

## Article

# The Role of Motivations in the Segmentation of Ecotourism Destinations: A Study from Costa Rica

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**Abstract:** In recent years, the interests and motivations of tourists for nature and leisure have increased. The objectives of this study include following: (i) identifying the underlying variables or motivational dimensions in ecotourism; and (ii) analyzing the demand segmentation in ecotourism. This empirical study was conducted in The Arenal National Park and The Caño Negro National Wildlife Refuge in Costa Rica, a country with ecological importance for ecotourism. The sample consisted of 310 surveys obtained in situ. For data analysis, factor analysis and a non-hierarchical K-means segmentation were performed. In the study, seven motivational dimensions in ecotourism were obtained, such as “Self-development”, “Interpersonal relationships and ego-defensive function”, “Nature”, “Building personal relationships”, “Rewards” and “Escape”. Moreover, the characteristics of the different segments are established according to their motivations; thus, there are three segments of ecotourists: “Reward and escape”, “Multiple motives” and “Nature”. The findings of this research provide management guides to public institutions and information for companies for developing products according to demand.

**Keywords:** ecotourism; motivation; segmentation; satisfaction; return



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## 1. Introduction

Ecotourism is an important type of tourism that has an annual growth of 5% globally, becoming the type of tourism that grows three times faster than tourism in general [1]. In this sense, the ecotourism destinations are important for their efficiency in protecting the environment, leisure, education, recreation and job creation [2]. Likewise, its importance increases, becoming one of the fastest-growing sectors in the tourism industry [3], because tourists seek relevant experiences, such as becoming closer to local communities, being involved in the conservation and care of natural resources and learning more about ecosystems [4]. Moreover, tourists are more environmentally conscious and more motivated to attend attractions and activities due to environmentally related content [5]. Motivation, in fact, has become a fundamental concept for travel behavior since it determines different aspects of tourism regarding the reasons for traveling, the specific destination and the overall trip satisfaction [6]. In this sense, the motivations are different for each tourist [7].

The empirical research carried out in the field has shown that motivations have emerged as a basic criterion for tourism segmentation [7–11]. Demand segmentation has also been studied extensively over time [12–17], and market segmentation has been used to identify market niches for tourism products and services [18].

Ecotourism and motivational-based segmentation of tourists has been the most reliable method for understanding the different segments on trips to protected areas [19,20]. Therefore, ecotourists should not be treated as a homogeneous group because their profiles, motivations and behavioral characteristics are not the same [20,21]. Moreover, market segmentation offers important advantages in ecotourism, considering that worldwide operators experience clear pressures to ensure that consumers receive the experiences they anticipate [22]; this is why demand segmentation helps managers to identify critical elements of visitor motivation and information channels that can be used to focus on desired customer groups, thereby improving sustainable development [23]. However, efficiency in specific promotion programs is hindered due to the lack of information on the different segments of ecotourism [18].

In this context, Costa Rica is a country where visitors seek ecotourism experiences since the Arenal National Park and the Caño Negro National Wildlife Refuge are located in Costa Rica. The Arenal National Park is home to the Arenal Volcano, an icon of Costa Rican nature. This park is of great importance for the conservation of the local water regime. It is visited for its hot springs and its strategic points for observing volcanic activity and the abundant fauna that inhabits the rain forest. On the other hand, the Caño Negro National Wildlife Refuge concentrates a great variety of species that are in danger of extinction. It is a wetland with migratory birds, mammals and endemic freshwater fish. Moreover, it has swamps and lagoons throughout the reserve.

Despite the fact that the motivations in ecotourism are different from the motivations in conventional tourism and taking into account the importance of ecotourism in the present. Due to few studies in the literature that analyze the motivations and segmentation of demand in ecotourism, this study aims to fulfill the following: (i) identify the underlying variables or motivational dimensions in ecotourism; and (ii) analyze the demand segmentation in ecotourism. The results of this study provide guidelines and action guides relative to government institutions for the creation of sustainable and efficient plans that benefit the destination and the community. Moreover, companies involved in ecotourism may develop products according to the motivations and segmentation of the demand found. In addition, this research study presents a contribution to the scarce existing literature in relation to the motivational dimensions present in ecotourism and the different segments that make up its demand.

## 2. Literature Review

### 2.1. Motivations in Ecotourism

Peoples' motivations are defined as psychological needs that play an important role in making a person feel a psychological imbalance that can be corrected through a travel experience [24,25]. Motivation, being an internal psychological need, drives tourists to fulfill their wishes [26]. In the same manner, it provokes, direct and integrates behavior and activity [27]. It is also understood as the set of needs that lead a person to participate in a tourist activity [28] and is one of the most important factors in decision making [29]. Visitors are aware of the motivations and their relationship with the experience at the destination [30]. Therefore, by studying motivations, the choice, preferences and needs of a tourist can be understood [31].

Concerning ecotourism, travelers have different reasons for visiting various nature-related attractions and destinations [32]. Page and Dowling [33] argue that some ecotourists travel to satisfy recreational and pleasure needs and to learn about specific areas. On the other hand, Holden and Sparrowhawk [34] highlight that the main motivations of ecotourists are to be physically active, learn about nature and meet people with similar interests. Lee et al. [35], in their research in South Korea, studied visitors at restored ecological parks, finding various factors related to motivations: building personal relationships, reward, escape, defensive ego function, appreciation of nature, self-development and interpersonal relationships. In another study, Panin and Mbrica [36] concluded that for ecotourists in the Republic of Serbia, the most important motivations are as follows: social activities,

sports and health activities, nature motivation and cultural and educational activities. Academics point out that the main motivations for ecotourism are related to the positive impact on health, sports and recreational activities, walking through the forest and seeing and enjoying nature. On the contrary, Iversen et al. [37] found, in their study, five motivational dimensions of ecotourists, which include active nature, status, social interaction, novelty and relaxation, coinciding with the results of Xu and Chan [38] who found that self-improvement, escapism from everyday life, relaxation and knowledge, destination setting, information and convenience and various fun activities are some of the motivational dimensions related to ecotourism. Kamri and Radam [39] found that the motivating factors for visiting a national park are as follows: social travel, challenge excursion, nature tour and getaway. From a geotourism and ecotourism perspective in Eastern Kazakhstan, Chlachula et al. [40] identified that the prospects of traveling to these places are enhanced by the presence of numerous prehistoric archaeological sites and historical monuments, documenting the rich multi-ethnic origin of this destination and the ancient Silk Road that runs through it.

On the other hand, Jeong, et al. [41] conducted a study at the Kuang Si waterfall and Konglor cave in the Lao People's Democratic Republic. In this area, they found four motivational dimensions: nature, related to the observation of scenic beauty, and being in and learning from the natural environment; health, which is related to physical health and abilities; escape, related to loneliness and getting away from other people; cohesion, related to doing things with a partner and being with family and friends. Another study is that of Carvache-Franco et al. [42], where six motivational dimensions were found in ecotourists: construction of personal relationships; self-development; interpersonal relationships and ego defense function; escape; appreciation of nature; and reward. Along the same lines, Chow et al. [43] carried out a study in the Ramsar wetland in Hong Kong and determined that the main motivations in nature tourism were as follows: escape from daily life, relaxation and physical and mental health.

In summary, research reveals that motivations in ecotourism can vary and include specific characteristics of each destination and the activities carried out there. However, there are also common dimensions that appear recurrently, such as nature, social activities, novelty and escape.

## 2.2. Segmentation in Tourism

Through segmentation, it is possible to decide which groups to target, to determine how resources are used efficiently and to evaluate different competitive strategies [44]. Segmentation is based on which market is made up of subgroups of people with different preferences and needs [45]. It can also help in identifying specific tourist groups, offer better tourist packages, increase benefits for destinations and, in turn, develop more efficient tourism policies [46]. In this sense, knowing the segmentation of tourists according to their motivations allows tourism providers to create valued products and services in the destination markets [47]; this is why motivation has been considered a fundamental element in research related to tourism segmentation [48,49].

Concerning segmentation studies in ecotourism, Perera et al. [50] identified four types of visitors relative to ecotourism areas in the forests of Sri Lanka, based on their behavioral and motivational characteristics: hikers, ecotourists, adventure tourists and selfish tourists. Similarly, Cordente-Rodríguez et al. [51] analyzed the visitors in the protected area of the Serranía Alta de Cuenca in Spain. This study found two groups: those who have only one motivation to enjoy nature and its resources; and those with various reasons, which have a combination of enjoying nature and gastronomy and visiting towns to learn about cultures and traditions. Likewise, Sheena et al. [52] in their study in Kinabalu Park, Sabah in Malaysia, found three segments: hard, the largest segment of ecotourists in the park willing to perform challenging activities with a desire to learn; gentle ecotourists, who prefer guided nature walks; and structured, mainly similar to the group of soft

ecotourists in their preference for the services obtained and their strong predilection for the learning component.

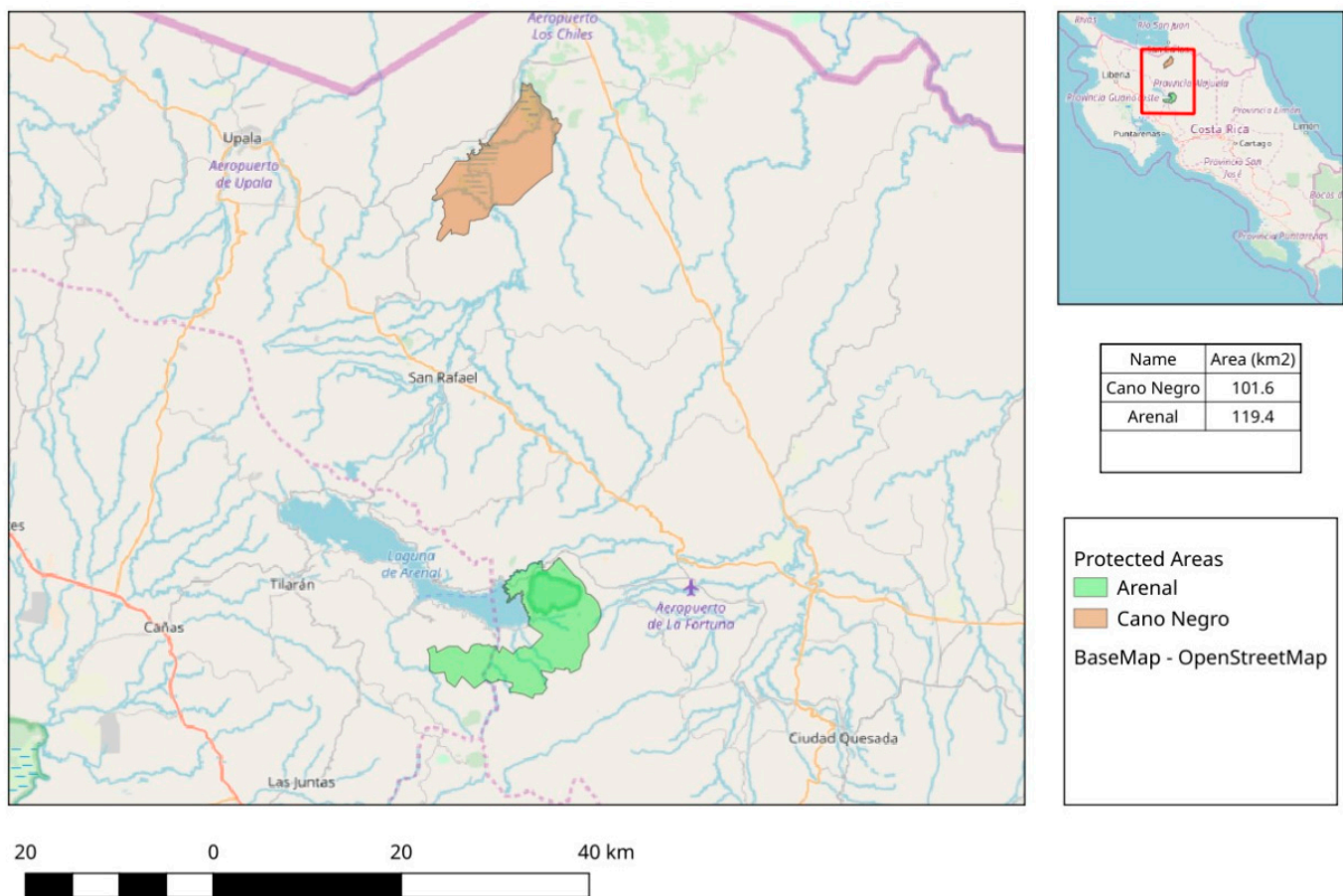
Barić et al. [53] conducted a study on the Paklenica National Park with tourists in Croatia, finding three segments: escapists, who want to escape and overcome loneliness and who have a moderate interest in nature; naturalists, whose enjoyment of nature is the most important thing; and ecotourists, who enjoy nature and novelty and possess educational interests or interests to learn from experiences, showing high motivations in the other variables. By contrast, Neuts et al. [54] investigated market segments causing economic impacts on ecotourism in Shiretoko of Hokkaido in Japan. The study determined four segments: landscape lovers, whose main reason for visiting are the landscape elements; bear watchers, motivated by bear watching and waterfall excursion; active explorers, who are those highly motivated tourists who prefer landscape elements and wildlife such as bear and bird watching; and organized tour groups, motivated by scenic elements and whale watching. On this topic, Jeong et al. [40] also found four segments: tourists who seek nature, tourists who seek nature and cohesion, tourists who want everything and passive tourists who seek nature.

Another study in natural areas is Taczanowska et al. [55] in Kasprowy Wierch within the Tatra National Park (Poland) who identified four segments: Group one, was motivated by recreation and admiration of mountain views. Group two (contemplative tourists and non-consumers) gave a variety of reasons for their visit, such as for recreation and for the landscape and the experience of nature, although they also affirmed the need for physical activity, health and well-being, experiencing silence and a non-stressful environment as secondary reasons. Group three was divided into two subgroups. The first included “occasional visitors” who were motivated to enjoy the scenery along with the use of the cable car. The second subgroup included “fitness visitors” that were motivated to participate in physical activities and to enjoy the surrounding landscapes. On the other hand, group four was motivated by the landscape and nature. In another investigation carried out in the protected areas in Vietnam by Phan and Schott [56], they found four segments: “Enthusiasts” who had a high level of motivation due to learning and experience factors. “Passive visitors” who had the lowest motivational levels due to learning and experience factors. “Active learners” who had a relatively high level for the learning factor and a very low level for the experience factor. “Novelty seekers” with a lower level for the learning factor and a high level for the experience factor.

In brief, the literature review shows that there are different segments in ecotourism depending on the characteristics and main attractions of the destination. However, there were recurring segments that had similar characteristics, such as the segment related to nature and the segment related to multiple motives.

### 3. Study Area

This study selected the Arenal Volcano National Park and Caño Negro Mixed National Wildlife Refuge protected areas since these areas fall under parks that are the most visited by foreign tourists arriving in Costa Rica, and their biodiversity makes them important destinations for ecotourism practice. Furthermore, in the technical visits performed beforehand, it was observed that all the items raised in the questionnaire could be applied in these areas (Figure 1).

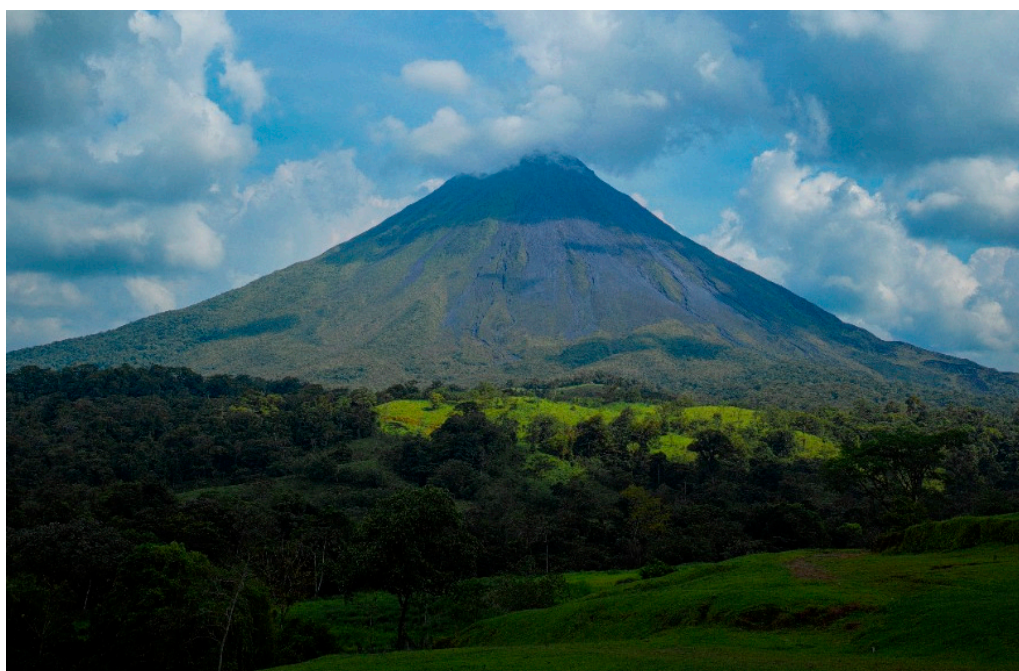


**Figure 1.** The geographic location of protected areas: Arenal Volcano National Park and Caño Negro National Wildlife Refuge (Costa Rica).

### 3.1. Arenal Volcano National Park

This park, created in September 1991, has an area of 12,124 hectares, and it is located in the Northern Region of Costa Rica, specifically in the Guanacaste Volcanic Mountain Range. This park is part of the San Carlos plains in the so-called “Energy Heart from Costa Rica”. The Arenal Volcano National Park has become one of the national parks of great relevance in Costa Rica. This park was named after the Arenal Volcano, a natural wonder with a height of 1670 m, characterized by being a conical-shaped stratovolcano, which makes it the main attraction of the park. Additionally, the park has a very rich water resource of an artificial nature that feeds the Arenal reservoir and supplies a hydroelectric power generation project. It is an attraction for the development of water activities of various kinds in the vicinity of the park.

The park has an unparalleled beauty of natural exuberance that also encompasses various tourist attractions in its surroundings, among which are trails located in the rainforest with outstanding species of wild animals such as deer, tapirs, pacas, peccaries, jaguars, monkeys and white-nosed coatis. There is also a wide variety of flora around the park, comprising its four life zones: tropical very humid forest (transition), montane rain forest, low montane rain forest (transition) and premontane very wet forest (transition). It is one of the nationally protected areas due to its geological and geomorphological value and also its complexity in the development of biological processes since it was formed from pioneer vegetation to a primary forest, which positioned it as a living laboratory of great wealth and attractiveness for references in the study of natural observation (Figure 2).

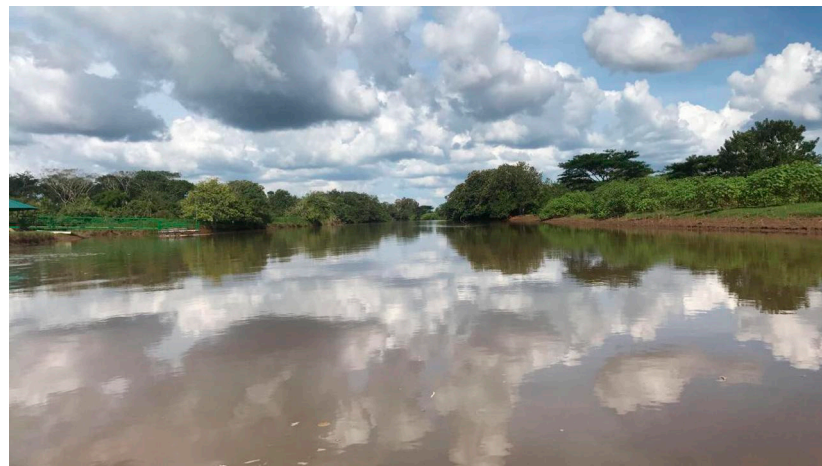


**Figure 2.** Arenal National Park.

### 3.2. *Caño Negro National Wildlife Refuge*

This park is a mixed-type refuge (a portion of land is part of the State and another part is privately owned) and, with an area of 10,171 hectares, it is one of the most outstanding wetland samples in Mesoamerica. The refuge is located north of Costa Rica, near the border with Nicaragua, and its creation derives from the national interest in the protection of wetlands that safeguard wildlife in the territory, mainly because the park houses unique wild-type and aquatic species.

A lagoon and a wetland of around 880 hectares feature among its main attractions in addition to the richness in wildlife that includes endangered species. It has also become a site that receives migratory birds and hosts a diversity of mammals and reptiles such as the endemic alligator and freshwater fish. The route to observe this diversity must include transportation in canoes or boats. During the dry season, in February and April, the river is reduced to channels, little lagoons and beaches that are frequented by various birds. The Ramsar Wetlands Convention cataloged this refuge as the third most important wetland worldwide and has identified this park as a sanctuary and “Wetland of International Importance” since 1991 (Figure 3).



**Figure 3.** Caño Negro National Wildlife Refuge.

#### 4. Methodology

The objectives of this study include the following: (i) identifying the underlying variables or motivational dimensions in ecotourism; and (ii) analyzing the demand segmentation in ecotourism. In order to achieve the objectives of this study, a questionnaire with three sections was designed. Its first part contained the sociodemographic and visiting characteristics of the respondents. The second part showed motivations on a scale of 34 items based on a Likert scale of five points, where 1 denotes nothing important and 5 denotes very important. The third section was made up of questions of general satisfaction, intentions to return and recommendations of ecotourism destinations. In the case of satisfaction, a five-point Likert-type scale was used, where 1 denotes not at all satisfied and 5 denotes very satisfied. In the case of return intentions, recommendations and saying positive things about the destination, a five-point Likert-type scale was used, where 1 denotes totally in disagreement and 5 denotes totally in agreement. The measurement elements used in this study were based on several previous investigations related to motivations in ecotourism [20,24,35,57–59]. The Cronbach's alpha reliability index of the motivations scale reached the value of 0.95, indicating a robust index for the scale.

We gathered the sample from national and foreign tourists who were visiting The Arenal National Park and The Caño Negro National Wildlife Refuge in Costa Rica. The surveys were applied during March and April 2019 to visitors who were within the protected areas. In base to the Costa Rican Tourism Institute ICT [60], the Arenal National Park received 27,209 national tourists and 92,592 foreign tourists in 2019. On the other hand, the Caño Negro National Wildlife Refuge received 7286 national tourists and 12,025 foreign tourists in 2019.

Convenience sampling was used according to the availability of tourists to answer and complete the questionnaire. The sample was collected by the authors of this study and students from the Technological University of Costa Rica who were attentive to adequately answer the tourists' concerns while they filled out the questionnaire. The population variability was estimated at 50% ( $p = q = 0.5$ ). Three-hundred and ten valid surveys were obtained and make up the sample size, with a margin of error of  $\pm 5.56\%$  and a confidence level of 95%. The collected data were tabulated and statistically analyzed by using the SPSS 22.0 program for Windows. Cronbach's Alpha coefficient reached the value of 0.95, which means a robust index for the scale. The data analysis was carried out in two stages: first a factor analysis was carried out, which allowed us to find the constructs that underlie the variables, providing information on the motivations that make up each factor. Furthermore, factor analysis is a technique that has been used in tourist segmentation research [61–63]. Specifically, a Varimax rotation was used to improve the presentation of the data. In the second stage, the K-means grouping method was used, which is used in tourism segmentation research [10,61]. The differences between groups were evaluated by

the Brown–Forsythe and Welch indices. For post hoc analysis, the Games–Howell test was used. Finally, chi-square analysis was applied to find the significant differences between the segments according to satisfaction and return intentions (Table 1).

**Table 1.** Research file.

Geographic Area	Arenal National Park and Caño Negro National Wildlife Refuge (Costa Rica)
Population	National and foreign visitors
Completion time	January to May 2019
Process	Convenience sampling
Confidence level	95%
Error range	+ / −5.56%
Valid questionnaires	310

## 5. Results

The sample included 79.4% of foreign tourists and 20.6% of national tourists. As for their origin, 36.8% were from Europe, and 32.3% were from North America. The female gender made up 54.8%, and the male gender made up 45.2%. The majority group was in the range between 21 and 30 years of age (38.7%), followed by the range between 31 and 40 years (21.3%). The majority included single (51.3%) and married individuals (36.1%). Regarding the level of education, 46.2% had a university education, followed by 28.4% with a postgraduate/master's/Ph.D. education. With respect to their professional activity, 27.4% were private employees, followed by 19.4% who were students and 18.4% who had a public job. The visit to the protected areas was carried out with the family 35.8% and with a partner 29.7%. As for the daily expenditure, it was mostly from USD 30 to 60 (31.6%) (Table 2).

**Table 2.** Sociodemographic aspects and characteristics of the trip.

Demographics	Categories	N = 310	%
Nationality	National	64	20.6
	Foreign	246	79.4
Origin	North America	100	32.3
	Europe	114	36.8
	South America	14	4.5
	Asia	12	3.9
	Rest of the world	70	22.6
Gender	Male	140	45.2
	Female	170	54.8
Age	<20 years old	40	12.9
	21–30 years old	120	38.7
	31–40 years old	66	21.3
	41–50 years old	41	13.2
	51–60 years old	35	11.3
	>60 years old	8	2.6
Marital status	Single	159	51.3
	Married	112	36.1
	Other	39	12.6
Level of education	Primary	12	3.9
	Secondary	67	21.6
	University	143	46.2
	Post-graduate/master's/Ph.D.	88	28.4



Table 2. Cont.

Demographics	Categories	N = 310	%
Professional activity	Student	60	19.4
	Researcher/scientist	10	3.2
	Businessman	50	16.1
	Private Employee	85	27.4
	Public Employee	57	18.4
	Retired	7	2.3
	Unemployed	10	3.2
	Other	31	10.0
Who you visit with	Alone	10	3.2
	With family	111	35.8
	With friends	81	26.1
	With a partner	92	29.7
	Other	16	5.1
Average daily expense	<USD30	52	16.8
	USD30.01–USD60.01	98	31.6
	USD60.01–USD90	63	20.3
	USD90.01–USD120	45	14.5
	USD120.01–USD150	23	7.4
	>USD150	29	9.4

### 5.1. Factorial Analysis

For this study, factor analysis was used as a technique to reduce the motivational variables in a few factors, which made it possible to interpret the results obtained with greater clarity. Principal component analysis was used as a technique for data extraction. In addition, the Varimax Rotation method was applied to obtain a clearer interpretation of the factors, with very high or low factor loads. For the number of factors that were used at the Kaiser criteria, with own values greater than 1.00, six factors were part of the solution and accounted for 69.49% of the total variance. The Cronbach's alpha of the factors ranged from 0.943 to 0.843, indicating a high internal consistency in each of the factors. The factor loads varied from 0.582 to 0.840; thus, all the load values exceeded the critical value of 0.50, suggested by Hair et al. [64]. The KMO index (Kaiser–Meyer–Olkin) was 0.92, which is an excellent value for the model. Moreover, the Bartlett sphericity test was significant at <0.05; thus, it was appropriate to apply the factor analysis. A five-point Likert scale was used, where “1” denoted little and “5” denoted a lot. Table 3 shows the results.

As can be observed in Table 3, the first factor or underlying variable is called “Self-development”, because it is related to the knowledge of one's ability and sense of self-confidence. Moreover, it is the most important factor. The second factor is named “Interpersonal relationships and ego-defensive function”, and it is related to contacting family and friends who live in other places, strengthening the relationship with the family and reflecting on the memories of the past. The third factor is labeled “Nature”, which is related to better appreciating nature and natural attractiveness. The fourth factor, named “Building personal relationships”, is related to meeting new people and meeting local people. The fifth factor is called “Rewards” and is related to exploring the unknown and experiencing new things. The sixth factor is named “Escape” and is related to being away from daily stress and escaping from the routine.

**Table 3.** Factorial analysis of the motivations.

Factor	Factor Loading	Eigen-Value	Variance Explained (%)	Cronbach's $\alpha$
Self-development		12.555	36.93	0.943
To know what I am capable of	0.779			
To gain a sense of self-confidence	0.777			
To feel inner harmony/peace	0.751			
To gain a new perspective on life	0.722			
To think about good times I have had in the past	0.704			
To be independent	0.691			
To understand more about myself	0.674			
To have a chance to get to know myself better	0.666			
Interpersonal relationships and ego-defensive function		4.462	13.12	0.911
To reminisce about time with parents	0.814			
To contact with family/friends who live elsewhere	0.807			
To strengthen the relationship with my family	0.767			
To reflect on past memories	0.747			
To feel that I belong	0.743			
To follow current events	0.595			
To join the social discussion	0.584			
Nature		2.030	5.97	0.852
To be close to nature	0.782			
For observation of flora and fauna	0.775			
To gain a better appreciation of nature	0.749			
For the natural attraction	0.744			
To learn about nature	0.684			
To observe its landscapes	0.678			
Building personal relationships		1.757	5.17	0.906
To meet new people	0.807			
To meet people with similar interests	0.803			
To meet the locals	0.792			
To be with others if I need it	0.698			

**Table 3.** *Cont.*

Factor	Factor Loading	Eigen-Value	Variance Explained (%)	Cronbach's $\alpha$
Rewards		1.566	4.60	0.851
To have fond memories	0.788			
To have fun	0.773			
To explore the unknown	0.733			
To experience new things	0.695			
To develop my personal interests	0.648			
Escape		1.257	3.70	0.843
To be away from daily stress	0.840			
To escape from the routine	0.773			
To be away from the crowds of people	0.715			
To avoid interpersonal stress	0.582			
Total variance extracted (%)			69.49	
Cronbach's $\alpha$ of all items				

Table 4 shows “offerings” that protected areas could develop in order to increase the levels of motivations found in ecotourism and, thus, facilitate the tourist's stay in these destinations.

**Table 4.** The motivations for demand and ecotourism.

Motivations of the Demand	The Ecotourism
Self-development	Tourist offerings that encourage personal development
Interpersonal relationships and ego-defensive function	Tourist offerings that facilitate the meeting of friends and family
Nature	Tourist offerings that improve activities in nature
Building personal relationships	Tourist offerings that encourage social interaction
Rewards	Tourist offerings with the greatest novelty
Escape	Tourist offerings that differ from the daily routine

### 5.2. Segmentation

A K-means non-hierarchical grouping analysis was used to perform a segmentation of the demand, increase the variance between typologies and decrease the variance within each group. In this study, the solution of the three clusters was obtained. A post hoc contrast was applied to find out if one mean differs from another for multiple comparisons. Since the critical level associated with the Levene statistic was less than 0.05, the Brown–Forsythe and Welch statistics were used, resulting in a critical level of the two statistics below 0.05; thus, we could reject the equality hypothesis of means and verify that the means of the motivational variables of the three clusters are not equal. The Games–Howell test was applied to contrast the significant differences between the different media. And a five-point Likert scale was used, where “1” denotes little and “5” denotes a lot. Table 5

shows the characterization of the groups.

**Table 5.** Motivation segmentations.

Variables	Cluster 1 Reward and Escape	Cluster 2 Nature	Cluster 3 Multiple Motives	Post Hoc
To be close to nature	4.4	4.5	4.8	All except 1–2
To gain a better appreciation of nature	4.3	4.2	4.7	All except 1–2
For the natural attraction	4.3	4.5	4.6	All except 1–2 and 2–3
For observation of flora and fauna	4.2	4.3	4.7	All except 1–2
To learn about nature	4.0	3.6	4.6	All except 1–2
To observe its landscapes	4.3	4.4	4.7	All except 1–2 and 2–3
To experience new things	4.3	3.9	4.7	All except 1–2
To explore the unknown	4.1	3.8	4.5	All except 1–2
To develop my personal interests	3.7	3.0	4.5	All
To have fond memories	4.1	3.8	4.6	All except 1–2
To have fun	4.2	3.9	4.7	All except 1–2
To meet new people	3.5	2.5	4.4	All
To meet people with similar interests	3.3	2.1	4.2	All
To meet the locals	3.6	2.7	4.4	All
To be with others if I need it	3.0	2.0	4.2	All
To have a chance to get to know myself better	3.2	1.7	4.5	All
To understand more about myself	3.3	1.6	4.4	All
To gain a new perspective on life	3.7	1.8	4.5	All
To think about good times I have had in the past	3.2	1.5	4.4	All
To know what I am capable of	3.3	1.5	4.5	All
To gain a sense of self-confidence	3.1	1.6	4.4	All
To feel inner harmony/peace	3.7	2.4	4.6	All
To be independent	3.2	1.7	4.5	All
To reminisce about times with parents	2.2	1.4	3.9	All
To contact with family/friends who live elsewhere	2.5	1.7	4.1	All
To feel that I belong	2.7	1.3	4.1	All
To strengthen the relationship with my family	2.6	1.9	4.1	All
To reflect on past memories	2.5	1.6	4.0	All
To avoid interpersonal stress	3.4	2.2	4.4	All
To be away from the crowds of people	3.6	2.5	4.3	All
To be away from daily stress	3.9	3.1	4.5	All
To escape from routine	4.1	3.2	4.4	All
To join the social discussion	3.2	1.7	4.2	All
To follow current events	2.9	1.7	4.2	All

In Table 5, it can be observed that the first group were visitors who had high motivations related to nature, exploring new things, experiencing the unknown, escape from the routine and being away from daily stress; that is why this group has been called “Reward

and escape". Moreover, this first group is related to the dimensions with nature, rewards and escape. The second group consists of visitors who had high motivations in aspects related to being close to nature, natural attractiveness, observing landscapes, observing flora and fauna and appreciating nature better, which is why these visitors have been called "Nature". At the same time, this second group is related to the "Nature" dimension. The third group is made up of visitors who have high motivation in all motivational variables; thus, this group has been called "Multiple motives". Moreover, this third group is related to the six dimensions mentioned above.

### 5.3. Relationship of Segments with Overall Satisfaction

The chi-square test was used to find a significant relationship between satisfaction and the different groups found. Moreover, a five-point Likert scale was used, where "1" denotes little and "5" denotes a lot. Table 6 shows the results.

**Table 6.** Segment relationship and Overall satisfaction.

Variable		Cluster 1 Reward and Escape %	Cluster 2 Nature %	Cluster 3 Multiples Motives %	Total	Sig.
Overall satisfaction	1	1.70	2.50		15.565	0.049
	2	2.50	4.90			
	3	6.80	7.40	4.60		
	4	44.10	43.20	32.40		
	5	44.9	42.00	63.00		
Total		100.00	100.00	100.00		

According to the results in Table 6, a significant relationship has been found between overall satisfaction and the three segments. The "Multiple motives" segment was the group with the highest percentage of visitors with high overall satisfaction (63%); thus, they were the group with the highest level of satisfaction compared to the others. This group is followed by the "Reward and escape" segment with 44.9% of its members with high overall satisfaction. Finally, the "Nature" group had the lowest percentage of overall high satisfaction compared to the others (42%).

### 5.4. Relationship of Segments with the Intentions to Return and Recommend Protected Areas

The chi-square test was used to find a significant relationship between the intentions to return, to recommend the destination and the different groups found. Moreover, a five-point Likert scale was used, where "1" denoted little and "5" denoted a lot. Table 7 shows the results.

**Table 7.** Relationship of segments with the intentions to return and recommend protected areas.

Variable		Cluster 1 Reward and Escape %	Cluster 2 Nature %	Cluster 3 Multiples Motives %	Total	Coefficient	Sig.
I have the intention to return to this protected area	1	10.20	23.50	4.70	11.80	37.985	0.000
	2	8.50	4.90	2.80	5.60		
	3	23.70	16.00	15.90	19.00		
	4	28.80	30.90	20.60	26.50		
	5	28.80	24.70	56.10	37.30		
Total		100.00	100.00	100.00	100.00		
I have the intention to recommend this protected area	1	1.70	8.60		2.90	26.398	0.001
	2	3.40	3.70	0.90	2.60		
	3	10.20	12.30	4.60	8.80		
	4	36.40	30.90	25.90	31.30		
	5	48.30	44.40	68.50	54.40		
Total		100.00	100.00	100.00	100.00		

As shown in Table 7, a significant relationship has been found between the intentions to return to these protected areas and the three segments ( $p < 0.01$ ). The “Multiple motives” segment was the group that had the highest percentage of members with high intentions of returning to these protected areas (56.15%). This segment is followed by the “Reward and escape” group with 28.8%. Regarding the intentions of recommending these protected areas, a significant relationship has been found between the intentions of recommending these protected areas and the three segments ( $p < 0.01$ ). The “Multiple motives” segment was the group with the highest percentage of high intentions to recommend these protected areas (68.5%), followed by the “Reward and escape” group with 48.3%.

## 6. Discussion

One of the objectives of this study was to identify the motivational dimensions of ecotourism. The six motivational dimensions found in this study are similar to those of the study by Lee et al. [35], who called them the following: self-development, interpersonal relationships, reward, construction of personal relationships, escape, defense function of the ego and appreciation of nature. In the same manner, the six dimensions identified in this study are similar to those of Iversen [37] et al. The academics found the following as motivational dimensions: status, novelty, relaxation, active nature and social interaction. The difference is that, in the present study, the “Self-development” dimension has emerged, which is related to personal growth. Moreover, the dimensions found in this study are similar to those of Xu and Chan [38], who found the following dimensions: self-improvement, relaxation and knowledge, escapism from everyday life, destination scenario, information and convenience and various activities for fun. However, in this study we have found other dimensions, such as the so-called “Building personal relationships” related to visitors motivated to meet new people; moreover, the “Interpersonal relationships and ego-defensive function” dimension is related to visitors motivated by family relationships and current events. Furthermore, the dimensions identified in this study are similar to three dimensions found by Kamri and Radam [39], which are called the following: social trip, nature tour and getaway outing. However, this research has found the motivational dimension “Self-development” that is related to personal growth. Likewise, the dimensions of this study are similar to the study carried out by Jeong et al. [41], who found health, nature, cohesion and avoidance as motivational dimensions. However, the study of these academics did not take into account the motivations related to the reward, which were analyzed in this study. In the same manner, this study is similar to that of Carvache-Franco et al. [42], who determined six motivational dimensions in ecotourism: escape, self-development, construction of personal relationships, interpersonal relationships and the role of defense of the ego, reward and appreciation of nature. Instead, this study has some similarities to that of Chow et al. [43], who found that the main motivations in nature tourism were the following: relaxation, escape from daily life and physical and mental health. However, these authors did not find the dimensions or motivational factors but carried out the analysis for each motivational item. In this perspective, these findings support other previous research related to the motivations of ecotourists [20,59,65].

Another objective of this research study was to analyze the segmentation of demand in ecotourism. The “Nature” segment of the present study, which had high motivations in aspects related to nature, is similar to the “Nature” segment found in the studies by Cordente-Rodríguez et al. [51], with high motivations for nature. In the same manner, it is similar to the “Naturalistic” segment found in the study by Barić et al., [53]. Furthermore, it is similar to segment four (nature and landscape) found by Taczanowska et al. [55], which includes being highly motivated by nature and its landscapes. Therefore, for the “Nature” segment of this study, the enjoyment of nature is the most important. The segment of “Multiple motives” found in this research, with high motivation in all motivational variables, is similar to the segment called “Multiple motives” found in the study by Cordente-Rodríguez et al. [51], who also detailed high motivations in all motivational variables. Moreover, it is similar to segment two (contemplative tourists and non-consumers) found

by Taczanowska et al. [55], with a wide variety of motivations for one's visit. Furthermore, it is similar to the "Enthusiasts" segment found by Phan and Schott [56], with a high level of motivation in all factors.

However, in this study, we have found the "Reward and escape" segment, which differentiates this research from the study by Cordente-Rodríguez et al. [51]. Although it is slightly similar to the "Escapists" segment of the study by scholars Barić et al. [53], who presented high motivations to overcome and escape from loneliness, it did not have motivations related to novelty. It is also slightly similar to the "Nature and novelty" segment found by Iversen et al. [37], who presented motivations dimensions related to nature and novelty; however, it did not have motivations related to escape. Moreover, it is similar to the segment "Novelty seekers" found by Phan and Schott [56], with a high level due to the experience factor. However, in the study of these authors, all the motivations related to "Reward" and "Escape" were not taken into account. It is, therefore, recommended to adapt a range of products or services to this new segment found (Reward and escape). Thus, the contribution of this study to the scientific literature is to have found this new segment with different characteristics in ecotourism. Furthermore, it contributes to the literature by identifying the "Multiple motives" segment as the most satisfied group and with the highest level of loyalty in executing in relation to the others.

Among the theoretical implications, the study shows the finding of several motivational dimensions related to ecotourism, including the following: Self-development, Interpersonal relationships and ego-defensive function, Nature, Building personal relationships and Rewards and Escape. These motivations are similar to those found in other previous studies [37–41,43,47]. In addition, there are three segments in ecotourism. One is the "Nature" segment [51,53,55], the "Multiple motives" segment [51,55,56,66] and the third is a new segment called "Reward and escape", with motivations related to exploring the unknown and escaping from the routine. This new segment presents different motivations than the segments found by other authors. In addition, this new segment includes high intentions to return and recommend ecotourism destinations; thus, its study in the literature is important. This new segment is the theoretical contribution of this study to the academic literature on ecotourism.

## 7. Conclusions

Motivations are needs that influence the behavior of tourists; thus, they are very important factors in the decision-making process. Moreover, they are necessary for ecotourism to find segments that provide information and to facilitate the development of products adapted to the specific characteristics of each group. In addition, through segmentation, more efficient marketing strategies are developed that bring with them a higher level of tourist satisfaction, higher rates of return and greater positive impacts for the community and the destination.

There are six motivational dimensions in ecotourism: Self-development, Interpersonal relationships and ego-defensive function, Nature, Building personal relationships and Rewards and Escape. On the other hand, there are three groups of visitors in ecotourism: The first group is "Reward and Escape", which has high motivations related to exploring the unknown and escaping from the routine. The second group is "Nature", possessing high motivations for better appreciating nature. The third group is "Multiple motives", with high motivations in all motivational variables; thus, it is a segment that includes a variety of reasons to visit the destination. On the other hand, the "Multiple motives" group is the segment with the highest levels of satisfaction, return intentions and intentions to recommend ecotourism areas.

Among the practical implications, operators and companies related to the tourism sector can plan more efficient strategies adapted to the specific needs of each segment in order to improve the satisfaction of tourists and the intentions of returning to the destination, providing greater benefit to the tourists, to the sustainable development of the destination and to the community. Regarding the segments found, for the "Reward and escape" seg-

ment, new activities should be implemented, which provide new experiences for tourists. Instead, for the “Nature” segment, activities related to nature should be implemented, such as the enjoyment and observation of flora and fauna, the learning of nature, the observation of landscapes and other recreational activities related to nature. While for the “Multiple motives” segment, activities related to several motivations should be encouraged at the same time, which promote self-development, social interaction between tourists and the community, escape from routine, enjoyment of nature and novelty. On the other hand, the level of satisfaction for the “Multiple motives” segment should be maintained and, if possible, improved. Likewise, strategies to improve the level of satisfaction in the segments “Reward and escape” and “Nature” should be carried out, which could increase the return of tourists to ecotourism destinations and, thus, benefits the destination and the community. Additionally, this research study will help managers use the information in order to better plan for zoning, recreational use and service design in ecotourism zones. It is also important to mention that institutional aspects, both governmental and social, must be organized and planned to improve the development of ecotourism, improve the quality of services and, thus, benefit the destination and the community and influence the sustainable use of the natural resources.

Finally, regarding the limitations, we have the temporality in which the study was carried out. In terms of future research directions, we propose investigating offerings in ecotourism that are adapted to the demand segments.

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