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# Gastronomic clusters in an Ecuadorian tourist destination: the case of the province of Manabí

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## Abstract

**Purpose** – Gastronomy is currently becoming a predominant factor for understanding and taking part in the cultural heritage of a destination. The enjoyment of culinary pleasures has become a primary motivating factor when choosing a travel destination. Gastronomy is, therefore, a fundamental part of the satisfaction that the traveller experiences when visiting a location.

**Design/methodology/approach** – Data collection for the research was based on the completion of fieldwork with a sample of tourists who visited the Ecuadorian province of Manabí. Based on this understanding and completed fieldwork, the study analyses the gastronomic experiences of tourists visiting the province of Manabí (Ecuador).

**Findings** – study shows the existence of three types of tourists, based on their higher or lower interest in the local gastronomy when travelling: survivors, enjoyers and experiencers. The results also reveal that there are different levels of satisfaction regarding local gastronomy in terms of interest and the previous cultural motivation of the tourist.

**Practical implications** – The characterisation of the different tourist segments identified and the assessments that these dictate regarding the destination's gastronomy allow tourist managers to develop and offer tourist products adapted to the wishes and needs of tourists.

**Originality/value** – Research involves the innovation in the use of segmentation models for culinary tourism widely considered in Europe but applied in this case to developing countries in Latin America.

**Keywords** Gastronomic tourism, Tourist segmentation, Motivation, Satisfaction, Assessment of attributes, Manabí, Ecuador

**Paper type** Case study

## 1. Introduction

The satisfaction of the tourist can be conditioned, to a greater or lesser extent, by the enjoyment of the culinary pleasures they have sampled. Local cuisine may, therefore, be considered an accessory matter and one of no importance, associated with purely physiological drivers based on the human need to consume food, or they can become a fundamental element of motivation for the choice of destination and tourist experience (Basil and Basil, 2009; López-Guzmán *et al.*, 2017). In the latter case, the local gastronomy is considered a relevant factor in understanding the history of the place, its customs, the social relationships or the celebrations of the local community itself.

For studying the relationship between tourism and gastronomy, it is necessary to distinguish tourist segments on the basis of the tourists' perceptions and motivations regarding the local gastronomy (Hjalager, 2004; Pesonen *et al.*, 2011). A new segment of gastronomic tourists is currently being developed: the *haute cuisine* chefs. These exclusive travellers look to discover, among other things, new preparation methods, new combinations of flavours and textures, unique ethnic products and special condiments. Based on these discoveries, these tourists can provide differentiation and exclusivity in renowned restaurants. This new way of coming closer to the gastronomy of a destination becomes a source of innovative development in the kitchens of the most renowned restaurants (Baldwin, 2017).

Gastronomic tourism suggests an important economic contribution, especially in developing countries (Mgonje *et al.*, 2016), and it is, therefore, becoming an important driving force for progress in many destinations, allowing for the additional value of local gastronomy and native products enjoyed in the same place where they were generated. Different studies have, therefore, analysed gastronomic tourism on the basis of three different points of view: first, from the consumer's point of view, managing to discover the opinion of tourists; second, from the producer's point of view, with the aim of discovering the proposals that different offerors are providing in a specific destination; and third, from the point of view of the economic development and well-being that this form of tourism provides to the destination (Andersson *et al.*, 2017). This line of research focuses on specifying how gastronomy may be an attractive element for the destination, and additionally, an element for the promotion of agricultural products from this geographic area. Research carried out on this basis has obtained two important findings that prove this ascendancy (Fields, 2002; Hall *et al.*, 2003): (1) usually tourists, who place great importance on the gastronomy of a destination, have greater purchasing power, and as a result, expenditure; and (2) gastronomic tourists are very demanding regarding gastronomy quality and authenticity in the place visited.

This research contributes to the academic literature regarding tourist experiences in relation to local gastronomy. This study also suggests innovation in the use of segmentation models for culinary tourism, widely considered in Europe (Nicoletti *et al.*, 2019), but applied in this case to developing countries in Latin America. The study, therefore, begins with segmentation in terms of the greater or lesser interest of tourists in gastronomy on their trip, and on the basis of this, the motivations and culinary experiences during their visit to the province of Manabí (Ecuador) are analysed. In addition, this Ecuadorian province also boasts an important cultural heritage, among which the traditional weaving of the Ecuadorian *toquilla* straw hat stands out (included in 2012 on the Representative List of the Intangible Cultural Heritage of Humanity by UNESCO). Naturally, all tourists consume food at a destination, but the ways of approaching this gastronomy may represent interests and motivations that differ greatly among visitors (Hjalager, 2004; Pesonen *et al.*, 2011).

The pre-Colombian, colonial and republican history of the province of Manabí is a testament to its processes of cultural enrichment, which have led to great gastronomic diversity. This culinary proposal is well represented in the offerings of restaurants and their emblematic settings, such as the *Parque del Marisco* (Seafood Park) located on the scenic promenade of the city of Manta. The gastronomic variety of the province provides a combination of staple foods such as maize, peanuts, cocoa, cassava, beans, plantains or chayote.

## 2. Literature review
### 2.1 Tourist segmentation and gastronomy
Tourist segmentation is an essential tool for efficient destination management as it allows public and private entities that participate in destination development to determine

appropriate products for tourists' demands and needs. This is also appropriate when considering gastronomy. If gastronomic preferences respond to the interests and wishes expressed by tourists, it would increase the satisfaction level and also generate loyalty to the destination. Kivela and Crotts (2005) have specified three relationship areas for gastronomy and tourism. The first area investigates the main relationship between tourism and local gastronomy, determining if the latter is considered a main or a secondary motivation when choosing a destination. The second area analyses the way tourists approach the enjoyment of a destination's culinary legacy. The third area studies the influence of the destination's gastronomy on the generation of economic wealth and social development in the destination.

Scientific research relating to segmentation of culinary tourists is grouped around three different ideas: the study of tourist destinations (Kivela and Crotts, 2005; López-Guzmán *et al.*, 2017; McKercher *et al.*, 2008), food markets (Crespi-Vallbona and Dimitrovski, 2016) and food festivals (Kim *et al.*, 2015; López-Guzmán *et al.*, 2017). Hjalager's study (2004) segments culinary tourists according to their experience with the local gastronomy into four groups: recreational, existential, diversionary and experimental gastronomic tourists. Björk and Kauppinen-Räisänen (2016), meanwhile, have suggested a segmentation based on three questions related to local gastronomy: "how important are food and eating as motives for travelling," "how important are food and eating experiences when choosing a destination" and "how important are food and eating for travel satisfaction." The segmentation proposed by these researchers specifies three groups or segments of culinary tourists: (1) experiencers, those who travel to gain food experiences; (2) enjoyers, those with a positive attitude towards food; and (3) survivors, those with very little or no interest in food. This segmentation model has recently been validated in research about culinary tourism in the Italian city of Trapani (Nicoletti *et al.*, 2019). Given the originality of Björk and Kauppinen-Räisänen's segmentation (2016), this research uses their proposal as a reference for identifying the higher or lower levels of gastronomic interest among tourists visiting the province of Manabí (Ecuador).

Different approaches have been used in the determination of segments. The factor-cluster analysis technique is among the most often used (Park and Yoon, 2009; Prayag, 2010). This methodology has, however, received frequent and important criticism given the resulting lost significance of important information, inexact interpretations and erroneous conclusions (Dolnicar, 2008; Dolnicar *et al.*, 2012; Prayag and Hosany, 2014). The segmentation technique proposed by Dolnicar (2008), on the other hand, shows greater strength, given that it is based on the direct grouping of original scores, allowing for the segments to preserve a higher value of the original data (Dolnicar, 2002; Prayag and Hosany, 2014; Sheppard, 1996). The technique proposed by Dolnicar (2008) is, therefore, used in the present study. In accordance with the literature review, the hypothesis to be compared is suggested with the following statement:

*H1.* Tourists show different attitudes towards gastronomy as a variable interest when travelling.

### 2.2 Motivation and gastronomy

As mentioned above, gastronomy can be a motivation for basic consumption or it can be a key factor in choosing the destination that tourists wish to visit. The first instance would involve a tourist type whose motivation for eating local cuisine is complementary to other truly primary motivations for travelling, with gastronomy not being a special factor in the tourist experience (López-Guzmán *et al.*, 2017). This additional motivation for local gastronomy leads the tourist, on many occasions, to eat the same food and at the same restaurant chains as if they were in their place of origin, without giving any importance to the culinary wealth of the destination. In any case, for Fields (2002), these motivations should always be subject to characterisation, placing them in the study within one of the four groups of gastronomic motivations – that is, among those who look to satisfy their primary needs for feeding.

The second group includes tourists of a cultural nature, who intend to satisfy their desire to discover the destination and its culture by means of its gastronomy. The third motivation group considers those of an interpersonal nature, including those who seek to answer the human need for social interaction with other people. The fourth group includes tourists who desire to achieve status and prestige, with these being the motivators for the discovery and enjoyment of the local gastronomy, given the social recognition and distinction that this cultural learning may provide.

For their part, Quan and Wang (2004) present two groups of tourist motivations related to local gastronomy: principal and secondary. The first group includes the desire to discover a specific place through the gastronomic attractions that the chosen destination has for the tourist. The secondary motivation group covers all those factors that determine the choice of a destination based on different variables in local gastronomy, without diminishing the total ascendance of the place's cuisine. In similar terms, Babolian Hendijani (2016) determines the importance of gastronomic motivations at the moment of choosing the destination, with these being a part of the key factors in the decision process. Mgonje *et al.* (2016) concluded that an intense relationship is found among the motivations for travel and the desire to taste local foods.

In a more or less intense way, motivations towards local gastronomy are an integral part of tourist experiences in a destination. Andersson *et al.* (2017) classified the gastronomic experiences of tourists into three blocks: sensory, cultural and social. Crespi-Vallbona and Dimitrouski (2016), meanwhile, specified gastronomic motivations by placing them into three groups: sensory appeal, local food experience and health concerns. López-Guzmán *et al.* (2017), in their study of gastronomic festivals, analysed the relationship between tourism, motivation and experience, grouping tourist motivations towards local food into three categories: new experiences, culture and socialisation. In accordance with this literature review, the hypothesis to be compared is suggested with the following statement:

*H2.* Culinary motivations are heterogeneous and conditioned by tourists' attitudes towards gastronomy on their journeys.

*2.3 Satisfaction and gastronomy*
Tourism has traditionally been classified as an important standardisation explained by the general trend that economic and social globalisation is imposing. The competition in the sector determines that tourist destinations are currently counting on cultural and authentic aspects that allow for their differentiation. The correct management of a place cannot, therefore, only be based on the sum of natural resources or common leisure interests. The current tourist, who is far more demanding, will reach full satisfaction if their visit allows them to enjoy a unique tourism experience, and at the same time, respond to their motivations (Cracolici *et al.*, 2008). Tourist satisfaction with the local gastronomy has been determined to be a fundamental factor, given its double cognitive-affective component. Satisfaction with local cuisine, therefore, becomes a causal variable of great importance for tourist loyalty by providing, when appropriate, the attainment of unforgettable experiences during the visit (Haveng-Tang and Jones, 2005).

Babolian Hendijani (2016) has drawn an interesting conclusion that is applicable to this study, by showing that tourist satisfaction regarding local gastronomy is conditioned by the cultural heritage present (in addition to the healthy and natural nature of the local products used in the preparation). Satisfaction with local gastronomy is, in this sense, conditioned by taste (Crespi-Vallbona and Dimitrouski, 2016), which, on many occasions, derives from preparations based on ancestral recipes that are a fundamental part of the historical and cultural heritage of a destination. This provides the traveller with a unique experience. Dining experiences, therefore, become a key variable within the structure of tourist satisfaction

(Babolian Hendijani, 2016). A destination's gastronomy plays an important role in attaining general satisfaction with the visit (Björk and Kauppinen-Räisänen, 2016; López-Guzmán *et al.*, 2017), by inter-relating with other factors such as motivation, experience and satisfaction. In accordance with the literature review, the hypotheses to be compared are the following:

*H3.* Higher or lower interest in local gastronomy during trips is a factor that conditions the experience and satisfaction of the tourist.

*H4.* Culinary motivations towards local gastronomy condition the visitor's experience.

*H5.* The perception of the local food by tourists is significantly different, being valued more by travellers with a special interest in gastronomy.

## 3. Methodology
### 3.1 Survey design
Data collection for this research was based on the completion of fieldwork with a sample of tourists who visited the Ecuadorian province of Manabí. This is a geographical area with an important cultural heritage that is most commonly expressed in the traditional weaving of the Ecuadorian *toquilla* straw hat (a UNESCO Intangible Cultural Heritage of Humanity). By starting with an initial questionnaire, an appropriate, definitive model was attained through a refinement process involving different phases. The process was divided into three phases: (1) a local researcher specialising in culinary tourism studied the different proposed items; (2) the questionnaire was then analysed by different people responsible for the management of tourist activity in Manabí; and (3) a pre-test was given to 50 tourists. By means of this refinement process, we found that specific questions and/or answers were not easily understood by some of the tourists surveyed; this led to the modification of these items. Following this process, all the items contained within the questionnaire were assessed once more, and this led to the definitive, valid questionnaire.

The final questionnaire sought a correct suggestion through questions and adequate adjustment of the answers to attain the aims sought in this research, without requiring excessive time to complete. The questionnaire was provided in two languages – Spanish and English – with the respondent choosing according to their preference or their native language. The survey applied was based on previous scientific studies about tourism and gastronomy (Björk and Kauppinen-Räisänen, 2016; Kim *et al.*, 2009; López-Guzmán *et al.*, 2017; Pérez-Gálvez *et al.*, 2017).

The questionnaire was composed of two blocks of questions. The first block included questions related to the local gastronomy, such as tourist interest and the importance of local food when deciding upon a destination. This block also was intended to analyse the traveller's motivations regarding local gastronomy and assess specific particularities of the dishes tasted, as well as the quality of the service received in the gastronomic establishments visited. The second block of questions was focused on the socio-demographic variables of the tourists surveyed, including gender, age, marital status, educational level and purchasing power, among others. The questionnaire used questions with yes/no answers, open or closed answers and answers on a 5-point Likert-type scale (with 1 being of little importance, and 5 being very important).

### 3.2 Data collection
The fieldwork was performed by a group of survey takers linked to the University San Gregorio of Portoviejo (Ecuador) and was carried out between the months of June and July 2018. The final results of the fieldwork derived from the receipt of 712 surveys, of which 675

were valid. The collection of the surveys was done in different establishments within the study area with the aim of collecting the widest range of situations and people. A non-probability technical sample was carried out, usually developed in this type of research, considering that the respondents are available to complete the questionnaire in a specific space and time (Finn *et al.*, 2000). No stratification was performed regarding gender, age, marital status, educational level, profession or any of the other socio-demographic variables, as there was no other previous study that verified this stratification. The survey rejection rate was low, and it did not have any significance for any variable. The completion of the survey did not take more than 10 min.

### 3.3 Sample and sampling error

The specific area of this research consisted of national and international tourists who visited the area, including the cities of Manta, Montecristi and Jaramijó in the Ecuadorian province of Manabí, regardless of whether the visitor stayed overnight in the geographic area or not. Regarding the size of the subject population of the study, the number of tourists who stayed overnight in Manabí in the year 2017 was considered; according to data from the Ministry of Tourism of the Government of Ecuador, the number of tourists who stayed in this province in 2017 reached 2,166,200 persons. As a guide, the sampling error for this research, for a confidence level of 95%, would be ±3.77% in the case of having been a probability and random sample.

### 3.4 Data analysis

For the statistical analysis, the SPSS vs 24 programme was used. Before analysing the sample data, Cronbach's alpha coefficient was used to verify the reliability of the answers. The cluster grouping technique (*K*-means clusters) was applied to segment the tourists in terms of their higher or lower interest in local gastronomy on their trips. Discriminant analysis was then completed to validate the segmentation performed. After obtaining the gastronomic segments, the statistics and measures of association were used to verify the existence of relationships among the segments and the different socio-demographic variables. The internal consistency of the scales created for the determination of the gastronomic dimensions (Excitement, Interpersonal Relationship and Cultural Experience) was validated by means of exploratory factor analysis (principal component method with varimax rotation) (SPSS vs 24 software) and a confirmatory factor analysis (with structural equations using the model for maximum likelihood extraction) of the model generated in the exploratory study (AMOS vs 24 software). Different non-parametric statistical means (Kruskal–Wallis *H* test and Mann–Whitney *U* test) were used to study the possible differences that exist among the segments of the study.

## 4. Results

### 4.1 Gastronomic clusters

For analysing interest in local gastronomy among tourists in Manabí, three items were included. Cronbach's alpha coefficient for the final scale reached a score of 0.756, indicative of suitable internal consistency among the elements of the scale. The critical level ($p$) associated with Friedman's $\chi^2$ test (155.346) for the analysis to compare the null hypothesis that all the elements of the scale have the same mean was less than 0.05, rejecting the existence of means equality of the items.

The literature recommends the use of a hierarchical grouping method for this analysis, followed by a non-hierarchical method (Hair *et al.*, 2010). Both techniques are regularly used in tourism studies for the completion of tourist segmentation (Dolnicar, 2002). The stated

purpose is to group the visitors into segments with similar characteristics in terms of interest shown in local gastronomy. The analysis of the resulting agglomeration chronograms and dendrograms resulted in three or four cluster solutions. A more detailed analysis of the group assignment then indicated that grouping into three segments was the most convenient.

T1    As for naming the resulting segments, the model proposed by Björk and Kauppinen-Räisänen (2016) – survivors, enjoyers and experiencers – was followed. As Table 1 shows, the first segment contains 9.3% of tourists, characterised by low scores in the three items. This segment is known as *survivors*, given that it presents low gastronomic interest. The second group is composed of tourists with moderate gastronomic interests and groups 45.5% of tourists in the sample. This segment is known as *enjoyers*. The last segment is composed of tourists with a high interest in local gastronomy. This segment consists of 45.2% of tourists and is known as *experiencers*. The Kruskal–Wallis $H$ test (1952) suggests that the compared means are not equal among the different segments or clusters. To to verify where these differences are found, Mann–Whitney's $U$ test (1947) is used, as can be seen in Table 1. This segmentation has been confirmed by the previous discriminant analysis, correctly classifying 98.5% of the individuals.

These results allow us to accept H1: tourists show different attitudes towards gastronomy as an interesting variable in trips.

### 4.2 Socio-demographic profile of tourists

From the 675 people interviewed, 50.8% were men and 49.2% were women, with there being no important difference in the data collected over the different months. The visitors surveyed

T2   are, generally, young. Table 2 shows that 3/5 of the sample are less than 36 years of age. Unlike other research (Tse and Crotts, 2005; Pérez-Gálvez *et al.*, 2017), there is no difference in relation to the segments of tourists identified (Kruskal Wallis' $H$ statistical = 3.944; $p = 0.139$). The youngest tourists – the group under the age of 40 – travel accompanied by friends or work colleagues. The tourist aged between 46 and 65 years of age is usually accompanied by their partner and children. Within the people who travel alone, their presence is greater in the group under the age of 25. In terms of the professional category of the tourists, employees, students, self-employed businessmen and public employees are highlighted.

The level of academic education among the respondents is high, as shown in Table 2. Thus, eight out of ten respondents report having a university degree or post-graduate degree. Upon analysing the level of studies in terms of age, differences are detected. The tourists of the most advanced age have a higher education level, in a way that as the age is lower, the presence of tourists with post-graduate studies is also lower (gamma coefficient = 0.214; $p = 0.000$). On the other hand, there is no difference in gastronomic clusters (Kruskal Wallis' $H$ study = 0.688; $p = 0.709$).

| | | Food clusters | | Kruskal–Wallis $H$ test | |
|---|---|---|---|---|---|
| Gastronomy attitude | Survivors | Enjoyers | Experiencers | $\chi^2$ | Sig. |
| How would you rate your knowledge of gastronomy? | *2.30*[(*)] | *2.71*[(*)] | *4.24*[(*)] | 534.242 | <0.000 |
| How would you rate your interest in gastronomy? | *2.32*[(*)] | *3.75*[(*)] | *4.06*[(*)] | 129.827 | <0.000 |
| How much has Manabí's gastronomy influenced your visit to the city? | *2.16*[(*)] | *4.00*[(*)] | *4.21*[(*)] | 165.942 | <0.000 |

**Note(s)**: **(*)** The values in italics present significant differences in two of the three mean clusters. For testing significant differences among the means, the Mann–Whitney $U$ test was applied
**Source(s)**: Own elaboration

**Table 1.**
Characterisation of clusters according to gastronomy attitude

| Variables | Categories | Food clusters | | | |
| --- | --- | --- | --- | --- | --- |
| | | Survivors | Enjoyers | Experiencers | Total |
| Sex ($N = 675$) | Man | 61.9% | 51.1% | 48.2% | 50.8% |
| | Woman | 38.1% | 48.9% | 51.8% | 49.2% |
| Age ($N = 675$) | Under 25 years of age | 28.6% | 27.4% | 23.3% | 25.6% |
| | 26–35 years old | 38.1% | 39.1% | 36.4% | 37.8% |
| | 36–45 years old | 22.2% | 21.5% | 25.2% | 23.3% |
| | 46–65 years old | 09.5% | 10.7% | 09.8% | 10.2% |
| | 66 years old or more | 01.6% | 01.3% | 05.3% | 3.1% |
| Educational level ($N = 675$) | Primary educationSecondary education | – | 01.7% | 01.3% | 01.3% |
| | Secondary education | 22.2% | 16.9% | 19.3% | 18.5% |
| | University education | 57.1% | 58.6% | 58.4% | 58.4% |
| | Master/PhD | 20.7% | 22.8% | 21.0% | 21.8% |
| Occupational category ($N = 675$) | Employee | 17.5% | 27.0% | 23.0% | 24.3% |
| | Student | 22.2% | 24.8% | 22.0% | 23.3% |
| | Self-employed | 19.0% | 16.6% | 18.4% | 17.6% |
| | Civil servant | 20.6% | 12.1% | 12.1% | 12.9% |
| | Business owner | 19.0% | 11.4% | 12.7% | 12.7% |
| | Housewife | 01.7% | 05.2% | 06.6% | 05.5% |
| | Retired | – | 02.6% | 04.5% | 03.3% |
| | Unemployed | – | 00.3% | 00.7% | 00.4% |
| Country of origin ($N = 675$) | South America | 76.1% | 71.6% | 88.2% | 79.5% |
| | Europe | 17.5% | 12.7% | 7.2% | 10.6% |
| | North America | 06.4% | 15.4% | 4.6% | 09.3% |
| | Others | – | 00.3% | – | 00.6% |

**Source(s)**: Own elaboration

**Table 2.**
Socio-demographic profile of the tourists in Manabí

In terms of place of origin, 61.0% of visitors that visit the province of Manabí are Ecuadorians, while 39.0% are foreigners. More than 2/3 of national tourism comes from three provinces: Quito (34.7%), Guayaquil (25.0%) and Esmeraldas (8.7%). Among foreign visitors, the presence of Latin American (47.6%) and North American (27.4%) tourists stands out, followed by Europeans (24.7%). Two-thirds of the tourists from Latin America are focused on three countries: Colombia (25.6%), Chile (23.1%) and Venezuela (20.8%). The analysis by segments shows a greater presence of national tourists within the group that states a greater interest in gastronomy when travelling (Kruskal Wallis' $H$ statistical $= 12.832$; $p = 0.002$).

The analysis of the monthly level of family income – expressed in USD – reveals that 27.2% of respondents state having an income that does not surpass $700 per month, while 22.0% earn more than $2,500. Generally, tourists that visit the province of Manabí have a low-medium purchasing power, and only four out of ten respondents declare income greater than $1,500 per month. There are significant differences regarding the level of income and interest in gastronomy (Kruskal Wallis' $H$ statistical $= 17.472$; $p = 0.000$). The average level of declared income by enjoyer tourists is 11% over the average and 26% higher than that stated by experiencer tourists. However, the greater purchasing power of the enjoyer tourists does not translate into a greater planned expense, with there being differences among the three clusters (Kruskal Wallis' $H$ statistical $= 7.703$; $p = 0.021$).

### 4.3 Gastronomy and motivation
One of the aims of this study is to analyse the main motives that tourists have for tasting local gastronomy. Therefore, a question was included in the questionnaire that reflected a series of motives on a 5-point Likert-type scale, for which previous research was used as a reference

(Björk and Kauppinen-Räisänen, 2016; Kim *et al.*, 2013; López-Guzmán *et al.*, 2017; Pérez-Gálvez *et al.*, 2017), adapting the questionnaire to the subject destination of this study. The 11 items were grouped into three different gastronomic dimensions: *cultural experience, excitement* and *interpersonal relationship*.

T3     The three gastronomic motivational dimensions were obtained by means of an exploratory factor analysis with a sample of 200 cases. Table 3 shows the three factors with an eigenvalue greater than 1, using it as criteria to assign an item to the factor that will present a factor load over 0.30, which explains 67.6% of the total variance. The correlations matrix presented a large number of correlations (87.2%) with a value greater than 0.3 with the determining factor equal to 0.002 and the result of Bartlett's sphericity test showed that the variables were not independent (Bartlett's test = 1,423.55, $p < 0.001$). The Kaiser-Meyer Olkin (KMO) test for the appropriateness of the sample was 0.82, with the communalities being above 0.61. All of the values of the Measures of Sampling Adequacy (MSA) were found to be above 0.85. These values show the viability of the factor analysis of the correlations matrix.

F1     After the model generated in the exploratory study, confirmatory factor analysis was conducted, with structural equations by means of the method for the extraction of maximum likelihood with a sample of 475 cases. Figure 1 shows the appropriateness of the model obtained in the exploratory analysis, reaching a model formed by three factors, with a total of 11 items. The estimation of the parameters proved to be statistically significant ($p < 0.05$) and the factor loads were found to be above 0.55, saturating each one of the latent dimensions or variables because of the indicators.

T4     The adjustment indexes of the confirmatory model (Table 4) show appropriate values, guaranteeing the eligibility of the model presented regarding the factor structure of the scale. In another order, an analysis was performed on two independent and probability sub-samples, whose results revealed pertinent values.

T5     Table 5 presents the different interests and/or motives of the respondents for consuming local gastronomic products. The Cronbach's alpha coefficient for the final scale achieved a

| Motives for consuming local gastronomic products | Factors | | | Motivational dimensions |
| --- | --- | --- | --- | --- |
| | 1 | 2 | 3 | |
| It is different from what I eat every day | 0.774 | | | Excitement |
| An authentic experience | 0.652 | | | |
| It excites me to taste local food in its place of origin | 0.607 | | | |
| Give advice about gastronomical experiences to other travellers | | 0.726 | | Interpersonal Relationship |
| Being able to transmit my experiences with local food | | 0.664 | | |
| Enjoy pleasant moments with family and/or friends | | 0.627 | | |
| Taste local food increases family and friendship bonds | | 0.596 | | |
| Increase my knowledge about different cultures | | | 0.802 | Cultural Experience |
| Discover the taste of local food | | | 0.761 | |
| Discover something new | | | 0.737 | |
| It offers a unique opportunity to understand local culture | | | 0.551 | |
| Eigenvalues | 3.45 | 1.48 | 1.23 | |
| % variance explained | 27.73 | 21.63 | 18.22 | |
| % variance cumulative | 22.73 | 49.36 | 67.58 | |
| KMO | 0.828 | | | |
| Bartlett's test of sphericity | Chi-cuadrado = 1,423.55; sig. < 0.001 | | | |
| Extraction method: principal component analysis; rotation method: varimax with Kaiser | | | | |
| **Source(s)**: Own elaboration | | | | |

Table 3.
Factorial matrix of exploratory factor analysis
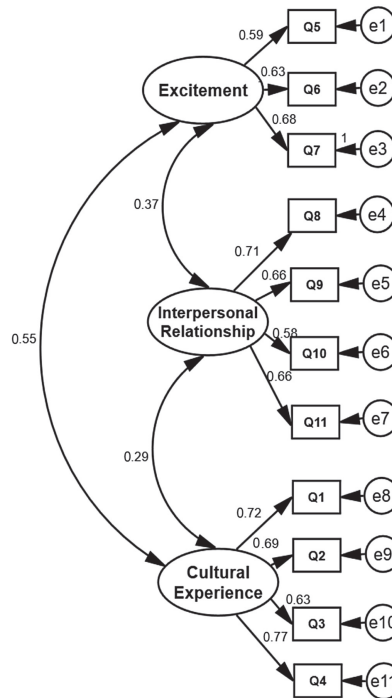
**Figure 1.**
Pathgram
confirmatory factor
analysis

**Source(s)**: Own elaboration

| | $\chi2/gl$ | GFI | AGFI | CFI | NFI | TLI | Rmsea (I.C. 90%) |
|---|---|---|---|---|---|---|---|
| Total | 4.6 | 0.97 | 0.97 | 0.95 | 0.95 | 0.97 | 0.052 (0.042–0.064) |
| Sample-1 | 3.51 | 0.95 | 0.96 | 0.96 | 0.96 | 0.96 | 0.054 (0.045–0.069) |
| Sample-2 | 3.34 | 0.96 | 0.96 | 0.95 | 0.95 | 0.96 | 0.055 (0.045–0.073) |

**Table 4.**
Fit indices
confirmatory factor
analysis

**Source(s)**: Own elaboration

score of 0.772, which indicates high internal consistency for the elements of the scale. The critical level ($p$) associated with Friedman's $\chi^2$ test (137.912) is less than 0.001. This allows the affirmation that there is no means equality of the items. Of those interviewed, 49% considered "*discover the taste of the local food,*" one of the main reasons for tasting local gastronomy. The motives "*enjoy pleasant moments with family and/or friends,*" "*I am excited to taste local food in its place of origin*" and "*discover something new*" also stood out. These were the main reasons for 36% of the respondents.

The study by gastronomic segments allowed the verification of the existence of significant differences in each of the gastronomic motivational dimensions, see Table 6 Experiencer tourists were characterised by registering the highest scores in each of the three motivation dimensions, being significantly greater compared to other segments for the "*interpersonal relationship*" dimension. To establish comparisons, the Kruskal–Wallis $H$ and Mann–Whitney $U$ tests were used. The survivors tourist segment was characterised by the lowest scores in each of the three motivational dimensions, showing significant differences with the two other groups.

| Food motivational dimensions | | | Mean | Ranking |
|---|---|---|---|---|
| Excitement | Cronbach's Alpha (0.607); Mean (4.08) | I am excited to taste local food in its place of origin | 4.12 | 3 |
| | | It is different from what I eat every day | 4.09 | 5 |
| | | An authentic experience | 4.02 | 7 |
| Interpersonal Relationship | Cronbach's Alpha (0.618); Mean (4.03) | Enjoy pleasant moments with family and / or friends | 4.17 | 2 |
| | | Give advice about gastronomic experiences to other travellers | 4.03 | 6 |
| | | Tasting local food increases family and friendship bonds | 3.97 | 8 |
| | | Being able to transmit my experiences with local food | 3.96 | 9 |
| Cultural Experience | Cronbach's Alpha (0.727); Mean (4.02) | Discover the taste of local food | 4.22 | 1 |
| | | Discover something new | 4.10 | 4 |
| | | It offers a unique opportunity to understand local culture | 3.88 | 10 |
| | | Increases my knowledge of different cultures | 3.87 | 11 |
| **Source(s)**: Own elaboration | | | | |

**Table 5.** Food motivational dimensions

| Food motivational dimensions | Food clusters | | | Kruskal–Wallis $H$ test | |
|---|---|---|---|---|---|
| | Survivors | Enjoyers | Experiencers | $\chi^2$ | Sig. |
| Excitement | *3.55*[*] | 4.13 | 4.14 | 35.193 | <0.000 |
| Interpersonal Relationship | *3.73*[*] | *3.97*[*] | *4.16*[*] | 28.878 | <0.000 |
| Cultural Experience | *3.55*[*] | 4.00 | 4.14 | 22.167 | <0.000 |

**Note(s)**: **(*)** The values in italic represent significant differences in two of the three mean clusters. To test for significant differences among the means, the Mann–Whitney $U$ test was applied
**Source(s)**: Own elaboration

**Table 6.** Characterisation of clusters from the means of motivational dimensions

The results suggest that the gastronomic motivations of the visitors are heterogeneous and are conditioned by their interest in gastronomy during their trips (H2). The travellers used gastronomy as a tool to discover more about the tourist destination, enjoy new experiences or satisfy interpersonal needs with friends and/or family members.

*4.4 Gastronomy and satisfaction*
In addition to having a series of natural, cultural or artistic resources, the tourist destination should also respond to tourists' search for an experience (Carcolici *et al.*, 2008). Following this argument, tourist destinations should be aware of the importance of gastronomy as a tool for the construction of a unique experience (Haveng-Tang and Jones, 2005). The mean declared satisfaction level on a 5-point Likert-type scale was 4.05 points, and 27.3% of the respondents stated they were fully satisfied (i.e. indicated 5 points). Within the group of the most satisfied tourists, experiencer tourists stood out (32.5%). It should be highlighted, however, that only 3.7% of the tourists participating in the study gave a score less than or equal to two. These results indicate a positive relationship between interest in local gastronomy and tourist satisfaction (Haveng-Tang and Jones, 2005; López-Guzmán *et al.*, 2017; Pérez-Gálvez *et al.*, 2017).

Table 7 shows positive scores for gastronomic experiences on the part of the three study segments, which were significantly different depending on whether it was more or less related to the reasons motivating the consumption of local products. This assessment of gastronomic experiences is significantly greater in experiencer tourists and shows evidence of how a greater relevance of the three motivational dimensions is converted into greater levels of gastronomic satisfaction. The data shown supports the third hypothesis of the study (H3): the higher or lower levels of interest in local gastronomy on trips are a factor that contributes to and conditions the experience and tourist satisfaction.

Having verified that the tourists are satisfied with the gastronomy in Manabí, we go on to analyse the relationship between tourist satisfaction and their motives in pursuing local gastronomy. As can be seen in Table 8, the three dimensions discriminate significantly and correlate in relation to gastronomic satisfaction. The results show that a greater presence of reasons related to "excitement" and "interpersonal relationship" greatly influence the satisfaction perceived by the visitor regarding gastronomy in Manabí.

The previous results indicate that the public and private organisations in charge of the management of this sector should join forces to increase gastronomic satisfaction among tourists, working on the key aspects that they identify. The fourth research hypothesis is, therefore, supported (H4): culinary motivations towards local gastronomy condition the tourist experience of the visitor. This study supports the results obtained in previous studies that indicate how local gastronomy contributes to tourist satisfaction and behaviour (Björk and Kauppinen-Räisänen, 2016; López-Guzmán *et al.*, 2017; Pérez-Gálvez *et al.*, 2017).

A question was also included in the questionnaire regarding the assessment of the main attributes of the local gastronomy, to identify its main strengths and weaknesses, as shown in Table 9. Among the best-placed attributes, "*smell and taste,*" "*visual appeal*" and "*fresh ingredients*" stood out. Among the points with lower scores in the research, "*nutritional value,*" "*prices*" and "*facilities*" are found.

An analysis of the assessment of these attributes by gastronomic segments indicates the existence of different gastronomic perceptions of the province of Manabí, as shown in Table 10. Attributes such as "*smell and taste,*" "*visual appeal*" and "*fresh ingredients*" are more highly valued by the tourist cluster with the highest interest in gastronomy. These results

| | Food clusters | | Kruskal–Wallis $H$ test | |
| Survivors | Enjoyers | Experiencers | $\chi^2$ | Sig. |
|---|---|---|---|---|
| 3.09[(*)] | 4.01[(*)] | 4.15[(*)] | 13.739 | <0.000 |

**Table 7.**
Characterisation of clusters from the food satisfaction variable

**Note(s):** (*) The values in italic represent significant differences in two of the three means clusters. To test for significant differences among the means, the Mann–Whitney $U$ test was applied
**Source(s):** Own elaboration

| | Kruskal–Wallis $H$ test | | |
| Food motivational dimensions | $\chi^2$ | Sig. | Rho Spearman |
|---|---|---|---|
| Excitement | 24.405 | <0.000 | 0.23[(**)] |
| Interpersonal Relationship | 28.857 | <0.000 | 0.22[(**)] |
| Cultural Experience | 30.780 | <0.000 | 0.21[(**)] |

**Table 8.**
Analysis of food satisfaction and motivational dimensions

**Note(s):** (**) The correlation is significant at the 0.01 level (bilateral); (*) The correlation is significant at the 0.05 level (bilateral)
**Source(s):** Own elaboration

support research hypothesis H5: the perception of local food by tourists is significantly different, being assessed in great measure by the travellers with a special interest in gastronomy.

## 5. Discussion

Tourist segmentation, in terms of gastronomic interest, has previously been analysed (Björk and Kauppinen-Räisänen, 2016; Kivela and Crotts, 2005; McKercher *et al.*, 2008; Thompson and Prideaux, 2009). These studies, as well as the current study, are based on the existence of different tourist attitudes and motivations towards local gastronomy. The existence of tourist segments with a high gastronomic interests and others with a reduced interest is also indicated. In our study, the segment with a high gastronomic interest has been called experiencers, following the model of Björk and Kauppinen-Räisänen (2016). Prior research has also referred to this experimental segment as gastronomy tourists (Hjalager, 2004) or definite culinary tourists (McKercher, 2008). Regarding the tourist segment with a low interest in local gastronomy, this research has called them survivors, following the model of Björk and Kauppinen-Räisänen (2016). Other research has called this group recreational

| Attributes | Mean | Ranking |
|---|---|---|
| Smell and taste | 4.05 | 1 |
| Visual appeal | 4.02 | 2 |
| Fresh ingredients | 3.99 | 3 |
| Service and hospitality | 3.90 | 4 |
| Innovation and new flavours in dishes | 3.90 | 5 |
| Food safety | 3.85 | 6 |
| Atmosphere | 3.84 | 7 |
| Nutritional value | 3.83 | 8 |
| Prices | 3.82 | 9 |
| Facilities | 3.81 | 10 |
| *Cronbach's Alpha* | 0.775 | |
| **Source(s)**: Own elaboration | | |

**Table 9.**
Assessment attributes of Manabí's gastronomy

| Attributes of Manabí's gastronomy | Food clusters | | | Kruskal–Wallis $H$ test | |
|---|---|---|---|---|---|
| | Survivors | Enjoyers | Experiencers | $\chi^2$ | Sig. |
| Smell and taste | *3.76*[(*)] | *4.00*[(*)] | *4.16*[(*)] | 15.623 | <0.000 |
| Visual appeal | *3.71*[(*)] | *4.00*[(*)] | *4.11*[(*)] | 11.070 | <0.004 |
| Fresh ingredients | 3.86[(**)] | 3.94[(**)] | 4.06[(**)] | 4.771 | <0.092 |
| Service and hospitality | 3.62[(**)] | 3.84[(**)] | *4.02*[(*)] | 11.248 | <0.004 |
| Innovation and new flavours in dishes | 3.56[(**)] | 3.80[(**)] | 4.08[(**)] | 24.796 | <0.000 |
| Food safety | *3.43*[(*)] | 3.84[(**)] | 3.95[(**)] | 20.080 | <0.000 |
| Atmosphere | *3.44*[(*)] | 3.83[(**)] | 3.93[(**)] | 14.782 | <0.001 |
| Nutritional value | 3.56[(**)] | 3.79[(**)] | *3.93*[(*)] | 10.248 | <0.006 |
| Prices | *3.51*[(*)] | *3.73*[(*)] | *3.98*[(*)] | 26.793 | <0.000 |
| Facilities | 3.63[(**)] | 3.75[(**)] | 3.90[(**)] | 10.590 | <0.005 |
| *Level of medium gastronomy aspects* | 3.61[(**)] | 3.85[(**)] | 4.01[(**)] | 37.315 | <0.000 |
| **Note(s)**: (*) The values in italic type represent significant differences in two of three of the mean clusters. To test for significant differences among the means, the Mann–Whitney $U$ test was applied | | | | | |
| **Source(s)**: Own elaboration | | | | | |

**Table 10.**
Clusters characterisation from Manabí gastronomy aspects

visitors (Hjalager, 2004), non-culinary tourists (McKercher *et al.*, 2008) or not interested (Thompson and Prideaux, 2009).

This research provides evidence that the gastronomic motivations of visitors are heterogeneous, being conditioned by their higher or lower gastronomic interest. A grouping of culinary motivations into three dimensions has, therefore, been conducted: cultural experience, excitement and interpersonal relationships. Previous studies have analysed motivations towards local gastronomy, grouping them into different dimensions (Björk and Kauppinen-Räisänen, 2016; Kim *et al.*, 2009, 2013; Sims, 2010). Andersson *et al.* (2017), for example, grouped them into: sensory, cultural and social. Meanwhile, Baldoni Hendijani (2016) identified the following: heritage, serving, food environment, variety, availability, sensory and ingredients.

This research corroborates the results obtained in the studies of Björk and Kauppinen-Räisänen (2016) and López-Guzmán *et al.* (2017) that gastronomy is an important component for increasing tourist satisfaction. On the basis of this idea, Haven-Tang and Jones (2005) affirm that tourist destinations should consider gastronomy as the main component for allowing tourists to obtain a unique experience when visiting.

## 6. Conclusions

Tourist destinations are currently counting on strengthening and developing their gastronomy because they can respond to the tourist's wish to discover the cultural uniqueness of the place visited through the enjoyment of culinary pleasures. There are tourists who consider the destination's gastronomy and even the cuisine of a specific local restaurant, one of the main motivations for choosing a destination. This research has been developed based on this idea and considers tourism and gastronomy in the province of Manabí (Ecuador), which also enjoys a cultural heritage recognised by UNESCO – the traditional weaving of the Ecuadorian *toquilla* straw hat. This study builds on the emerging research conducted on the relationship between tourism and gastronomy in Latin America, where culinary tourism is becoming a source of sustainable economic and social development.

Research has shown that tourists have different attitudes and levels of interest in local gastronomy. By addressing interest in gastronomy, three types of tourists have been detected. These have been called survivors, enjoyers and experiencers, following the model of Björk and Kauppinen-Räisänen (2016). Regarding these segments, local gastronomy represents a relevant role in the segment with the most gastronomic interest. Interest in gastronomy is also a conditioning factor for culinary motivations and visitor satisfaction. By analysing the gastronomic motivations of visitors, evidence has been found for the presence of three different motivational dimensions: excitement, interpersonal relationships and cultural experience.

One of the most important contributions of this study is its verification that culinary motivations condition satisfaction with local gastronomy. The results of this research indicate that the dimensions of cultural excitement and interpersonal relationship are those that contribute most to gastronomic satisfaction. Tourists declared high satisfaction with their gastronomic experience in Manabí, with this being statistically different in terms of interest in local gastronomy. Similarly, high gastronomic interest turns into different perceptions regarding the attributes of local cuisine. In this respect, the most valued attributes were "*smell and taste,*" "*visual appeal*"and "*fresh ingredients.*"

This study not only sought to advance the theoretical knowledge concerning gastronomic tourism but also to provide practical implications to help efficient management in this sector. The characterisation of the different tourist segments identified and the assessments that these dictate regarding the destination's gastronomy allow tourist managers to develop and

offer tourist products adapted to the wishes and needs of tourists. So that local gastronomy can become another tool for tourist competition, it is necessary to adopt measures that allow for more agile access to public and private financing, to improve and modernise dining establishments in the province of Manabí. This will allow for differentiation based on exclusive service and higher quality. Such changes will allow visitors who come to enjoy the gastronomy of Manabí to not only enjoy it during their visit but also afterwards, in their place of origin, as they will want to continue tasting the products and preparations, which will eventually become another source of promotion.

The implications of the research have been carefully considered. The need to combine gastronomic innovation with the culinary tradition of the area should be highlighted. In order to do this, the use of local and community products is essential. At the same time, this increases the fair and inclusive economic development of the tourist phenomenon in the local community itself. In this process, it is necessary to perform an intense work of research by the agents and managers implied with the purpose of saving, visualising and valuing foodstuffs, recipes, tricks and secrets of traditional Manabí cuisine. All of this provides a special innovation and new flavours in dishes of the restaurants of Manabí. Additionally, with the knowledge the study provides, specific content could be designed in some training and professional itineraries regarding tourism in the province of Manabí, allowing for the students to have a better understanding of what tourists want from their gastronomy. All of this will allow for graduates from the different specific workshops and courses to have better skills to join the labour market or entrepreneurial and self-employment experiences that allow for the equitable use on behalf of local society in relation to its rich gastronomic heritage.

The main restriction of the study is the limited time period in which the fieldwork was carried out (June and July 2018), and the study should, therefore, be extended to the remaining months of the year to address other situations connected to different seasonal features. Another limitation of the research is based on the partiality of the study, as it only considers tourist demand. In future studies, it would, therefore, be interesting to expand the current study to other stakeholder groups, such as the local community or entities that provide the tourists with offers in the province of Manabí.

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