Rural geotourism as an option for development in Phuthaditjhaba: Golden Gate National Park area, South Africa

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Abstract

Geotourism is a dynamic and competitive industry taking a clear and certain form in its development. One of the Geotourism products which is growing under the umbrella of rural tourism is the recently named notion of 'Rural Geotourism'. Studies of tourist motivations have improved understanding of travel motivations and in segmenting the markets, thus allowing tourism marketers to allocate scarce tourism resources more efficiently. Segmentation is often viewed as a very powerful and useful instrument to market goods and services to targeted markets and targeted groups. Segmentation techniques based on motivations provide insights that destination marketers could use in developing and promoting their tourism destinations more effectively. This paper identifies the main drivers for travellers to participate in rural geotourist activities in different times of the year. The main purpose of this study is to characterise rural geotourists' motivations undertaking their rural geotourism experiences in a given period. The sample population used consisted of tourists who visited the Lehaheng la Wetsi Cave in Phuthaditjhaba. A convenience sampling method was used and an on-site survey was administered during July and August, 2014. A self-administered questionnaire was also used. As a result, 502 questionnaires were used for further data analyses. Different types of appropriate statistical techniques were used, including factor analysis and cluster analysis. The results of this study reveal that geotourists motivations can be placed into meaningful and manageable groups and they are identified as rural geotourism participants. Push and pull motivation items were also analysed. Factors were identified and categorized based on the months in which visit was made. Tourism managers should distinguish between the winter and summer tourist markets in their promotional strategies.

Key words: Rural tourism, geotourism, segmentation, motivations, tourist markets,

Introduction

Geotourism is a dynamic and competitive industry, and as a new tourism product it is taking a clear and certain form in its development as was noted by Costa and Buhalis (2006). One of the geotourism products which is growing under the umbrella of rural tourism is the recently named ‘Rural Geotourism’ (Allan and Shavanddasht, 2017). Rural geotourism is a form of natural tourism that occurs in the countryside which includes unique geological and
geomorphological landscapes. Geotourism, considering in particular ‘new rural’ geotourism destinations are ideal for those who are interested in local cultures, natural, and geological sciences, particularly lithology and petrology, and also for those willing to gain knowledge about their places in our dynamic earth. Robinson (2008) indicates that visitors of geo-heritage such as geo-villages, geoparks, geo-sites, caves, mine, etc. are considered geotourists or geotravelers also. Along the same line of thought Pralong (2006) further suggests that there are specific targeted groups, such as seniors, families, and schools whose needs and wants are satisfied by different geotourism activities. Huang (2010) argues that tourist motivations have been central in tourism research for several decades and an improved understanding of travel motivations would help in segmenting the markets thereby, allowing tourism marketers to allocate scarce tourism resources more efficiently. As a result, Berrigan et al., (1992) view segmentation as a very powerful and useful tool to market goods and services to targeted markets and targeted groups. The argument further notes that the field of tourism would greatly benefit from a segmentation technique based on motivations because it could provide cues and/or insights that destination marketers could use in developing and promoting their tourism destinations. The most recognized theory within the realm of tourism research better known as the “push–pull factor” compendium by Tolman (1959), and more recently by Dann (1977), is perhaps the most fitting paradigm. The examination of motivations based on the push and pull factors has been generally well accepted in the literature on tourist motivation (Yuan & McDonald, 1990; Uysal & Hagan, 1993).

Allan and Shavanddasht, (2017) have explored tourist’s motivations for participation and argue that significant issues in the broader tourism literature are still an undeveloped area of study although the range of implementation of motivation studies in the tourism literature is abundant (Allan, 2012). However, even if the rural tourism has received a lot of attention in the pertinent literature, investigating geotourists’ motivations in relation to rural tourism, and based on time of visitation is under-researched and nearly non-existent. This paper contributes by filling this gap as it identifies the main drivers for travellers to participate in rural geotourist activities in different times of the year. The main purpose of this study is to characterise rural geotourists’ motivations undertaking their rural geotourism experiences in a given period. The results of this study are expected to reveal geotourists motivations and allow for placing them into meaningful and manageable groups.

**Literature review**

**Motivation**

Travel motivation has gained considerable attention from tourism academia since the 1960s so as to better understand and predict factors that influence travel decision making (Kim et al., 2007). According to Backman et al. (1995), motivation is conceptually viewed as “a state of need, a condition that serves as a driving force to display different kinds of behaviour toward certain types of activities, developing preferences, arriving at some expected satisfactory outcome.” This driving force has dominated travel patterns to protect and satisfy one’s desire and to increase the self-value of an individual (Lee and Chen, 2005). By reviewing the existing literature on tourist motivation, several theories or models have been developed to guide the empirical study of travel motivation, including push–pull (Dann, 1977), escape seeking (Dunn and Iso-Ahola, 1991), and travel career ladder (Pearce, 1988). Particularly, the push and pull theory provides an important theoretical framework (Dann, 1977; Klenosky, 2002). Simply stated, push forces is “considering whether to go” (i.e. the desire to travel), while pull forces are associated with the decision “where to go” (i.e. the choice of destination) (Kim et al., 2007). Based upon the push and pull approach, people are pushed by internal desires, such as personal escape, psychological or physical health, thrill and adventure, and social interactions (Baloglu and Uysal, 1996). Subsequently, they are
then pulled by external resources, such as natural or artificial attractions that a destination may possess (Cha et al., 1995). It is worth mentioning that the two sets of forces are dependent, thus, peoples’ decisions to travel are formed consciously or unconsciously in a two-stage sequence (Kim et al., 2007; Wong et al., 2013). To date rural tourism has been a popular research topic among tourism scholars. Tourists’ motivations in rural areas have previously been studied through surveys (Bansal and Eiselt, 2004; Bieger and Laesser, 2002, 2004; Chen and Chen, 2010; Devesa et al., 2010; Farmaki, 2012; Frochot, 2005; Kamata and Misui, 2013, 2015; Park and Yoon, 2009).

Qualitative research could be more helpful in generating insightful information about people’s motivations for traveling (Huang, 2010). In addition, segmentation is a good way to gain a better position in the markets compared to competitors, because it provides valuable information on customers and makes it possible for a destination to adjust its supply to better match customers’ needs (Matzler et al., 2004). Earlier rural tourism segmentation studies have mainly compared what segments are like or what they do instead of studying what they would like. This information is particularly important in order to develop rural tourism businesses and destinations. Earlier studies have either segmented rural tourists based on their travel motivations (i.e. push motivations) (e.g. Park and Yoon, 2009), benefits (i.e. pull motivations) they seek from a destination (e.g. Kastenholz et al., 1999), or a combination of these two (e.g. Molera and Albaladejo, 2007). However, in rural tourism segmentation using both push and pull motivations has rarely been investigated in a single study. Instead, most studies have focused on what activities members of different segments want to do during their holiday (e.g. Park and Yoon, 2009).

Rural geotourism

Rural tourism typically refers to tourism outside densely populated areas and tourism centres (Allan and Shavanddasht, 2017). Many countries are experiencing expansion due to the benefits it offers to the host community and the tourists (San Martin and Herrero, 2012). Generation of income for local communities is one of the benefits of rural tourism. Communities are able to use such income toward the sustainability of their traditional activities (Romera et al., 2011), the promotion and conservation of their local arts and cultures, and the prevention of rural–urban migration. Haldar (2007) documented other benefits of rural tourism and postulates that local communities are benefitting from rural tourism in three aspects: economic, environmental, and sociocultural. Rural geotourism is considered also as a new geotourism product offering.

Characteristics of rural tourism, with an emphasis on geology and geography, are included in this classification and have become known as a strategy for universalization of earth sciences. Its main thrust strives to explore and revive cultural identities and integrate them with geo-knowledge for educating locals and transferring knowledge to local and foreign visitors. Farsani et al., (2013) argue that additionally it integrates rural tourism holidays activities with earth sciences. Furthermore, rural geotourism is not only transferring geo-knowledge from the professional to local level, schoolchildren, and visitors, but also a way for implementing sustainable principals and Geo-conservation methods. According to Farsani et al., (2013) rural geotourism is a gateway for the entrance of public and private infrastructures and educational facilities into rural areas particularly in developing countries.

In the Eastern Free State context, the Maloti Drakensburg Route there are some villages with hand-dug houses amidst the unique highland habitat. The Golden Gates Highlands National Park with its dramatic land formations is one of South Africa’s most significant conservation area. The park derives its name from the brilliant shades of gold caused by the sun’s rays on the sandstone cliffs of the park (Kotze 2002). Together with the Basotho Village they make up rural geotourism destinations which can offer different experiences like
hotels, Lehaheng la Wetsi cave, living like a Basotho man and living in the typical Basotho Cultural Village, etc. to visitors. In these villages, geoheritage and geo-landscapes fit in with the rural population’s lifestyle and culture. Moreover, visitors can not only be educated and touch the stones, but can observe the use of stones in architecture and culture as well (Farsani et al., 2013).

The Study area

Figure 1: Location of the study area Source: Authors own – (Chingombe, 2016)

Methodology

Questionnaire design and data collection

The sample population for this research consisted of tourists who have visited the Lehaheng la Wetsi Cave in Phuthaditjhaba during the period surveyed. A convenience sampling method was used and an onsite survey was administered in July and August, 2014. A self-administered questionnaire was employed and total of 600 questionnaires were distributed, but 98 questionnaires proved to be unreliable because of multiple missing values. As a result, 502 questionnaires were used for further data analyses. These data were separated into yearly first half, and yearly second half samples. In this study, summer tourists were defined as those who had undertaken a trip during January to June. The sample size was
equally distributed between summer visitors (n = 229) and winter visitors (n = 273). The questionnaire structure consisted of two parts, which have age characteristics of tourists and “travel months of the year. The second part contained statements relating to the purpose of the visit. Each motivation was rated using a five-point Likert scale, ranging from ‘1 - strongly disagree’ to ‘5 - strongly agree’. The questionnaire was prepared in English. The pilot study (N = 30) was conducted to provide vital feedback on the language, format, and content of the different items of the questionnaire (Thomas et al., 2005). After modification, there were total of 502 cases in good quality collected within two months and analysed for further research results.

Data analysis

Microsoft Excel was used in the data capture of all the surveys and analysed using the Statistical Programme for Social Sciences (SPSS 17.0) and Cluster 3.0 (de Hoon 2002). Different types of appropriate statistical techniques were used, including factor analysis and cluster analysis. Factor analyses with varimax rotation were performed on motivations to identify smaller sets of explanatory composite factors that define the fundamental constructs assumed to underlie the original variables. Kamata and Misui, (2015) posit that it enables the identification of some homogeneous groups (segments) using data that describe pull or push motivation. Factors with an eigenvalue equal too higher than 1.0 were considered only. In the second step, we derived each tourist motivation factor for summer and winter from the motivation items and then clarified each motivation factor for rural geotourism. The cluster analysis (K-mean cluster analysis) was conducted in two stages. In the first stage, the factor scores of each respondent were used to segment geotourists into homogeneous groups. Next, socio-demographic and travel profiles in each cluster were developed and compared using a chi-square test to find statistical differences among the clusters. This analysis of summer and winter clarified the number of segments and their characteristics.

Results

As the same of summer's tourists, the sample size of summer tourists was 5193 tourists. The push and pull motivation items were factor analysed. Ultimately, 12 push and eight pull motivation items were analysed and six factors were derived with eigenvalues of greater than one. The total variance accounted for was 58.42%. The summary of the factor analysis results is shown in Table 4. We identified and categorized the factors based on the months in which visit was made. Each cluster was named according to the visiting month of that cluster that received the highest of visitors for the period. The results were also characterized by demographic variables and compared using a chi-square test to find statistical differences among the clusters. The summary of each cluster is as follows:

- Cluster 1 (58%): We named this cluster summer cluster since tourists in this cluster seek soothing and release from the daily life routine and life pressure. These were mainly male tourists aged 40–59, undergraduate, employed, and married.

- Cluster 2 (42%): We named this cluster winter cluster referring to tourists who visited the area when volumes were low and the weather was not favourable for them to partake in this kind of activity. These were mainly adults.
Table 1: Distribution of tourists during the summer season

<table>
<thead>
<tr>
<th>Cluster 1 Months</th>
<th>Total Visitors</th>
<th>% Number of Visitors</th>
<th>Eigenvalues</th>
<th>% Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>248</td>
<td>4.8</td>
<td>1.7</td>
<td>21.4</td>
</tr>
<tr>
<td>March</td>
<td>1029</td>
<td><strong>19,88</strong></td>
<td>1.3</td>
<td>13.2</td>
</tr>
<tr>
<td>May</td>
<td>908</td>
<td>17.5</td>
<td>1.2</td>
<td>13.4</td>
</tr>
<tr>
<td>June</td>
<td>622</td>
<td>12</td>
<td>1.1</td>
<td>15.5</td>
</tr>
<tr>
<td>October</td>
<td>1035</td>
<td><strong>20</strong></td>
<td>0.6</td>
<td>18.8</td>
</tr>
<tr>
<td>November</td>
<td>409</td>
<td>7.9</td>
<td>0.4</td>
<td>17.6</td>
</tr>
<tr>
<td>December</td>
<td>942</td>
<td><strong>18,1</strong></td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>5193</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Cluster 2 Months</td>
<td>Total Visitors</td>
<td>% Number of Visitors</td>
<td>Eigenvalues</td>
<td>% Variance</td>
</tr>
<tr>
<td>February</td>
<td>108</td>
<td>1.6</td>
<td>1.5</td>
<td>21.4</td>
</tr>
<tr>
<td>April</td>
<td>784</td>
<td>11.7</td>
<td>1.2</td>
<td>22.7</td>
</tr>
<tr>
<td>July</td>
<td>569</td>
<td>8.5</td>
<td>1.0</td>
<td>27.3</td>
</tr>
<tr>
<td>August</td>
<td>818</td>
<td>12.2</td>
<td>1.0</td>
<td>28.6</td>
</tr>
<tr>
<td>September</td>
<td>4430</td>
<td><strong>66,0</strong></td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>6709</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Summer tourists

The summer’s tourists sample size was 5193 tourists for the summer season (Table 1). The push and pull motivation items were factor analysed. Ultimately, nine years and 12 motivation months’ items were analysed and four months were derived with eigenvalues of greater than one. The total variance accounted for was 100%.

Winter tourists

Winter’s tourists a sample size of 6709 tourists was used. The push and pull motivation items were factor analysed too. Ultimately, nine years and 12 motivation months’ items analysed and two months were derived with eigenvalues of greater than one. The total variance accounted for was 100%.

The summary of the factor analysis results is shown in Table 1. We identified and categorized the factors based on the months constituting each factor including geological attractions, novelty seek, enjoyment, socialization, knowledge, and historical attractions. As a result of cluster analysis, we employed two clusters where statistical conditions were significant. Table 2 shows the results of the cluster analysis. The months that received the highest ratings in each cluster were bolded in Table 2. Each cluster was named according to the months within that cluster that received the highest visitors.

The results were also characterized by demographic variables and compared using a chi-square test to find statistical differences among the clusters.
Discussion

So far, there has been no detailed investigation of rural geotourism segmentation in South Africa. Thus, this research has found two different rural geotourist segments among summer tourists and winter ones by segmenting them according to their travel times using k-means clustering method. Generally the visit period coinciding with the cluster 1 characteristics shows that many people directed resources towards their visits and that weather conditions were favourable for rural geotourism activities. The second cluster coincides with the winter period has fewer visitors during this time due to constraints on weather conditions and availability of disposable income.

As a result of cluster analysis, one cluster for summer tourists we identified. The month, October is the largest segment with 28.4% of 184 summer respondents. A very quiet, calm, and passive rural holiday is very important for such respondents. They will choose a destination that can offer beautiful landscapes and good learning opportunities to take advantage of and spend time in outdoor attractions in the nature. These were mainly children. This result may be explained by the fact that school going children have stronger motivation to enjoy hobbies that are undemanding and provide opportunity for learning.

Whereas, the second segment, winter cluster is the smallest segment with 79 respondents. The members of this segment choose the destination based on very different targets. As an example, this segment should be targeted with low cost products as they valued low prices the most since they imagined it as a cheap destination. Moreover, in this segment some people want to feel relaxed, value privacy, and like calm and rush-free atmosphere more than the other segment; therefore, they are quite passive and do not generally value other benefits as high as the other segment. On the other hand, it could be deduced that other people chose Basotho Cultural village because it provides a large variety of activities for
them and their family members, thus they are active tourists. These were mainly adult tourists. They are older than the first cluster. A possible explanation for this might be that the young generation often prefer to spend their free time actively as they are physically agile. Among rural geotourists there is a group that dedicates to searching for a “lazy” relaxing holiday without an emphasis on any special activities. For them, historical and geological aspects of the village play an important role in choosing this destination. These can be regarded as basic expectations for almost all rural geotourism, something that everyone expects when they come to this rural destination, as it is popular for having historical texture with Basotho Cultural huts close to the mountains.

On the other hand, the findings of this study showed two clusters in monthly distribution of geotourists to the study area. The first segment is the largest segment with 184 respondents. They want to spend time with their family and children, have fun, exciting experience, and pleasant time. These factors should be taken into account when planning marketing efforts for this segment. These were mainly school children.

The second segment is the smallest segment with 42% of 79 respondents, referring to tourists who seek geological attractions. What makes study area so unique is that there caves naturally formed that make the landscape look impressive. In this study area geo-heritage and geolandscapes fit in with the rural population’s lifestyle and culture.

Conclusions

Examining clusters has been a very important act recently because comprehensively studied clusters provide specific information about tourists’ purchasing patterns to managers and destination administrators in the tourism industry (Park, 2009). The goal of the current study was exploring the characteristics and segmentation of tourists who visited Lehaheng la Wetsi Caves and the Golden Gate High Lands National Park in different seasons of the year. The findings of this study are as follows:

First, the geological attractions attract both winter and summer time visitors. Moreover, in both groups young learners were mainly the larger group. Historical and geological attractions seekers in summer tourists and geological attractions seekers in winter tourists, had same results. It means visitors were mainly young people.

Second, summer tourists have more motivations related to geotourism than winter tourists since 58% of them had geological and educational purposes for their trip. They came to this destination because of its main attraction. It is reasonable to claim that such tourists choose their preferred destinations with detailed and sufficient information in order to enhance their historical and scientific information. As it was mentioned, Lehaheng la Wetsi Caves and the Golden Gate High Lands National Park is one of unique examples of rock formations in the South Africa with ancient Khoi San paintings on the rock faces of the cave and some geological outcrops.

From this result, it can be said that summer tourists have more geotourism interests than do winter tourists. Whereas, summer tourists tend to have wider range of motivations and education is their main goal for coming to this place. They can enjoy from calm atmosphere during the summer months.

Third, as shown in the results of the summer tourist segmentation, cluster 1 mainly consisted of adults and children in the majority: since they have more time and opportunity to travel during the summer days most of the respondents in all clusters were employed which seem to reflect the fact that it is impossible for them to take a trip during the summer. In conclusion, the results of analyses to identify the characteristics of different monthly clusters
Offer distinctiveness of each segment and provide a good insight into understanding geotourism marketing. Thus, the research’s outcomes are expected to assist destination marketing practitioners who develop overall management of geotourism resources. For example, on the basis of the results of this study, one of the main goals for inter tourists was cost, which seems to reflect the fact that all prices are lower in winter so this group may respond negatively to pricing at the entrance or accommodation. On the other hand, the demographic differences among the monthly clusters could be very helpful in understanding who they are. Tourism managers should distinguish between the winter and summer tourist markets in their promotional strategies.

Future studies on the current topic are therefore recommended. Thus, further work is required to examine motivational clusters in other geotourism forms. In future investigations, it might be possible to use different motivational factors which were not applied in the current study.

References


Park, Y. (2009.) A study of market segmentation management in the hotel industry: A customer equity approach. Doctoral Thesis. The Faculty of the Graduate College of the


