

## EXTENDED ABSTRACT

# TOURIST'S CROWDING PERCEPTION ASSESMENT IN QUITO'S HISTORICAL CENTER

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Tourism in cities is one of phenomenon studied with great interest in the academic world. In fact, as Ashworth (2012) refers, cities provide the most important stage where tourist activity occurs. In addition, the need to understand and study the city closely as a dynamic component in people's life has become transcendental nowadays (World Tourism Organization, 2012).

Incorporation of tourism in old cities can cause problems related to functional balance, urban planning, heritage protection and accessibility. This suggests that without the application of timely management measures, risks of significant consequences may occur (González, 2013). De la Calle and García (1998) cited by Cavallès, Laurent, Maurin & Sánchez (2016), highlight two main binding problems: the excessive concentration of visitors in a very limited number of resources and spaces, and the consequent underutilization of a wide set of alternative places. This has led to affirm that historic cities can attract tourist to the point of promoting overcrowding and loss of quality in experiences.

A critical aspect that draws attention to tourism in cities is the need to properly manage visitor flows, in order to avoid conflicts and enhance competitive advantages in the destination. Hence, visitor management is contemplated in several competitiveness models (Ritchie & Crouch, 2003, Jiménez and Aquino, 2012). In fact, studies about crowding provide clarity on how to monitor and manage flows in sites of natural, cultural or historical significance (Moyle & Croy, 2007, cited by Moyle et al., 2017) and thus favoring a satisfactory experience to tourist.

Crowding perception as a factor that influences the tourist experience, is recognized by several authors such as Galí Espelt (2008); Pedersen (2002, cited by García & De la Calle 2012); Barrer, Hernández and Balbuena (2017); and East, Osborne, Kemp & Woodfine (2017). Additionally, it has been considered an indicator to measure the social burden capacity in urban tourism context (Almeida, 2006). However, as reported by García, De

la Calle and Mínguez (2011: 222), “there are few or almost nonexistent publications and works that can be traced in relation to the application of the concept to touristic places of historical & heritage dominance”

Based on this, the study aims to assess tourist’s perception about crowding in the Historic Center of Quito city. Quito is currently a Metropolitan District. It occupies an area of 4,235.2 km<sup>2</sup> and houses 15.8% of the population of Ecuador. It represents the political-administrative capital of the country and maintains an organized territory in eight zonal administrations that contain sixty-five parishes, of which thirty-two are urban and thirty-three rural (Municipio DMQ, 2011).

The city in its multiple and diverse historical process, has a pre-Inca antecedent as a center of articulation of small towns called “señoríos”. With the Inca presence, Quito becomes a new political, administrative and ritual centrality of the Incas, similar to Cuzco; and, with the Spanish conquest, it acquires a role of Christian centrality (Municipio DMQ, 2003).

Quito owns a Historical Center what is loaded with political, symbolic and economic value. It was declared World Heritage Site in 1978, being the first city to receive such distinction from UNESCO.

The Historic Center covers an area of 230 hectares of natural protection and 376 hectares of built-up protection. The latter includes 4 zones: central, eastern, western and axis 24 de Mayo. The central zone, comprised between the Imbabura, Montúfar, Manabí and 24 de Mayo streets, concentrates the main touristic use space of the Historic Center, around the Plaza de la Independencia and other nearby areas.

This zone is the main tourist attraction of the city and 67.2% of foreign tourists visit it (EPMGDT, 2015). Among its iconic touristic sites are the Plaza de la Independencia, La Ronda street and the churches of the Compañía de Jesús, San Francisco, La Catedral and La Merced.

The study used a quantitative method based on a survey. A questionnaire was applied to 800 domestic and foreign tourists at the two most popular open space sites in the Historic Center, which are the Plaza de la Independencia and La Ronda street (Tourist Indicators System of Quito, 2016).

The questionnaire was structured in three blocks in both Spanish and English. The first block was focused on the socio-demographic profile of tourists and integrated the variables: nationality, gender, age, marital status, academic education, occupation, accompany and length of stay in Quito. There were 7 closed multiple choice questions and one open question.

The second block was oriented to the motivational profile of tourist, and incorporated 26 motivations recovered and integrated from two similar works carried out in Bruges and Xian, both world heritage cities (Jin et al., 2016, Neuts & Nijcamp, 2012). For its assessment, a five-point Likert scale was applied (from nothing important to very important).

The third block aimed at assessing crowding perception, used 4 questions: the first to establish the degree of perceived crowding on a 9 points scale, widely tested in studies of this type (Shelby et al., 1989). In this scale, the range 1- 2 refers a perception “not so crowded”; 3-5 “a bit crowded”; 6-7 “moderately crowded” and 8-9 “extremely crowded”. The second question was asked to determine the positive or negative valuation of crowding using a 5 points Likert scale (from very negative to very positive). The third

question focused on evaluating the emotion regarding the degree of perceived congestion, also using a Likert scale of five points (from totally disagree to fully agree). The battery of emotions proposed by Plutchik (1980) was used, which integrates: joy, surprise, admiration, courage, sadness, fear and anxiety. The battery has been applied in recent tourism experiential studies (Hernández, Vargas & Aguilar, 2015). The fourth question was asked to determine the degree of disturbance caused by the behavior of tourists on the site, specifically actions such as: smoking in the public space, making noise, standing up to take pictures, colliding with other people, throwing garbage on the street and hindering traffic.

The statistical analysis applied was descriptive and multivariate. The exploratory review allowed the identification of possible patterns of relationship among factors that influence crowding perception according to the literature review. The principal components analysis synthesized a smaller number of variables, identifying associations that in principle were not evident. The Mann-Whitney test was carried out to verify the existence of significant differences in crowding perception and valuation among the groups surveyed in both study sites. Finally, a binary logistic regression model was used to identify variables that explain crowding perception.

Results describe the respondent profile as a predominantly foreign tourist with less than 45 years old. In most cases this person is a professional single or married with secondary or higher education, who usually travels in a group and to a lesser extent in a couple, and stays in Quito for up to 7 days, being the most frequent between 1 and 3 days.

Descriptive analysis of crowding perception exposes central tendency values close to 3, which is interpreted as slightly crowded. Although an important 22.6% of respondents perceive an extreme level of crowding.

The Mann Whitney test verified that there were no significant differences regarding crowding perception and its valuation among tourists who visited Plaza de la Independencia and La Ronda. The principal components analysis applied to the set of motivations yielded 6 factors. In the same line, this analysis applied to the set of emotions valued, resulted in the conformation of two factors or types of emotions: interest, complacency or disagreement; and, fear or disappointment.

Application of binary logistic regression model to factors and the rest of variables available in the model, explains 91% of the variability of the data, correctly classifies 98% of the cases, and allows understanding the perception of crowding through the binary conversion of the original scale.

Accordingly, the study finds no significant variation between domestic and foreign tourists respect to crowding perception, which corroborates the statements of Neuts and Nijkamp (2012) who note that most studies report significant differences in the perception of crowding basically between groups of western and eastern nationalities.

As referred by Pedersen (2002), perception of crowding is related not only to the number of people present but also to their behavioral patterns (Yen Sun & Budruk, 2015). Thus, this study confirms that littering and crashing with other people influence the crowding perception, while other behaviors do not influence such as smoking, making noise, stopping to take photographs or obstructing traffic; although in some studies these variables are associated with the quality of the tourist's experience, such as noise (Xue,

Aili & Min, 2017). This could be explained by the fact that these are open public spaces where people are accustomed to finding this type of behavior.

At an emotional level, the inverse relationship between crowding perception and the feelings of fear or disappointment is highlighted, which could be explained by the fact that part of the expectations of tourists in the cities have to do with appreciating the urban stage (Sassen and Roost, 1999) and this includes the local population and its dynamics with public space, so finding numerous people in streets and squares is attractive for tourists, and conversely, finding little presence of people can be a cause of emotions such as fear or disappointment.

Having considered in this study that the levels of perceived crowding: “not at all”, “slightly” and “moderately” refer a perception within an imaginary limit acceptable to the respondent, it is concluded that for an average density of 0.57 people / m<sup>2</sup>, most tourists surveyed (77%) perceive a slight or acceptable level of crowding in the studied tourist sites of the Historic Center of Quito.

Although this research does not detect significant differences in crowding perception between foreign and national groups; it finds them with respect to crowding valuation. In this sense, crowding valuation indicates, on the one hand, that for foreign tourists, the level of perceived crowding has a positive connotation, noting that the more people are present the feeling of fear and disappointment decreases. On the other hand, for national tourist the level of perceived crowding has a negative character, noticing the influence of people behavior, specifically when they throw garbage or impact others while they walk.

Motivations that characterize the group of tourists surveyed are related to: distraction and relaxation; conferences; family and friends; cultural heritage; bars and restaurants; business and quiet, close and similar places. On a predictive level, the study indicates that tourists are less likely to perceive extremely crowded sites, when they are motivated by business and visit nearby sites which are similar to those they usually use. On the contrary, it is more likely that they perceived extremely crowded sites when traveling with a partner or when observing other visitors throwing garbage.

From the point of view of heritage tourism management, results are favorable but should be taken with caution, since even though it is a minority, 22.6% of tourists find the sites extremely crowded. Of this percentage those who are national perceive it as something negative in their visiting experience.

In this sense, destination manager decisions can be enriched by information that comes from not only the majority but also the minority groups. It is fundamental to take into account the seal implications of World Heritage Site in Quito, and the role of visits as a vehicle to contribute to conservation and transmission of its exceptional universal value for both foreigners and residents.