities and services provided by the NBTA. They could also be given relevant documentation regarding possible questions that visitors may ask. The aim of training would be to ensure that staff provide a high level of service to the customers and in return create visitor satisfaction. The Tangibles of NBTA is of fundamental importance for consumers. The survey revealed that there is a lack of signage at the attraction. The management should therefore place proper direction signs to enable customers to visit the attraction without a guide. The problem of crowding at the attraction must be addressed by controlling the carrying capacity at the entrance by implementing an advanced booking system during peak seasons. There is also a lack of availability of brochures in languages like German, Spanish and Italian. NBTA must make brochures available in these languages available as according to data from the survey, non-English speaking visitors consists of around 25%. These must include sufficient details to enable the visitors to enjoy the attraction while at the same time providing information on the behavior expected from customers on the site.

The NBTA are located mostly in remote areas where there are few or no transport facilities to reach these attractions. The Ministry of Tourism and Leisure in collaboration with the transport authorities can devise strategies to provide public transport to these sites to ensure access to locals.   The pricing and services offered should be reviewed to offer more value for money and quality to visitors.   For instance, it was found that visitors want additional facilities and amenities such as more food and beverage outlets and more diversify products in its gift shop. Thus management of the attractions must be able to fulfill all the needs of the customers in order to enhance satisfaction.

The study has also found that there is a relationship between NBTA, overall satisfaction and visitors' loyalty intentions. The findings of this study indicate that tangibles, price, assurance, empathy and natural resources dimensions have significant effect on overall satisfaction. It was also found that visitors' satisfaction play an important role in enhancing visitors' loyalty intentions. Thus, a satisfied NBTA visitor is important in developing a loyal visitor. Satisfaction was also found to mediate the relationship of NBTA (via tangibles, empathy and natural resources dimensions) and visitor loyalty. It was found that although visits were likely to recommendation these attractions, there was a lower likelihood for repeat patronage. Furthermore from the study data, it is seen that visitors of NBTA are mainly first timers. Thus, to remain competitive, NBTA in Mauritius should satisfy first time visitors so that they recommend the attraction to others. Future research could investigate the differences between international tourists and local visitors' perceptions of visitor satisfaction with NBTA. This could assist organizations in appropriately positioning the NBTA and providing the services required by their specific market segments. Another study could use factor analyses to test the validity of the seven-dimension structure instrument as a generic tool to measure satisfaction in NBTA.

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BIOGRAPHY

Perunjodi Naidoo is a lecturer of Tourism at the University of Technology, Mauritius. Her research interests include tourism marketing, sustainable tourism and service quality. She can be contacted at the School of Sustainable Development and Tourism, University of Technology Mauritius, La Tour Koenig, Pointe aux Sables. Email: pnaidoo@umail.utm.ac.mu

Prabha Ramseook-Munhurrun is a lecturer of Services Management at the University of Technology, Mauritius. Her research interests include service quality, customer satisfaction and tourism marketing. She can be contacted at the School of Sustainable Development and Tourism, University of Technology Mauritius, La Tour Koenig, Pointe aux Sables. Email: pmunhurrun@umail.utm.ac.mu

Premita Seegoolam is a former undergraduate student at the School of Sustainable Development and Tourism.