Articles

Multicriteria evaluation of the tourist attractions of the Jimbura parish, Amaluza Canton, Loja-Ecuador 2020

Evaluación Multicriterio de los atractivos turísticos de la parroquia Jimbura, Cantón Amaluza, Loja-Ecuador 2020

Sanchez Ruiz Jefferson*
Larrea Silva Jhohana*
Pardo Villalta Yomar*

JOURNAL OF BUSINESS and entrepreneurial studies
ISSN: 2576-0971

Journal of Business and entrepreneurial
April - June Vol. 5 - 2 - 2021
http://journalbusinesses.com/index.php/revista
e-ISSN: 2576-0971
journalbusinessentrepreneurial@gmail.com
Receipt: 06 March 2020
Approval: 03 december 2020
Page 82 - 96

ABSTRACT

Research has shown that multi-criteria evaluation is a tool that helps to assess intrinsic and extrinsic criteria so that qualitative and quantitative approaches are more real when it comes to attractive tourist evaluations, unlike other methodologies, the objective of the research is assess each attraction and prioritize in a hierarchical order when developing tourism planning. Given the nature of the study, a methodology based on multi-criteria evaluation was used where it is evaluated through criteria and qualitative and quantitative approaches. The results of the investigation showed that the lake system of lagoons of the Yacuri National Park has the greatest potential for this parish and that the parishization festival is partly cultural, they are essential due to their representative characteristics. This research is strategic for the parish and cantonal government when planning and developing efforts to develop infrastructure.

Key words: *Multi-criteria evaluation, tourist potential, tuorist attractions, Jimbura parish*

RESUMEN

La investigación ha demostrado que la evaluación multicriterio es una herramienta que ayuda a valorar criterios intrínsecos y extrínsecos de manera que los enfoques cualitativos y cuantitativos son más reales a la hora de evaluar atractivos turísticos, a diferencia de otras metodologías, el objetivo de la investigación es valorar cada atractivo y priorizar en orden jerárquico al momento de desarrollar la planificación turística. Dada la naturaleza del estudio se empleó una metodología en

* *Magister en Planificación Territorial y Gestión Ambiental, Universidad Técnica Particular de Loja, Loja-Ecuador, jefferson.sanchez.bcn@gmail.com, jjsanchez33@utpl.edu.ec, https://orcid.org/0000-0002-1946-9795*
* *Magister en Gerencia de proyectos para el desarrollo, Universidad Nacional de Loja, Loja-Ecuador, jhohana.larrea@unl.edu.ec, https://orcid.org/0000-0003-3472-363X*
* *Magister en Auditoria Integral, Universidad Nacional de Loja, Loja-Ecuador, yomarrocio@hotmail.com, https://orcid.org/0000-0002-3125-1246*

base a la evaluación multicriterio donde se evalúa a través de criterios y de enfoques cualitativos y cuantitativos. Los resultados de la investigación demostraron que el sistema lacustre de lagunas del Parque Nacional Yacuri tiene mayor potencial para dicha parroquia y en la parte cultural la fiesta de parroquialización, son esenciales por sus características representativas. Esta investigación resulta estratégica para el gobierno parroquial y cantonal a la hora de planificar y desarrollar esfuerzos en cuanto a desarrollar infraestructura.

Palabras clave: Evaluación multicriterio, atractivos turisticos, potencial turistico, parroquia Jimbura

INTRODUCTION

As already mentioned in other research, Ecuador in recent years has gone through various periods in relation to "political, economic, environmental and social changes, based on the current legal framework, taking as a basis the 2008 Constitution, the National Plan for Good Living and the New Productive Matrix" Loor Bravo et al. (2018). In this context for Delgado del Carpio de Escalante (2020) and Rivera Guerrero (2019) it is of vital importance to develop tourism with a view to sustainable development through tourism planning. For Rivera Guerrero, the sustainable development of tourism should be framed in the capacity to satisfy the needs of individuals without putting it at risk. On the other hand, in the same line, Delgado del Carpio de Escalante, sustainable development is the use of resources framed in the balance of both the visitor's experience and the quality of life of the host community and the care of the environment. In order to develop tourism in the territory at the national, regional and local level, it is necessary to consider what Razquin (2002) mentions (Quoted in López Palomeque, 2007) the issue of the disjunction that can occur between theory and practice given that it is necessary to consider the "normative" treatment and the "function of administrative intervention through which public administrations regulate a certain area of activity with a certain character of globality and mark the public policies to be developed within these areas".

For López Franco (2018) and Plumed Lasarte et al., (2018) (Cited by Sanchez Ruiz et al., 2019, p. 123) state that tourism today has grown at an accelerated rate. Therefore in this context of tourism planning for Plumed Lasarte et al., 2018, "we must focus from the edges that promotes tourism in an as yet unplanned space". All this Lopez Franco mentions that it develops to the extent that the growing demand has become more demanding and involves developing strategies, methodologies for tourism planning.

Multicriteria Evaluations (MCA) for Joo Nagata & Alvarado Peterson, (2013) and Barredo (1996) (Cited in Ceballos Silva & López Blanco, 2010, p. 109) mention that they are important tools for planning. For Nagata & Alvarado Peterson they are a set of instruments that allow evaluating different alternatives in order to reach concrete decisions. However, for Barredo, CME is a process based on a set of concepts, models and methods to describe, evaluate, rank, choose or reject alternatives, based on a valuation expressed by preference intensities, according to different criteria.

For Cabello (2017) and Chakhar (2003) (Cited in Ramirez , 2007, p. 36). They deal with multicriteria decision techniques that constitute a rational and objective tool. Both authors recognize that the multicriteria matrix allows the decision-maker to compare different alternatives. For Cabello, it allows a better understanding of the decision processes underlying systemic processes. Chakhar (2003), however, this procedure or technique allows the decision-maker to compare different alternatives based on the weights assigned.

In the same line for Toskano (2005) (Quoted in Grajales Quintero, Serrano Moya, & Hahn Von-H, 2013, p. 299), multicriteria evaluation and decision methods comprise a set of qualitative and/or quantitative criteria, which may be in conflict, so it is necessary to optimize several simultaneous objective functions and have the participation of multiple decision makers and experts, which from rational and consistent evaluation procedures, allow making decisions on problems that contain intangible aspects to be evaluated. (Grajales Quintero, Serrano Moya, & Hahn Von-H, 2013).

The use of the multi-criteria methodology is little applied in the tourism field as evidenced in the literature reviews carried out, it can be stated that it is more widely used to evaluate environmental, health and territorial problems, among others. (Franco Maass et al., 2009). "This methodology has been widely used in different environmental, social, economic and cultural sciences" (Joo Nagata & Alvarado Peterson, 2013, p. 144). Vargas Isaza mentions that when dealing with complex real-world problems, this technique is important because it addresses different points of view in relation to conflicts and leads to decision-making and participation on the part of the affected agents, since this technique uses different dimensions of analysis: socio-cultural, economic, ecological-environmental or others, Munda (2002) (Cited in Vargas Isaza, 2005, p. 88). (Castellanos Menjura , 2015)

Multicriteria evaluation are very important methodological tools to analyze the intrinsic and extrinsic criteria in tourism (Enríquez Martínez et al., 2010), therefore these techniques allow a better qualitative and quantitative assessment resulting in a better selection of the elements of study. These techniques are essential for tourism planning since "planning does not only respond to a single design, it inevitably depends on the characteristics of the territory and its objectives" Yumisaca et al, (2019).

Based on the above, the research question was how it affects (EMC) in the use of the resources of the Jimbura parish. Given that in terms of planning, the multi-criteria evaluation is strategic for the authorities to take this study as a reference and join efforts in the implementation of products, infrastructure and services in the natural and cultural attractions that contain greater tourist vocation.

The results of the EMC research in Jimbura parish have shown that there are three tourist attractions with hierarchies one and two, with local and regional diffusion. The attractions that have local and regional diffusion are attractions that need accessibility infrastructure and tourist services. In addition, security is essential for tourists who come to this place to have a better appreciation of the destination to visit.

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

It is concluded that the research will be a great contribution for the territorial planning of the Jimbura parish since there is no research in (EMC). In addition, the research wants to randomly generalize other researches that can contribute to the parish and the development of tourism.

MATERIALS AND METHODS

The processes of methodology and research as mentioned by Cruz Garcí & López Ospina (2020) "start from the premises and a series of inquiries that allow to respond to the processes of the formulation of materials and methods".

In the present research, a bibliographic search of the tourist attractions of the Jimbura parish was carried out, and through in situ work, a synthesis of the information was collected in a field notebook by means of direct observation and interviews. To develop the diagnosis, ranking and weighting of the intrinsic and extrinsic criteria, the multicriteria evaluation matrix of tourist attractions and part of the methodology of the Ministry of Tourism of Ecuador (2017) were used.

In addition, a search chain of multicriteria evaluation research in different branches of science was carried out. The number found in the search chain was 154 articles related to the topic. The instrument for the collection of information was considered to be developed on the basis of the multicriteria evaluation, which consists of intrinsic and extrinsic criteria. Table 1 shows the criteria established with qualitative and quantitative approaches.

Table 1 *Criteria for the evaluation of tourism resources.*

Intrinsic criteria			
Type of resource	**Criteria**	**Attribute**	**Description**
Aquatic (water currents)	a) Features	a1) Width	Meters
		a2) Transparency	Crystalline (C) Semiturbia (S) Turbid (T)
		a3) Visible extension	1 to 3 mts. (A) 3 to 6 mts. (B) 6 to 10 mts. (C) More than 10 mts. (D)
	b) Additional attraction	b1) Fauna	Yes (S) No (N)

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

Cultural manifestations	c) Features	c1) Traditional state	Excellent (E) Good (B) Bad (M)
		c2) Dissemination	Local (L) Regional (R) National (N) International (I)
		c3) Community participation	Yes (S) No (N)
	d) Promotion	d1) Means of promotion	Web (W) Television (T) Radius (R) Magazines (Re)

Extrinsic criteria

Criteria	Attribute	Description
a) Physical access	e1) Distance	Kilometers
	e2) Time	Minutes
b) Appreciation possibilities	f1) State of conservation	Excellent (E) Good (B) Regular (R) Bad (M)
	f2) Quality of the environment	Optima (O) Good (B) Regular (R) Low (Ba)
	f3) Fragility	Very high (MA) High (A) Moderate (M) Low (B)
	f4) Contamination	Yes (S) No (N)
c) Infrastructure and services	g1) Signaling	Sufficient (S) Some (A) Insufficient (I) None (N)
	g2) Equipment	Sufficient (S) Some (A) Insufficient (I) None (N)
	g3) Recreational facilities	Recreational facilities (A) Elements subject to recreation (M)

		No recreational site (B)
	g4) Activities	Total number of activities
d) Security	h1) Surveillance	Very safe (M) Insurance (S) Moderate (Mo) Insecure (I)

Elaborated from (Enríquez Martínez, Osorio García, Franco Maass, Ramírez de la O , & Nava Bernal, 2010)& (Franco-Maass, Osorio García, Nava Bernal, & Regil García, 2009; Castellanos Menjura, 2015).

The procedure was based on the construction of the hierarchy table of the tourist attractions of the Jimbura parish, and the evaluation matrix of the intrinsic criteria, decision matrix with normalized values and linear combination of the attributes.
For data processing, values were given to each of the tourist attractions according to Table 1. Intrinsic and extrinsic criteria for the evaluation of tourism resources.

RESULTS

During the field work it was possible to identify 3 natural sites of interest and 5 cultural manifestations in the Jimbura parish. Based on the study, it is evident that the hierarchy of natural sites corresponds to category II, given that the promotion and dissemination of these natural sites are representative at the regional level. On the other hand, the cultural manifestations represent category I because these festivities are known at the local level. These criteria are based on the methodology of the Ministry of Tourism of Ecuador (2017).

Table 1*Hierarchy of the natural and cultural tourist attractions of Jimbura parish*

Tourist Attraction	**Category**	**Type**	**Subtype**	**Hierarchy**
Black lagoon	Natural Attractions	Lake Environments	Lagoon	II
Duck Lagoon	Natural Attractions	Lake Environments	Lagoon	II
Bermeja Lagoon	Natural Attractions	Lake Environments	Lagoon	II
Cultural Events	**Category**	**Type**	**Subtype**	**Hierarchy**

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

International bridge	Cultural Events	Historic	Civil architecture	I
Stone Mills	Cultural Events	Technical and scientific achievements	Agricultural and fishing centers	I
Feast in honor of the Virgen del Carmen	Cultural manifestation	Cultural and popular heritage	Religious festivals, traditions and popular beliefs	I
Parish festivals	Cultural manifestation	Cultural and popular heritage	Religious festivals, traditions and popular beliefs	I
Biker parties	Cultural manifestation	Cultural and popular heritage	Religious festivals, traditions and popular beliefs	I
Our Lady of Mount Carmel Church	Cultural manifestation	Cultural and popular heritage	Religious festivals, traditions and popular beliefs	I

As we can see in Table 3 in the Jimbura parish, aquatic resources and cultural manifestations are analyzed. As for what refers to the lagoons are born of a lake system that each lagoon is fed from the other, also has unique characteristics in the paramo landscape with shrub vegetation such as Achupallas, Bromeliads, chuquiragua, white cedar, romerillo and a lot of mosses, in addition to its vast fauna has made it part of a National Park in conservation. In the cultural part both in the infrastructure and in its diffusion where these events take place, it can be mentioned that they are in good condition and it is of local character that is carried with the participation of the adjacent communities.

Table 3 *Construction of the intrinsic criteria for analysis*

Resources	**Criteria**			
Aquatics (Water currents)	**Width**	**Transparency**	**Visible extension**	**Fauna**
	a1	**b1 (1)**	**b2 (2)**	**b3 (3)**
Black lagoon	200 m Approx.	C	D	S

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

Red lagoon	180 m Approx.	S	D	S
Duck Lagoon	120 m Approx.	C	D	S
Cultural Events	**Traditional State**	**Broadcast**	**Community participation**	**Media and communications**
	c1 (4)	**c2 (5)**	**c3 (6)**	**d1 (7)**
International bridge	B	L	S	W
Stone mills	B	L	S	W
Feast in honor of the Virgen del Carmen	B	L	S	W
Jimbura Parish Festival	B	L	S	W
Biker parties	B	L	S	R
Our Lady of Mount Carmel Church	B	L	S	W

[1]	[2]	[3]	[4]	[5]	[6]	[7]
C= Crystalline	C= 10m or less	S= Yes	E= Excellent	L= Local	S= Yes	W= Web
S= Semiturbidity	D= more than 10m	N= No	B= Good	R= Regional	N= No	T= Television
T= Turbid			M= Bad	N= National		R= Radius
				I= International		Re= Magazines

Own elaboration based on (Franco Maass et al., 2009).

Similarly, based on the variables already established and the field work, it has been possible to create the matrix with the extrinsic criteria for each of the resources of the Jimbura parish.

In terms of aquatic resources, we see that they are the resources with the greatest distance and time from the closest locality to service and security infrastructure, despite this, these resources have greater possibilities of appreciation and hierarchical ranking.

On the contrary, cultural events have a greater infrastructure of services and security, but do not have a high power of appreciation.

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

Table 4 *Characterization of the extrinsic criteria of the attractions of the Jimbura parish*

Resources	**Criteria**										
	Physical access		**Appreciation possibilities**				**Infrastructure and services**				**Security**
Aquatics (Water currents)	**e1**	**e2**	**f1** (1)	**f2**(2)	**f3**(3)	**f4**(4)	**g1**(5)	**g2**(5)	**g3**(6)	**g4**	**h1**(7)
Black lagoon		I	E	O	M	S	S	I	B		S
Red lagoon			R	O	M	S	N	I	B		Mo
Duck Lagoon	I		E	B	M	S	S	I	B		S
Cultural manifestations											
International bridge			B	B	B	S	A	A	B	I	S
Stone mills			R	B	M	S	N	N	M		S
Feast in honor of the Virgen del Carmen	0	0	B	B	B	S	N	S	M		S
Jimbura Parish Festival	0	0	E	B	B	S	N	S	M		S
Biker parties	0	0	B	B	M	S	N	S	M		S
Our Lady of Mount Carmel Church	0	0	B	B	M	S	N	S	M		S

[1]	[2]	[3]	[4]	[5]	[6]	[7]
E= Excellent B= Good R= Regular M= Bad	O= Optimum B= Good R= Regular Ba= Low	MA= Very high A= High M= Moderate B= Low	S= Yes N= No	S= Sufficient A= Some I= Insufficient N= None	A= Recreational facilities M= Elements susceptible to recreation B= No recreational site	M= Very secure S= Insurance Mo= Moderate I= Insecure

Own elaboration based on (Franco Maass et al., 2009).

Once the criteria had been tabulated, it was possible to continue with their transformation into a scale of 1 to 10. The value of each attribute represents the degree

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

to which each alternative meets the valuation objective, with 10 being the maximum value that can be awarded.

Table 5 *Decision matrix with normalized values of the attractions of Jimbura parish.*

RESOURCES	**INTRINSIC ATTRIBUTES**												
Aquatics (Water currents)	**va l**	**vb l**	**vb2**	**vb 3**	**Total**	**Average**	
Black lagoon							
Red lagoon							
Duck Lagoon						9.75	3.9
Cultural manifestations	**vc l**	**vc 2**	**vc3**	**vd l**	**Total**	**Average**	
International bridge			5			5.75	2.3
Stone mills						6.5	2.6
Feast in honor of the Virgen del Carmen						7.75	3.1
Jimbura Parish Festival							3.2
Biker parties						7.75	3.1
Our Lady of Mount Carmel Church					28		2.8

RESOURCES	**EXTRINSIC ATTRIBUTES**												
Aquatics (Water currents)	**ve l**	**ve 2**	**vf l**	**vf 2**	**vf 3**	**vf 4**	**vg l**	**vg 2**	**vg 3**	**vg 4**	**vh l**	**Total**	**Average**	
Black lagoon								5				91	8,27	4,96
Red lagoon							5						7,09	4.25
Duck Lagoon								5					7,73	4.64
Cultural manifestations	**ve l**	**ve 2**	**vf l**	**vf 2**	**vf 3**	**vf 4**	**vg l**	**vg 2**	**vg 3**	**vg 4**	**vh l**	**Total**	**Average**	
International bridge							5	5	5				6.82	4.09
Stone mills							5	5	5				6.82	4.09

Journal of Business and entrepreneurial studies
ISSN: 2576-0971
http://journalbusinesses.com/index.php/revista

Feast in honor of the Virgen del Carmen	8.55	5.13
Jimbura Parish Festival	8.64	5.18
Biker parties	8.45	5.07
Our Lady of Mount Carmel Church	8.55	5.13

Own elaboration based on (Franco Maass et al., 2009).

Once the matrix of normalized values had been created, the criteria for each type of resource were converted and equalized, which made it clear which of the inventoried resources had the greatest tourism potential. For this purpose, the weighting established by Franco (2009) was used, which assigns a value of 40% to intrinsic criteria and 60% to extrinsic criteria, percentages that are multiplied by the average or weighted sum of each type of criterion. Finally, Table 6 shows the valuation obtained, which facilitates the ranking of the resources in order of preference for tourism development.

Table 6 *Decision matrix of normalized values of the attractions of Jimbura parish.*

RESOURCES	Linear Sum of Intrinsic Resources	Linear Sum of Extrinsic Resources	Weighted Sum of Intrinsic Criteria	Weighted Sum of Extrinsic Criteria	Final value of weights	Order of Preference
Black lagoon		91		4,96	8,96	1
Red lagoon				4.25	8,25	
Duck Lagoon			3.9	4.64	8,54	
International bridge			2.3	4.09	6,39	
Stone mills			2.6	4.09	6,69	
Feast in honor of the Virgen del Carmen			3.1	5.13	8,23	
Jimbura Parish Festival			3.2	5.18	8,38	
Biker parties			3.1	5.07	8,17	5

Our Lady of Mount Carmel Church	28	2.8	5.13	7,93

Own elaboration based on (Franco Maass et al., 2009).

Once the matrix of values was obtained, it can be observed that the Black Lagoon has the greatest tourism potential with a value of (8.96), followed by the Laguna de los Patos with (8.54), and in third place with the greatest tourism potential is the Parochialization Festival with a value of (8.38). These three resources have greater tourism potential, given as a recommendation to those responsible for tourism at both the parish and cantonal level should take reference for the construction of a planning based on the construction of infrastructure, dissemination, security and other criteria.

DISCUSSION

For (Arciniega Camarena et al., 2016) mentions that the scarce vegetation in terrestrial and aquatic resources can influence the appreciation of the observer, given to this conclusion to mention that it depends on the landscape that composes it as evidenced in the case of the lagoons of the Jimbura parish even though its vegetation is shrubby it is very attractive because of the landscape that surrounds it such as the system of lagoons and rocks with volcanic peaks.

The multicriteria evaluation methodologies for tourist attractions do not respond to a unified matrix, given that the nature of the researchers have different ways of performing the weighting matrix. For Perez Vivar et al., (2014) and (Urióstegui Flores, Villaseñor Franco, & Reyes Nateras (2018) although they perform a multicriteria evaluation they use different weightings, criteria and elements in their research. Perez Vivar performs a weighting of tourism activities to determine the tastes and preferences in the qualities that a space should possess to perform a specific activity. On the contrary (Urióstegui Flores et al., 2018) analyzes the tourist attributes of the city as conservation of urban heritage (architecture, historical places and cultural manifestations such as traditional and religious festivals). It also analyzes public safety, surveillance and the infrastructure of tourist services.

Following in the same line of (EMC) (Vázquez Martínez & Vázquez Solís, 2017). Assigns values in each of the alternatives of the criteria from (01 to 07). Meanwhile for (Franco Maass *et al.,* 2009) establishes a range of (0 to 10) weightings. In this research we have taken as a reference the one that uses the weightings of (0 to 10) since there is a greater number of articles and gives greater emphasis to the researcher's criterion.

CONCLUSIONS

The research, based on the methodology of the Ministry of Tourism of Ecuador, was able to establish 8 attractions with possible tourist benefits, in addition to the resource they belong to, natural site and cultural manifestation, type, subtype and hierarchy.

As mentioned in the research, tourism methodologies in Ecuador are somewhat subjective at the discretion of the researcher since impartial parameters are not

established at the time of establishing qualitative and quantitative analyses, given that this research uses a methodology that is the most impartial and strategic for the application of tourism territorial planning.

The bibliographic review of multicriteria evaluation research in the Jimbura parish is nonexistent given that for many years, since 2004, work has been done using the methodology of the Mintur del Ecuador.

REFERENCES

Arciniega Camarena, D., Osorio García, M., & Regil García, H. (2016). Evaluation of the Natural Tourism Resources of the Municipality of San Pedro Lagunillas, Nayarit, Mexico, from the multicriteria methodology. *Cuaderno Virtual de Turismo, 16* (3), 43-60. doi: http://dx.doi.org/10.18472/cvt.16n3.2016.0987

Cabello, A. (2017). *multicriteria decision methods and their applications.* Degree thesis. University of La Rioja, Logroño. Retrieved from https://biblioteca.unirioja.es/tfe_e/TFE002504.pdf

Castellanos Menjura , C. (2015). *"EVALUATION OF TOURIST RESOURCES WITH ECOTOURISTIC VOCATION AND CHARACTERIZATION OF TOURISTIC DEMAND IN THE PUBLIC USE AREAS OF THE PROTECTIVE FOREST RESERVE OF CERRO QUININÍ (TIBACUYCUNDINAMARCA) (Degree thesis).* Francisco José de Caldas University, Colombia-Bogota. Retrieved from Universidad Distrital Francisco Jisé Caldas: http://repository.udistrital.edu.co

Ceballos Silva, A., & López Blanco, J. (2010). Delimitation of suitable areas for alternative crops: a multi-criteria-GIS evaluation. *Terra Latinoamericana, 28*(2), 109-118. Retrieved from https://www.terralatinoamericana.org.mx/index.php/terra

Cruz García, D. A., & López Ospina, A. M. (2020). Ciudad verde, una mirada desde territorio, comunidad y ciudadania. *Centro sur, 4*(1), 1-11. Retrieved from http://www.centrosureditorial.com/index.php/revista/article/view/41

Delgado Del Carpio De Escalante, P. (2020). Las políticas Turísticas en la Promocióndel turismo cultural, 2019. *Centro Sur, 4*(1), 1-9. Retrieved from http://www.centrosureditorial.com/index.php/revista/article/view/35/76

Enriquez Martinez, M., Osorio Garcia, M., Franco Maass, S., Ramirez de la O , I., & Nava Bernal, G. (2010). Multicriteria evaluation of the tourism resources of the Sierra de Nanchititla State Park, State of Mexico. *El Periplo Sustentable*(18), 7-35.

Franco Maass, S., Osorio García, M., Nava Bernal, G., & Regil García, H. (2009). MULTICRITERIA EVALUATION OF TOURISM RESOURCES: Nevado de Toluca National Park - Mexico. *Estudios y Perspectivas en Turismo, 18*(2), 208 - 226.

Franco-Maass, S., Osorio García, M., Nava Bernal, G., & Regil García, H. (2009). Multicriteria evaluation of tourism resources: Nevado de Toluca National Park-Mexico. *Estudios y Perspectivas en Turismo*, 208-226.

Grajales Quintero, A., Serrano Moya, E., & Hahn Von-H, C. (2013). Multicriteria methods and processes for evaluation. *Blue Moon*(36), 285-306. Retrieved from http://190.15.17.25/lunazul/index.php?option=com_content&view=article&id=152

Joo Nagata, J., & Alvarado Peterson, V. (2013). Multi-criteria/multi-objective evaluation applied to educaion data: a first approach. *Education and Technology Journal*(3), 112-123. Retrieved from http://revistas.umce.cl/index.php/edytec/article/view/136

Loor Bravo, L., Alonso Alemán, A., & Pérez Pérez, M. (2018). Tourism activity in Ecuador Conscious tourism or traditional tourism? *ECA Sinergia, 9*(1), 12. doi:https://doi.org/10.33936/eca_sinergia.v9i1.1195

López Franco, E. (2018). Marketing strategies for tour operators in the parish Posorja Guayas Province. *Journal of business and entrepreneurial studies, 2*(2), 37-44. Retrieved from http://journalbusinesses.com/index.php/revista/article/view/15/31

López Palomeque, F. (2007). Territorial planning of tourism and sustainability: Fundamentals, realities and challenges. *Turismo y Sociedad, 8*, 51-68.

Ministry of Tourism of Ecuador. (06 of 2017). *Methodological guide for the hierarchy of attractions and generation of tourist spaces in Ecuador 2017.* Retrieved from https://servicios.turismo.gob.ec

Pérez Vivar, M., González Guillén, M., Valdez Lazalde, J., de los Santos-Posadas, H., & Ángeles Pérez, G. (2014). Ecotourism suitability in the Sierra Nevada de Texcoco, State of Mexico. *Madera y Bosques, 20*(2), 127-140.

Plumed Lasarte, M., Gómez Bruna, D., & Martín Duque, C. (2018). Tourism planning, promotion and environmental sustainability. *Retos: Journal of Management Science and Economics, 8*(15), 7-17. doi:https://doi.org/10.17163/ret.n15.2018.01

Ramirez , A. M. (2007). *The process of hierarchical analysis based on production functions to plan the planting of rainfed corn.* Doctoral thesis. Colegio de Posgraduados Institución de Enseñanza e Investigación de Ciencias Agricolas, Mexico. Retrieved from https://www.eumed.net

Rivera Guerrero, Á. (2019). Strategic planning for sustainable development in the tourism sector. *Journal of business and entrepreneurial studies, 3*(2), 1-10. Retrieved from http://journalbusinesses.com/index.php/revista/article/view/22/45

Sanchez Ruiz, J., Calle Ruiz, A., Larrea Silva, J., & Quito Cabrera, R. (2019). Tourist Strengthening of the Plan of Development and Territorial Ordering for the Parish San Antonio of the Aradas of the canton Quilanga, province of Loja. *Espirales Revista multidiciplinaria de investigación científica, 3*(28), 121-147. doi:https://doi.org/10.31876/er.v3i28.580

Urióstegui Flores, A., Villaseñor Franco , A., & Reyes Nateras , B. (2018). Evaluation of tourism attributes of Ixtapan de la Sal, State of Mexico. *El Periplo Sustentable*(34), 136-163.

Vargas Isaza, O. (2005). Social multicriteria evaluation and its contribution to forest conservation. *Revista Facultad Nacional de Agronomía Medellín, 58*(1), 83-96. Retrieved from https://revistas.unal.edu.co/index.php/refame/article/view/21510

Vázquez Martínez, G., & Vázquez Solís, V. (2017). Evaluation of natural and cultural resources for the creation of a tourism corridor in the highlands of San Luis Potosí, Mexico. *Investigaciones Geográficas*(94), 01-15.

Yumisaca, J., Mendoza, E., & Peralta, S. (2019). Tourism planning: perspectives from the communities of Santa Elena. *Espirales multidisciplinary journal of scientific research, 3*(29), 131-147. Retrieved from https://www.revistaespirales.com/index.php/es/article/view/470/423