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Satisfaction in border tourism: An analysis with structural equations



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ABSTRACT

Border tourism is the temporary displacement of people to the dividing line between two countries contiguous areas. This activity promotes the economic development of these geographical regions. The aim of this research is to analyze visitors from the Dominican Republic and Haiti border. We propose the results of an empirical study with structural equations that show correlations between the attitude factor towards the border tourism, the value factors perceived by the tourist, satisfaction and loyalty of the visitor in the destination place.

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1. Introduction

Lacoste (1993) defines the border as a line of separation and contact between two or more States, revealing itself because of the existence of an evident discontinuity between each country spaces, even when this discontinuity may not only be territorial, but cultural, economic, religious, among other reasons as well; so, these cultures do not have to exactly coincide with the usual geographical borders (Giménez, 2007). According to Marcu (2015), borders are an essential element for people mobility between different countries. In some parts of the world, these geographical areas become tourist destinations, appearing what is called 'border tourism'. Although, according to Martínez and Valdés (1982), unlike other tourist typologies, there is a higher economic disparity in border tourism through a line that separates two countries, being this a scenario that confers its own characteristics and its *sui generis* evolution to tourism.

Bringas (2004: 8) defines border tourism as "the temporary displacement of people outside their usual place of residence to

the boundary between two countries adjacent cities, originated by leisure, entertainment, health, business, visits to relatives and/or friends, religion, social events or shopping, among others reasons, whose stay does not exceed one year and which compromises at least one night in the visited place. This mode emerged in the 1980s, with the first publications on this subject (Anguiano, 1991; Bringas, 1991; Martínez & Valdés, 1982), standing out the studies on the Northern Border of the United States and Mexico (Martínez, 1994). Later, the range of tourism researches in border areas increased, with studies that have been carried out on the Mexican-Guatemalan (Campos Delgado & Odgers Ortíz, 2012), American-Canadian (Konrad, 2015), Paraguayan-Brazilian (Banducci, 2011), Lusa (Vázquez, 2015) or Namibian-Angolan (Röder, Präp, Stellmes, Schneibel, & Hill, 2015) borders, among many others.

According to the World Tourism Organization border tourists are those who stay on the frontier for 24–72 h (Valenzuela, 2003), although it is not clear in this definition if tourists who stay more than three nights at there are tourists or not, neither it indicates if they would be included into the category of receptive or international tourism in case of exceeding those 72 h in the border area (Orgaz & Moral, 2014). Bringas and González (2003) identified two types of tourists that visit the border areas: the first one refers to a traditional tourist, who travels to satisfy his or her leisure needs,

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and the second one refers to those who travel for business reasons. Valenzuela (2003) points out that border tourism is not only defined by the border neighbourhood, restaurants or hotels, but that it is a continuous interaction between the different actors, producing practical integrations and experiences for both tourists and residents.

Border tourism destinations are often characterized by the political and socio-economic advantages that it offers, such as lower taxes or more permissive policies, favouring the development of certain types of tourism (Gelbman & Timothy, 2011). According to Timothy (2001), some examples of destinations with advantages are Llívia (Spain), Campione (Italy) or Jungholz (Austria). Timothy and Tosun (2003) also mention obstacles found in international boundaries, which can affect the tourists flow, differentiating between two types of barriers: physical barriers, which are the typical fortifications or fencing; and psychological barriers, in which different circumstances may arise such as socio-cultural ones on both sides of the border, different policies or different economic circumstances in each of the countries or border areas.

Bringas and Verduzco (2008) consider security as an important element in border destinations, appearing three clearly delimited dimensions: population security, related to events and situations that could endanger people and their properties; urban and regional security, through surveillance, control and punishment; and national security, which has a clear purpose, such as addressing structural problems and international aspects that could jeopardize national viability. Thus, boundaries mark the legal limits of the national sovereignty of a particular country, or the limits where a state can exercise its sovereign authority (Gelbman & Timothy, 2011). Many of these border areas are economically marginalized and geographically isolated, mainly due to their distance from the central zones (Wastl-Walter, Varadi, & Veider, 2003). Differences between frontier populations appear with the development of different economies, cultures or lifestyles (Rumley & Minghi, 1991). Sometimes, the differences can be positive, generating benefits that affect border growth (Hoekman, Frenken, & Van Oort, 2008).

The aim of this research is to empirically contrast the relationship between the attitude factor towards border tourism and the visitor value and satisfaction in the destination place. This is, therefore, an appropriate research topic, since the scarcity of studies in this field and on this type of tourism is notorious. Thus, the present research is relevant because it seeks empirical evidence on scarcely covered issues about the relationship between the variable attitudes on tourism at the border, the perceived value and the satisfaction of the tourism by the visitor.

2. Literature review

As the public has become more aware of the importance of protecting and conserving cultural and natural resources, studies have focused on ways to promote positive attitudes towards diverse elements (Tikka, Kuitunen, & Tynys, 2000). According to Zhang and Lei (2012), knowledge of the environment positively affects attitudes towards environmental actions, effectively promoting positive attitudes towards tourism at destination; in addition, improving the quality of the local environment increases the visual attractiveness of tourists who visit the geographical area, what also improves the aesthetic and recreational values and the quality of life of residents.

Tourism in border areas can produce benefits that encourage border growth (Hoekman et al., 2008). Among positive attitudes, tourism generates employment opportunities (Gu & Ryan, 2008), enhances local economy (Gursoy & Rutherford, 2004), contributes to raise the standard of living of the local population (Ahmed

& Krohn, 1992) and improves investment opportunities in new businesses (Dyer, Gursoy, Sharma, & Carter, 2007). Tourism activity also encourages cultural one, enhancing cultural heritage (Stronza & Gordillo, 2008), natural parks promotion (McCool & Martin, 1994), leisure opportunities increase (Perdue, Long, & Allen, 1990), increase of recreational facilities (Dyer et al., 2007) and create opportunities for cultural exchanges between visitors and hosts (Besculides, Lee, & McCormick, 2002).

Tourism also generates negative attitudes, highlighting the rising cost of living (Látková & Vogt, 2012), rising land and housing prices, and goods shortages (Belisle & Hoy, 1980). Tourism can cause local cultures and traditions to be affected by other cultures such as Occidental one (Weaver & Lawton, 2004), a negative perception of tourism by the local community (Ap & Crompton, 1988), increase in the crime rate (Lankford, 1996), traffic congestion (Gursoy & Rutherford, 2004), increased prostitution in the area (Nunkoo & Ramkissoon, 2011), increased vandalism (Dyer et al., 2007), depletion of wildlife (Látková & Vogt, 2012), pollution (Nunkoo & Ramkissoon, 2011), garbage generation, agglomerations and traffic congestion (Látková & Vogt, 2012) and ecological degradation (Sheldon & Var, 1984).

Attitudes, both positive and negative, are related to the importance of a tourist destination value, which has frequently manifested itself in tourism marketing and literature, being value an antecedent of customer satisfaction, willingness to buy, repeat buying and brand loyalty (Yoon, Lee, & Lee, 2010). In this sense, McDougall and Levesque (2000) tested a model in which the relationships between value, satisfaction and intention of behaviour were identified through four different types of service companies. On the other hand, Lee, Yoon, and Lee (2007) explored the effects of three perceived values on the satisfaction of travel participants of the Demilitarized Zone of Korea (DMZ) in his study, positively influencing the three values for the tourist's final satisfaction. Therefore, the positive effect of value on satisfaction can be interpreted from the logic that the resource value triggers customer satisfaction (Yoon et al., 2010).

Satisfaction influences the long-term evaluation of service quality perceived by demand (Alén González & Fraiz Brea, 2006), although for McAlexander, Kaldenberg, and Koenig (1994) it is impossible to conclude which of them precedes the other, but, there is always a relationship between both of them. In this regard, there are several destinations and organizations that develop satisfaction surveys aimed at tourists (Zabkar, Brencic, & Dmitrovic, 2010). According to Mazanec, Woeber, and Zins (2007), when destination is competitive tourists' satisfactions will be higher, therefore, this can help to increase the number of visitors and incomes to destination. For Yoon and Uysal (2005), the successful commercialization of the destination helps tourists to choose it and, once they have enjoyed the products and/or services, if the satisfaction has been good, they can return. Cronin and Taylor (1992) propose to determine the quality and satisfaction of the service through demand's perceptions.

Cooper, Flecher, Gilbert, and Wanhill (1993) developed the "Four A" model to analyze a tourist destination offer (*Attractions, Access, Amenities and Ancillary Services*), although later Buhalis (2000) took it to "Six A" (*Attractions, Accessibility, Amenities, Available packages, Activities and Ancillary Services*). This last model has been used by other authors to evaluate the satisfaction of the trip (Cole & Illum, 2006), concluding Hui, Wan, and Ho (2007) that these attributes are those that generate that a destination creates satisfaction or dissatisfaction in tourists groups, although it will depend on the different geographical regions. Therefore, satisfaction consumers' degree on a particular tourist destination depends on the consumer's expectations regarding the attributes of the destination, and the extent to which these expectations are met (Clemons & Woodruff, 1992).



Fig. 1. Location of Dajabón province.

Source: own elaboration, from Google Maps.

From the previous review, the following hypotheses are formulated:

H1. There is a significant relation of the knowledge towards the border tourism on the attitude of the visitor towards the border destination.

H2. There is a significant relationship between the knowledge of the border destination and the value of the perceived border tourist destination.

H3. There is a significant relationship between the visitor's attitude towards the border destination and the value of the perceived border tourist destination.

H4. There is a significant relationship between the value of the perceived border destination and the loyalty of the visitor to the border destination.

H5. There is a significant relationship between the value of the perceived border destination and visitor satisfaction.

H6. There is a significant relationship between visitor satisfaction and visitor loyalty to the border destination.

3. Area of study and methodology

The area of study of this research is the Northern Dominican-Haitian border, in particular, Dajabón's province (Fig. 1). This geographical area is located in the Northwest of the Dominican Republic, bordering the Republic of Haiti. Dajabón is the main province of the Island regarding border traffic between the two countries (Orgaz & López-Guzmán, 2015). In economic terms, Dajabón's province stands out for the trade in the Binational Market, which takes place every Monday and Friday of the year; this activity consists of the purchase and sale of products

(mainly textiles and household) by the Haitian and Dominican population. With regard to tourism, Dajabón's province has important historical-heritage, cultural and natural resources, as well as good infrastructures that make it possible to carry out tourism activity today, although this border destination has not taken off yet, and it's still in the shadows of other destinations on the island.

The chosen method for data collection has been the personal interview supported by a structured questionnaire. In this phase, there was developed a useful tool in order to gather the necessary information to achieve the aims of this research. The design of a closed questionnaire to be self-administered was chosen among the available options to collect information. In order to guarantee the questionnaire validity, the items forms are based on items selected from previous researches (Cong, 2016; Gelbman & Timothy, 2010; Sullivan, Bonn, Bhardwaj, & Dupont, 2012; Turner, 2008; Yoon et al., 2010; Zhang & Lei, 2012). From this initial set of items, a two-stage debugging process was followed. First, a researcher specialized in tourism analyzed the proposed items; second, the resulting questionnaire was reviewed by a person responsible for the tourist activity of the border region.

This way, the validity of the items that form the constructs of the model proposed in this research were verified twice (Fig. 2).

Subsequently, special attention was paid to the translation process of the proposed items from the original English into Spanish and French, seeking their adaptation to the context and their equivalence in language in terms of meaning, nuances and connotations. The most applied questionnaire was the English language one, since most of the tourists of non-Latin American or Spanish origin preferred it to answer the questions. The surveys were personally conducted to tourists visiting some of the province's tourism resources. Prior to the survey application, the interviewer informed the tourist about the aim of the investigation and asked him/her to

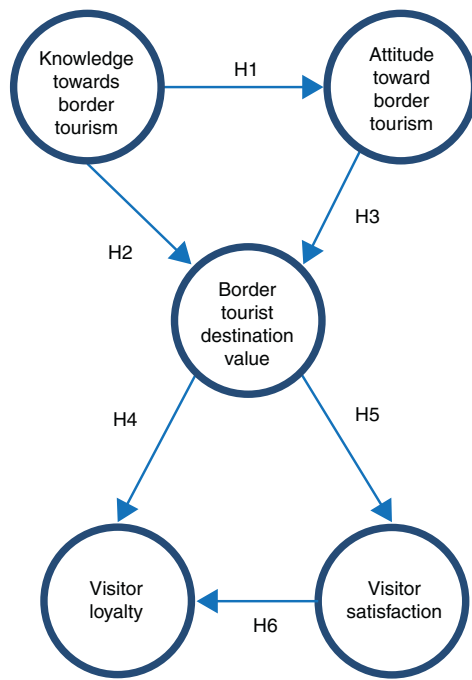


Fig. 2. Research model.

Table 1
Research data sheet.

Population	International tourists
Geographic area	Province of Dajabón (Northern Dominican-Haitian Border)
Temporality	July, August and September, 2015
Procedure	Simple Random Sampling
Confidence level	95%
Valid Questionnaires	583

Source: Own development.

collaborate in it. The tourist filled out the questionnaire with full autonomy and anonymously.

The questionnaire responds to three clearly differentiated parts. The first one deals with tourist's attitudes towards tourism in border areas; the second, on the tourist destination value and visitor satisfaction; and the third, on the socio-demographic characteristics of tourists. This way, the total number of items was 20, after the items cleaning process done by the calculation of Cronbach's alpha coefficient for each construct. Fieldwork was carried out during July, August and September 2015, using simple random sampling. A pre-test of 20 surveys was carried out. In total, the number of valid questionnaires was 583, obtaining a confidence level of 95%. Table 1 shows the research data sheet.

Questions from the first and second part of the questionnaire were answered using a five-point *Likert* scale. Most of the items related to the socio-demographic profile of the tourist were closed, although there were questions that were answered openly. The questions were formulated positively and negatively for the asked items to avoid acquiescence, which is defined as the tendency of some individuals to respond (agree) whatever the content of the item is. Cronbach's alpha index of total items is 0.803 (Table 2) and it is therefore acceptable, since Nunnally and Bernstein (1994) consider acceptable a scale if its Cronbach alpha is above 0.7. Data from this research were tabulated and analyzed using the IBM SPSS 19 statistical system, and the estimators and structural equations with IBM SPSS AMOS 23.

Table 2
Cronbach's alpha.

Reliability statistics	
Cronbach alpha	Nbr. of elements
0,803	20

Source: Own developed.

4. Empirical analysis

In tourism field, it is frequent that the variables under study, such as tourism quality, can not be directly measured and need to be quantified based on other observable or manifest variables. The aim of this section is to construct indicators of perceived quality in tourist destinations and loyalty of tourists through a methodology based on structural equation models. These models allow estimating multiple dependency ratios and represent unobserved or latent variables in these relationships, taking into account the measurement error in the estimation process (Reisinger & Turner, 1999).

In the questionnaire, there are developed a set of quality indicators perceived from a descriptive point of view, based on the knowledge about border tourism, attitudes towards border tourism, the value that the tourist assigns to the border destination, on the visitor's loyalty to the border destination and on the satisfactions and importance declared by the tourists as an approximation to the quality perceived in a destination. The difference of the present study consists in the use of the structural equations methodology, that incorporates dormant variables to the analysis, whose values can be used as indicators related to the destination.

It has been designed an initial model (model 1) that takes into account the following observed and dormant variables, both exogenous and endogenous (Table 3).

Perturbation terms, which include the effects of the omitted variables, measurement errors and the randomness of the specified process.

The following figures and tables show the estimated structural coefficients of the proposed models. The models have been estimated by the generalized least squares (GLS), ML (maximum likelihood) and ULS (unweighted least squares) methods.

The generalized least square method is a special case within the weighted least squares estimation, although in this method the data are required to be under multivariate normality conditions. This method is asymptotically equivalent to ML since they are based on the same criteria and can be used under the same conditions, although it is more appropriate to use this method if we do not have a small sample of the data. In addition, it is inappropriate when the model increases in size and complexity.

The maximum likelihood method is the most used in the adjustment of structural equation models by providing consistent, efficient and non-segregated estimates with not large enough sample sizes. The ML estimation requires the variables to be normally distributed, although the violation of the multivariate normality condition does not affect the ability of the method to unbiasedly estimate the model parameters.

The unweighted least squares method is a method of parameter estimation for which it is not established that the observed variables must follow a given distribution, which is recommended for categorical variables and is based on the matrix of poly-critical correlations (Batista Foguet & Coenders Gallart, 2000; Bollen, 1989; Schumacker & Lomax, 1996). In addition to the ULS method, alternative methods are also considered when handling ordinal variables. Among them, we can highlight the RULS method which, according to Yang-Wallentin, Jöreskog, and Luo (2010), is a robust variant of the ULS method. Like the latter, RULS also works with an array of poly-critical correlations, although these correlations

Table 3
Variables included in the model.

Variables dormant	Exogenous	C.T.F. (Knowledge towards border tourism) A.T.F. (Attitude towards border tourism) V.D.T.F. (Value of border destination)
	Endogenous	L.E. (Visitor Loyalty) S.V. (Visitor satisfaction)
Observed variables	Exogenous	CM1, CM2, CM3, CM4 y CM5 (Knowledge about tourism at the border) AC1, AC2, AC3, AC4 y AC5 (Attitudes towards tourism at the border) VA1, VA2 y VA3 (Value of the tourist to the border destination) LD1, LD2 y LD3 (Loyalty of the visitor towards the border tourism)
	Endogenous	SA1, SA2, SA3 y SA4 (Satisfaction)
Measurement errors	Of exogenous observed variables.	e1, e2, e3, e4, e5, e6, e7, e8, e9, e10, e11, e12 y e13
	Of endogenous observed variables.	e14, e15, e16, e17, e18, e19 y e20

Source: Own development.

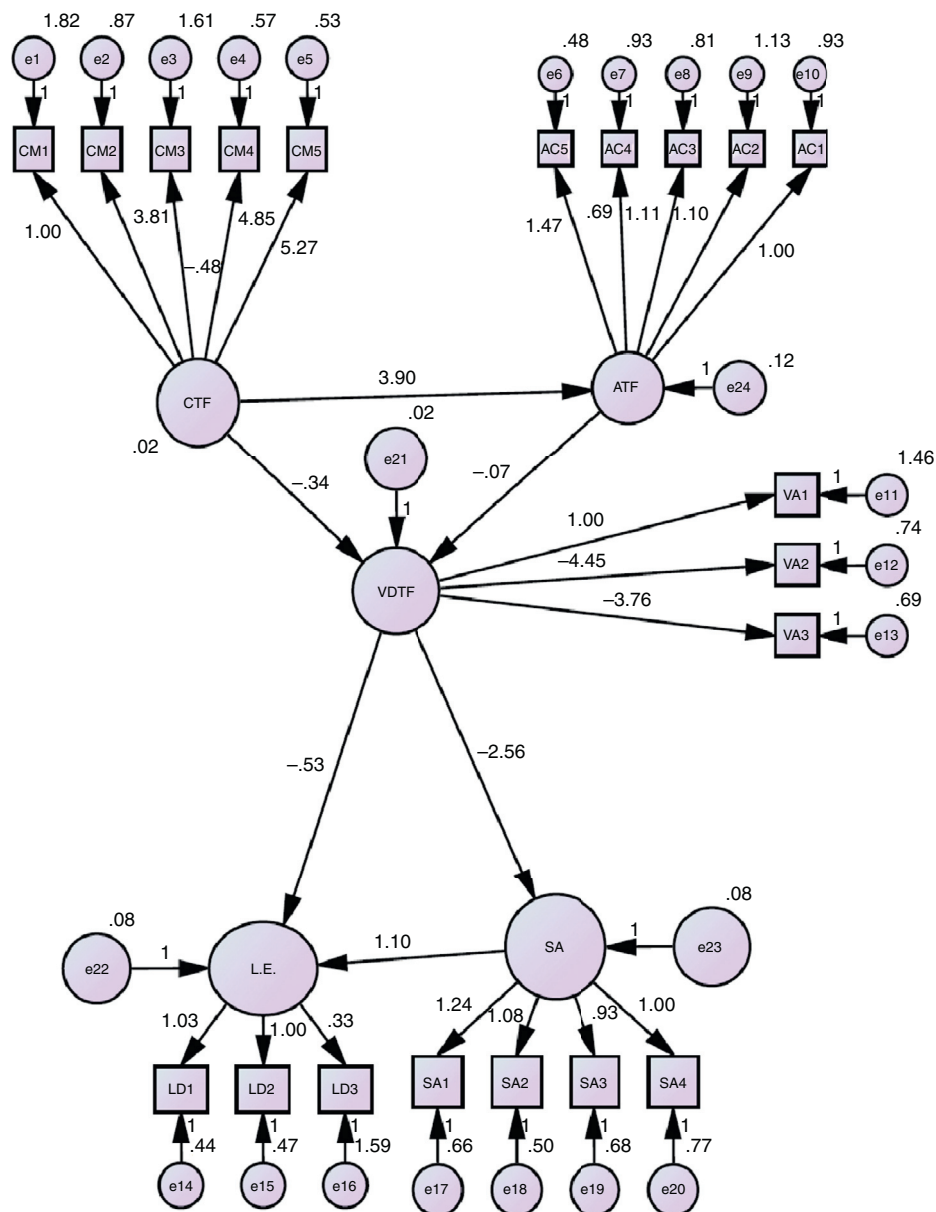


Fig. 3. Path diagram of proposed model 1 and estimators.

Source: Own development.

Table 4
Coefficients of the proposed model 1.

		Estimate	GLS	p.lim.	ML	p.lim.	ULS	p.lim.
ATF	<—	CTF	1.837	***	3.897	0.02	2.480	—
VDTF	<—	CTF	−0.373	0.05	−0.343	0.19	−0.731	—
VDTF	<—	ATF	−0.184	0.09	−0.065	0.19	−0.062	—
SA	<—	VDTF	−1.398	0.01	−2.562	0.01	−1.242	—
L.E.	<—	VDTF	−1.101	0.01	−0.528	0.44	−1.128	—
L.E.	<—	SA	0.732	***	1.100	***	0.639	—
CM1	<—	CTF	1.000		1.000		1.000	—
CM2	<—	CTF	2.095	***	3.806	0.02	2.458	—
CM3	<—	CTF	−0.371	0.29	−0.479	0.3	0.003	—
CM4	<—	CTF	2.381	***	4.850	0.02	2.763	—
CM5	<—	CTF	2.689	0	5.266	0.02	3.150	—
AC1	<—	ATF	1.000		1.000		1.000	—
AC2	<—	ATF	1.081	***	1.103	***	1.111	—
AC3	<—	ATF	1.198	***	1.107	***	1.074	—
AC4	<—	ATF	0.710	***	0.689	***	0.716	—
AC5	<—	ATF	1.520	***	1.470	***	1.424	—
VA1	<—	VDTF	1.000		1.000		1.000	—
VA2	<—	VDTF	−2.841	0.01	−4.448	0.01	−1.748	—
VA3	<—	VDTF	−2.193	0.02	−3.764	0.01	−1.630	—
SA4	<—	SA	1.000		1.000		1.000	—
SA3	<—	SA	1.206	***	0.932	***	1.298	—
SA2	<—	SA	1.182	***	1.079	***	1.401	—
SA1	<—	SA	1.621	***	1.240	***	1.652	—
LD2	<—	L.E.	1.000		1.000		1.000	—
LD1	<—	L.E.	1.065	***	1.034	***	1.099	—
LD3	<—	L.E.	0.289	0.01	0.327	***	0.556	—

Source: Own development.

*** Significant probability.

are the starting point for later obtaining the matrix of asymptotic covariances AC that intervenes in its matrix W of free distribution.

The model 1 (Fig. 3) presents the causal diagram or “Path diagram” that follows the structure of the initial theoretical model (Fig. 2), with the hypotheses to be tested and the structural coefficients estimated by the ML model. Table 4 compares the coefficients of model 1 estimated by the three calculated methods.

The estimated non-significant coefficients are the dormant variables CFT (Tourist Frontier Knowledge), ATF (Attitude towards Border Tourism) and the variable CM3 (Knowledge of Border Tourism).

In order to optimize the proposed initial model, we proceed to eliminate the observed variable CM3, keeping in the model the unobserved CFT and ATF dormant variables in order to contrast the starting hypotheses formulated.

Table 5
Coefficients of the proposed model 2.

		Estimate	GLS	p.lim.	ML	p.lim.	ULS	p.lim.
ATF	<—	CTF	1.837	***	3.897	0.02	2.480	—
VDTF	<—	CTF	−0.373	0.05	−0.343	0.19	−0.731	—
VDTF	<—	ATF	−0.184	0.09	−0.065	0.19	−0.062	—
SA	<—	VDTF	−1.398	0.01	−2.562	0.01	−1.242	—
L.E.	<—	VDTF	−1.101	0.01	−0.528	0.44	−1.128	—
L.E.	<—	SA	0.732	***	1.100	***	0.639	—
CM1	<—	CTF	1.000		1.000		1.000	—
CM2	<—	CTF	2.095	***	3.806	0.02	2.458	—
CM4	<—	CTF	2.381	***	4.850	0.02	2.763	—
CM5	<—	CTF	2.689	0	5.266	0.02	3.150	—
AC1	<—	ATF	1.000		1.000		1.000	—
AC2	<—	ATF	1.081	***	1.103	***	1.111	—
AC3	<—	ATF	1.198	***	1.107	***	1.074	—
AC4	<—	ATF	0.710	***	0.689	***	0.716	—
AC5	<—	ATF	1.520	***	1.470	***	1.424	—
VA1	<—	VDTF	1.000		1.000		1.000	—
VA2	<—	VDTF	−2.841	0.01	−4.448	0.01	−1.748	—
VA3	<—	VDTF	−2.193	0.02	−3.764	0.01	−1.630	—
SA4	<—	SA	1.000		1.000		1.000	—
SA3	<—	SA	1.206	***	0.932	***	1.298	—
SA2	<—	SA	1.182	***	1.079	***	1.401	—
SA1	<—	SA	1.621	***	1.240	***	1.652	—
LD2	<—	L.E.	1.000		1.000		1.000	—
LD1	<—	L.E.	1.065	***	1.034	***	1.099	—
LD3	<—	L.E.	0.289	0.01	0.327	***	0.556	—

Source: Own development.

*** Significant probability.

Table 6
Comparison of adjustment of the proposed models.

	MODEL 1				MODEL 2		
	GLS	ML	ULS		GLS	ML	ULS
<i>Absolute adjustment measures</i>							
Chi-square	929.27	1.227,78	–	805.07	1.046,36	–	
prob.-lim	0	0	–	0	0	–	
NCP	765.27	1.063,78	–	659.07	900.358	–	
GFI	0.84	0.829	0.92	0.854	0.842	0.935	
RMSEA	0.09	0.106	–	0.088	0.103	–	
ECVI	1.755	2.268	–	1.534	1.949	–	
<i>Incremental adjustment measures</i>							
AGFI	0.796	0.781	0.9	0.811	0.794	0.916	
NFI	0.305	0.666	0.85	0.336	0.71	0.874	
IFI	0.347	0.697	–	0.382	0.731	–	
CFI	0.333	0.695	–	0.367	0.729	–	
<i>Measures of adjustment of parsimony</i>							
PRATIO	0.863	0.863	0.86	0.854	0.854	0.854	
PNFI	0.263	0.575	0.73	0.287	0.598	0.746	
PGFI	0.287	0.6	–	0.313	0.623	–	

Source: Own development.

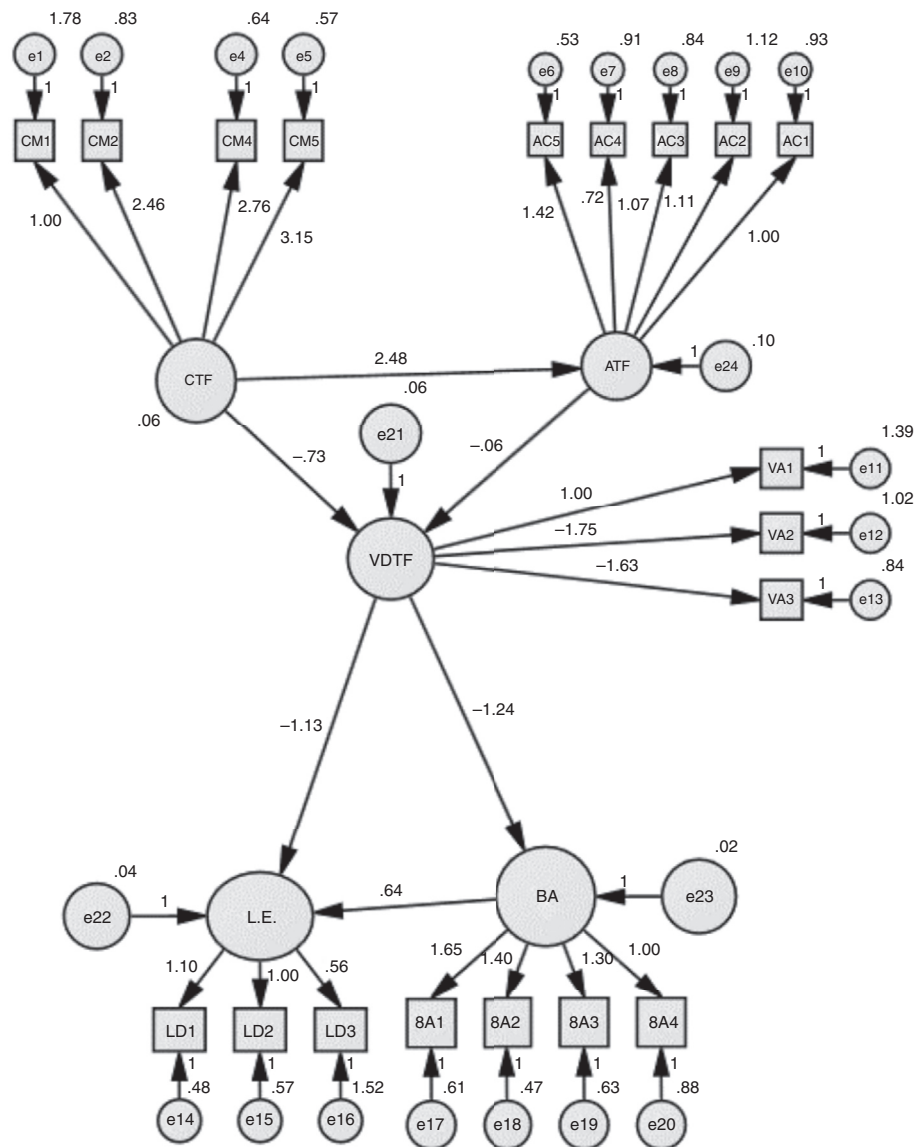


Fig. 4. Path diagram of proposed model 2 and estimators.

Source: Own development.

Once the variable CM3 is eliminated, a new estimate of the structural coefficients that we call model 2 is presented, showing the causal diagram in Fig. 4. Table 5 shows the structural coefficients estimated by the GLS, ML and ULS methods.

In order to confirm the adjustment degree of the two proposed models (Table 6), absolute adjustment measures, incremental adjustment measures and parsimony adjustment measures have been calculated.

Model 2 presents better adjustment measures once the variable CM3 of destination knowledge has been eliminated.

As for the absolute adjustment measures, the Chi-square test reaches a value of 805.074 by the generalized least squares method with an associated limit probability of 0.000, which implies that there are discrepancies between the correlation matrix and the observed matrix, the GFI adjustment measure exceeds 0.9 for the ULS method.

Some incremental adjustment measures such as AGFI are sensitive to the number of indicators; however, it exceeds the value 0.8 and it is close to GFI (GLS and ULS) and RMSEA is close to 0.05 (GLS) in our case.

With regard to the measures of adjustment of parsimony, the normalized Chi-square value is close to 4 (GLS). PNFI is significant from values of 0.06, being significant for all calculated methods. Thus, based on the above, it is considered that model 2 presents adequate adjustment indices.

5. Conclusions

The results of the study highlight the relationship, influence and positive and direct impact of the visitor's knowledge, attitude, perceived value, satisfaction and loyalty towards the Dominican-Haitian border destination, namely, the province of Dajabón.

5.1. Obtained results

The structural coefficients estimated in model 2 allow us to compare the results obtained with the starting hypotheses:

H1. There is a significant relationship between the knowledge towards the border tourism and the attitude of the visitor towards the border destination, the hypothesis is confirmed with a significant structural coefficient, a greater knowledge of the visitor of the border tourism has significant positive effects on the attitude of the visitor in the border destination.

H2. There is a significant relationship between the knowledge of the border destination and the perceived border tourist destination value, with a significant structural coefficient the hypothesis is confirmed, a greater knowledge of the visitor of the border tourism has significant positive effects on the value of the perceived border destination.

H3. There is a significant relationship between the attitude of the visitor towards the border destination and the value of the perceived border tourist destination, with a non-significant structural coefficient. The hypothesis is not confirmed, therefore, the attitude of the visitor at the border destination does not influence the perceived value at the border destination.

H4. There is a significant relationship between the value of the perceived border destination and the visitor's loyalty to the frontier destination, the hypothesis is confirmed with a significant structural coefficient, a higher value of the perceived border destination has significant effects on the visitor's demonstrated loyalty towards the border destination.

H5. There is a significant relationship between the value of the perceived border destination and visitor satisfaction, with a

significant structural coefficient the hypothesis, a higher value of the border destination has significant effects on visitor satisfaction at the border destination.

H6. There is a significant relationship between visitor satisfaction and visitor loyalty to the border destination, the hypothesis is confirmed with a significant structural coefficient, a higher value of visitor satisfaction has a significant effect on visitor loyalty to destination border tourism.

The results obtained in the present study emphasize that the knowledge of the destination influences the attitude of the visitor and the value of the border destination, as well as a direct relation between the value of the border destination and the visitor's loyalty. Likewise, a direct relation of the satisfaction perceived by the visitors to the border destination and the loyalty of the same towards that destination is observed.

The importance of measuring the variable satisfaction comes from its relationship with customer loyalty (Galloway, 1998). The variables satisfaction and loyalty are closely related and satisfaction is a variable that precedes loyalty (Dick & Basu, 1994).

Our study confirms the direct and positive relationship between the satisfaction perceived by the visitor to the border destination and the loyalty of using this tourism system again, as well as recommending the tourist destination.

Academic literature also shows the existence of a positive relationship between consumer satisfaction and loyalty, being the first predecessor of the latter, which is usually measured as the intention of post-purchase behaviour (Szymanski & Henard, 2001).

Given that a tourist's image of the destination will significantly influence his/her intention to visit it/return, recommend it and even how he/she values the experience there, his/her management becomes a vital issue for the success of the destiny. This importance is reinforced by the fact that destinations compete basically with their image given that, before being visited, tourists will have an image about them that will attract them to the place. Likewise, the experience lived in the destination place may lead to a modification of the perceived initial image, which will boost their loyalty only in the case of being positive. Consequently, building a suitable image for a destination will determine its ability to attract and retain tourists.

5.2. Implications, limitations and future lines of research

The role of the agents and responsible of the destination to achieve the loyalty of the tourist is key, so they have to, through their various actions or omissions, improve the knowledge and attitude of the visitor on the different tourist attractions of the border destination, so that the perceived value impacts on the tourists satisfaction, satisfaction that will help to reinforce the loyalty to the border destination.

Private companies and public administrations, both separately and in public-private partnership agreements, should direct tourism, environment and employment policies towards synergies that optimize the available resources in the border areas, improve the local economy, setting this way the population to tourist destinations with great potential but little appreciated until the moment.

Regarding the limitations of the study, it would be interesting to obtain information about the tourist destination, the population and the Public Administrations and data from the point of view of hotel offer, since this study only covers the demand for such services. A second limitation of the study is the time period in which it is performed, since an annual monitoring in the medium term would allow us to have time series to apply econometric models and calculate the marginal effects of the endogenous variables on the exogenous variables.

For future researches, the cross-information between offer and demand would provide us with information about the break-even point in that market, as well as the optimization of the resources of the hotel sector and the product demanded by customers, which would lead to repeat on their visit, demonstrating the much sought after customer loyalty.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.jedeen.2017.02.001.

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