

## **Residents' attitude as determinant of tourism sustainability: The case of Trujillo**

### **ABSTRACT**

This research aims to gain knowledge to understand residents' attitudes towards tourism sustainability in a destination where the main attraction is an archaeological site by analysing the effects of residents' support and perceived benefits for tourism sustainability (in economic, market and social terms). The relationships between perceived benefits and residents' support and among local involvement, attachment and perceived benefits were also examined. The proposed model was assessed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) regression. The data analysis showed that perceived benefits have a more significant effect on tourism sustainability than on residents' support. Interestingly, the influence of community involvement was found to be stronger than community attachment on perceived benefits surrounding a Peruvian archaeological site. This study can assist scholars and managers by shedding light on the understanding of tourism sustainability from a performance viewpoint that considers both financial and non-financial terms.

**Keywords:** Tourism Sustainability, Partial least squares, Community attachment, Community involvement, Benefits

### **1. Introduction**

Tourism is a silver bullet for locals. This sector rewards economic, social and market benefits through rising income and employment opportunities, fostering rural business activities, improving infrastructure, preserving the culture of the community and improving cultural exchanges (Ji, Li, & King, 2015; Mathew & Sreejesh, 2017; McGehee & Andereck, 2004; Nunkoo & So, 2015; Sinclair-Maragh, Gursoy, & Vieregge, 2015;

Steiner & Atterton, 2015; Stronza & Gordillo, 2008; Wang & Chen, 2015). Consequently, locals' perception of the benefits tourism generates defines their attitudes towards the development of the industry (Choi & Murray, 2010). Hence, residents' support should be considered to guarantee sustainable tourism development since locals are crucial agents in offering visitors quality experiences (Gursoy, Chi, & Dyer, 2009; Kim, Uysal, & Sirgy, 2013; Tolkach & King, 2015; Woo, Kim, & Uysal, 2015).

Achieving sustainable tourism is a process that entails maximizing benefits and minimizing costs while concurrently satisfying tourists and involving the community in tourism decisions (Cottrell, Vaske, & Roemer, 2013). Locals' concerns and needs should be fulfilled (Nunkoo & So, 2015) through resident empowerment to achieve this long-term desired prosperity (Boley & McGehee, 2014). Resident empowerment is achieved by involving locals in tourism planning and community attachment (Lee, 2013; Nicholas, Thapa, & Ko, 2009; Sebele, 2010; Styliadis, Biran, Sit, & Szivas, 2014; Woo et al., 2015).

Community involvement has been considered a key element that defines locals' perceived benefits since their participation in tourism planning activities permits them to design initiatives that have an effect on their daily lives (Jaafar, Noor, & Rasoolimanesh, 2015; Nicholas et al., 2009). Besides, community attachment, understood in psychological terms, has not been previously related to perceived benefits (Gursoy & Rutherford, 2004; Jurowski, Uysal, & Williams, 1997; Lee, 2013; Vargas-Sanchez, Oom do Valle, Costa Mendes, & Albino Silva, 2015).

Although it has been argued that residents' support and their perceived benefits are preconditions for tourism sustainability (Boley & McGehee, 2014; Gursoy, Chi, & Dyer, 2010; Gursoy & Rutherford, 2004; Ko & Stewart, 2002; Lee, 2013; Nicholas et al., 2009; Nunkoo & So, 2015; Sharpley, 2014), to date, no study has analysed the effects of residents' support or their perceived benefits on sustainable tourism development. The

present research also enhances current findings on the topic by examining tourism sustainability in economic, market and social terms and by providing two comparative evaluations. The first is related to the influence of perceived benefits on residents' support and tourism sustainability, and the second concerns the effects of community attachment and involvement on perceived benefits. Given these purposes, we tested five hypotheses representing (a) the relationship between residents' support and tourism sustainability, (b) the link between perceived benefits and tourism sustainability, (c) the connection between perceived benefits and residents' support, (d) the bond between local involvement and perceived benefits, and (e) the link between residents' attachment and perceived benefits. The hypotheses were examined using Partial Least Squares Structural Equation Modelling (PLS-SEM). The research setting was Trujillo (Peru), located in the Pyramids of the Sun and the Moon, which provides a new insight since few studies have examined residents' attitudes in an archaeological site context (Jaafar et al., 2015). Moreover, this study offers interesting findings by describing residents' attitudes towards a site that was facing the first stages of the involvement phase of the tourism life cycle.

## **2. Literature review**

Many studies have analysed economic, social and environmental impacts that are directly related to the triple bottom line, the basic principles that define sustainable tourism (Almeida, Balbuena, & Cortes, 2015; Boley & McGehee, 2014). Furthermore, scholars have developed scales to measure non-financial and financial performance in economic, market and social terms in arts organizations (Camarero & Garrido, 2008; Camarero, Garrido, & Vicente, 2015; Gainer & Padanyi, 2005).

### *2.1 Residents' support for tourism sustainability*

Sustainable tourism is a well-known concept that summarizes long-term tourism welfare by embracing the capabilities of future generations to fulfil their needs (Lee, 2013;

Nicholas et al., 2009). It is driven by the imperative of generating benefits for locals (Lee, 2013; Yu, Chancellor, & Cole, 2011). The dimensions of tourism sustainability include financial and non-financial terms. Several scholars have argued that customer orientation in cultural organizations leads to economic, market and social performance (Camarero & Garrido, 2008; Camarero et al., 2015; Gainer & Padanyi, 2005). The balance of these interacting dimensions must be considered a continuous process of reorientation and adaptation (Pulido-Fernández, Andrades-Caldito, & Sánchez- Rivero, 2014), where residents' willingness must be taken into account (Lee, 2013; Nicholas et al., 2009) to achieve sustainable tourism. Market performance must be achieved to attain sustainable tourism development since it ensures the long-term competitiveness of the destination by ensuring its appealing differentiation (Pulido-Fernández et al., 2014).

Residents' support has been discussed in terms of community-based tourism (Lee, 2013). Community-based tourism fosters community participation by emphasizing responsibility and social equity, by guaranteeing that the implementation of proposals are adapted to local needs, and by providing opportunities for residents (Sebele, 2010; Tolkach & King, 2015).

Although it is quite reasonable to think that residents' support influences economic, social and market welfare, no existing research has analysed this relationship. However, it has been stated that a community-based perspective is an essential precondition to sustainability (Woodley, 1993). Accordingly, residents who participate in tourism initiatives are likely to support tourism development. In this respect, it has been shown that residents' participation has a favourable influence on economic benefits in tourism destinations (Liu et al., 2014; Sebele, 2010). Moreover, Brohman (1996) has indicated that community participation implementation produces a more equal

distribution of benefits, which solves one of the main problems of sustainable tourism development. Hence, the following hypothesis is postulated:

*H1. Residents' support positively influences tourism sustainability.*

## *2.2 The effects of perceived benefits on residents' support and tourism sustainability*

Residents' perceived benefits are related to locals' subjective expectations (in terms of socio-economic and cultural values) of the personal utility derived from visitors' arrivals (Nunkoo & So, 2015). These expectations can be conceptualized in two categories: socio-economic and cultural (Gursoy & Rutherford, 2004; Ko & Stewart, 2002; Sinclair-Maragh et al., 2015). Perceived socio-economic benefits involve employment opportunities, the improvement of infrastructures, the creation of local enterprises and the contribution to local economy prosperity (Dyer, Gursoy, Sharma, & Carter, 2007; Gu & Ryan, 2008; Gursoy & Rutherford, 2004). Cultural opportunities refer to residents' motivations to preserve local culture, develop cultural activities, have cultural exchanges with visitors, and feel more attached to cultural identity (Gursoy & Rutherford, 2004; Stronza & Gordillo, 2008). Locals who receive more benefits favour the development of sustainable tourism at a higher level than do those who receive no or few profits (Jurowski & Gursoy, 2004).

In addition, it has been argued that those locals who perceive opportunities from visitors' arrivals tend to support sustainable tourism development (Gursoy, Jurowski, & Uysal, 2002; Jurowski et al., 1997; Lee, 2013). Scholars have concluded that perceived benefits influence residents' support of tourism destinations (Dyer et al., 2007; Lee, 2013; Nunkoo & Ramkissoon, 2011; Nunkoo & So, 2015; Park, Nunkoo, & Yoon, 2015; Styliadis, 2014). Residents' support is indispensable to avoid threatening sustainable tourism (Nunkoo & Ramkissoon, 2011; Rivera, Croes, & Lee, 2016). Therefore, it makes sense that if residents feel that they benefit from tourists' arrivals, this will positively

influence tourism sustainability. Additionally, it is evident that if residents perceive benefits from tourists' arrivals, they are likely to support tourism initiatives. Therefore, the next hypotheses are proposed:

*H2. Perceived benefits positively influence tourism sustainability.*

*H3. Perceived benefits positively influence locals' support of tourism initiatives.*

### *2.3 The effects of locals' involvement and attachment on perceived benefits*

Community involvement has been defined in terms of the level of collaboration of community members to fulfil common purposes for the benefit of all (Jaafar et al., 2015; Nicholas et al., 2009). Involving community members in the development of the destination is important since it allows them to have control over the activities that affect their lives, and it consequently makes them more aware of the benefits that tourism brings (Jaafar et al., 2015; Rasoolimanesh, Jaafar, Kock, & Ramayah, 2015). Interestingly, in heritage tourism contexts (such as archaeological destinations), local communities are responsible for safeguarding, defending and conserving cultural non-renewable resources (Mustafa & Tayeh, 2011; Wager, 1995). It is noteworthy that local issues can directly affect the tourist experience of visitors and, consequently, the tourist image of the destination (Okazaki, 2008).

Scholars have analysed the extent to which individuals feel involved in the tourism development of the place where they live (Nicholas et al., 2009; Lee, 2013; Rasoolimanesh et al., 2015). Although Nicholas et al.'s (2009) study stated that the level of involvement did not have a significant on perceived benefits, it has recently been demonstrated that local involvement has a positive and significant influence on perceived benefits (Lee, 2013). It has also been found that residents' participation has a favourable influence on the economic benefits of tourism destinations (Liu et al., 2014; Sebele, 2010). In this regard, Wager (1995) reasoned that involving residents in the tourism

development of the archaeological site of Angkor Wat might boost their intentions to integrate this sector into the local economy as a consequence of their perception of benefits. In addition, Aas, Ladkin and Fletcher (2005) revealed that locals were willing to be involved in decision-making processes.

Community attachment has been described in the literature as the relationship between residents and their locality. The core elements are the affect, meaning, feeling, value and connectedness to the place (Lee, 2013; Ramkissoon, Smith, & Weiler, 2013; Nicholas et al., 2009). Related studies (Lee, 2013; Lee & Shen, 2013, Yuksel Yuksel, & Bilim, 2010) have explained community attachment through the notions of place dependence, place identity and affective attachment.

Different findings concerning the link between community attachment and perceived benefits have been reported. Several scholars have argued that those locals who feel more attached perceive more socio-economic opportunities than do those who do not feel attached to their communities (Gursoy & Rutherford, 2004; Jurowski et al., 1997; Lee, 2013). However, other studies have reported negative perceptions or have not found a clear connection between these two notions (Lankford & Howard, 1994; Um & Crompton, 1987). Vargas-Sanchez et al. (2015) suggested an indirect effect of community attachment on locals' perceptions, which is attenuated by the progress of the tourism life cycle. In addition, Lee (2013) identified a positive effect of community attachment on perceived benefits. Given the previous discussion, it seems reasonable to believe that if residents feel involved and attached to the tourism development of the destination, they will likely perceive benefits from it. Thus, the next hypotheses are established:

*H4. Community involvement positively influences the perceived benefits of tourism activities.*

H5. Community attachment (5) positively influences the perceived benefits of tourism activities.

### **3. Research procedure**

#### *3.1 The study setting*

In the interest of understanding the role of residents in tourism sustainability, this research focused on the surroundings of the Pyramids of the Sun and the Moon located in Trujillo (Peru). The Peruvian northern coast is a very well-known area because of “The Moche Route”, which was designed to promote the important Moche, Chimu and Sican archaeological sites. One of the main attractions of “The Moche Route” is the Pyramids of the Sun and the Moon. The Moche Valley Board and the National University of Trujillo are managing this archaeological project. Both entities have facilitated the assembly of public, private, national and international institutions to finance the activities (Backus Foundation, Peru-France Counterpart Fund and World Monuments Fund).

In 2015, the archaeological site received 123.626 visitors (94.921 were national and 29.605 were international), and in 2016, it received 134.525 visitors (104.375 national and 30.150 international) (MINCETUR, 2016). Due to the growing number of visitors coming to visit the Pyramids of the Sun and the Moon, several interventions financed by the Peru-France Counterpart Fund have been implemented to develop the identity of the region and act as catalyst for social progress (Martorrell, 2011). Specifically, the percentage of national tourists is higher than international visitors, which raises the awareness of tourism planners about the importance of consolidating the archaeological complex as an international tourism destination.

Furthermore, in 2005, the national plan Copesco improved the access roads to the archaeological site, and in 2009, it rehabilitated the roofs of the Pyramids. Moreover, in 2007, a Museum of Moche Pyramids at the archaeological complex was opened to the

public. This archaeological complex of 60 hectares is 15 minutes from the city centre of Trujillo and is now affected by urban speculation (Martorrell, 2011). As noted by UNTWO (2016) “The Moche Route” offers unique visits since the local communities of this region have preserved traces of the Moche culture (such as beliefs, shamanism traditions and gastronomy), which are particularly appealing for international visitors.

Trujillo is a destination whose main tourism attraction is the Pyramids of the Sun and the Moon. In this context, it is particularly interesting to evaluate locals’ impressions of the expansion of tourism in the city area as part of “The Moche Route”. This broad region is exceptionally attractive, and it has been looted for many decades (Smith, 2006). Some studies have even stated that looting has been occurring since the Spanish conquered the area (Higueras, 2008; Martorrell, 2011). The target population of this study was residents who lived near the Pyramids of the Sun and the Moon since these are the local residents who are most affected by tourism development. An example of the work developed by the archaeological project is a focus on helping local artisans to strengthen their businesses and productive capacities and inserting them in the international tourism market. Furthermore, the archaeological site project has trained locals to improve the quality of food services and to become tourists’ hosts to promote their living culture. Therefore, the case of these residents is deemed the most appropriate to test the study’s hypotheses since this area has recently undergone a tourism development process.

### 3.2 *Data collection*

The target population was Trujillo residents who lived near the Pyramids of the Sun and the Moon since these are the local residents most affected by tourism development. It was not possible to find an extensive sampling frame for the residents who live in close proximity to the Pyramids of the Sun and the Moon. Therefore, it was very difficult to achieve a probabilistic sample method. As Malhotra (2010, 349) emphasized, “Quota

sampling obtains results close to those for conventional probability sampling”. We first used the quota-sampling method. The convenience sampling method was then used since it was undertaken in a context similar to other studies (Kim, Gursoy, & Lee, 2006; Yuksel et al., 2010).

We followed Kim et al.’s (2006) recommendations to avoid field researchers’ selection bias by instructing the interviewers to identify residents by considering the two control categories (sex and age) of population elements that we had advised. These quotas ensured that the composition of the sample was the same as the composition of the population with respect to these characteristics of interest (see Table I). The interviewers approached every 5th citizen to ask if they were willing to answer the questionnaire. This provided proof that every quota sample had the same chance to be selected from the population. We considered a minimum sample size of 200 respondents sufficient, as Yuksel et al. (2010) suggested in their study that also used the convenience sampling method.

A survey was conducted by means of personal interviews in May 2015. A total of 250 questionnaires were answered, and 226 questionnaires were useable. The rate of response was 90% (226/250), and there was no statistically significant difference for the characteristics of interest between those who answered and those who declined to answer, indicating that sample selection bias was not a concern (Fowler, 1984; Yuksel et al., 2010). Respondents were mainly middle-aged employees and housewives with primary or secondary education.

*[Table I. Sample profile.]*

### 3.3 *Measurement*

The constructs were adapted from earlier studies and used a seven-point Likert-type scale. Table II presents the measurement model in English, although the questionnaire was administered in Spanish.

The scale items for the first-order dimensions of community attachment (affective attachment, place identity and dependence) were adapted from Yuksel et al. (2010) and Lee (2013). The first-order dimensions for perceived benefits (perceived cultural benefits and perceived economic and social benefits) were adapted from Lee (2013). The conceptual frame for the items on socio-economic benefits was based on McGehee and Andereck (2004), Steiner and Atterton (2015) and Ji et al. (2015). The items for cultural benefits that were included in this dimension were adopted from the approaches of Sinclair-Maragh et al. (2015), Stronza and Gordillo (2008) and Wang and Chen (2015).

Items for community involvement and residents' support were adapted from Lee (2013). First-order dimensions for tourism sustainability (economic, market and social) were adapted from Camarero and Garrido (2008) and Camarero et al. (2015). The frame to include items in each of these three first-order dimensions was modified to measure these constructs in terms of economic, market and social sustainability. The adaptation modified the items' wordings to refer to the city of Trujillo and the archaeological site complex.

*[Table II. Measurement model.]*

## **4. Findings**

### *4.1 Reliability and validity evaluation*

The PLS-SEM was calculated. This technique is especially appropriate for the present study for various reasons. First, the model is a complex combination of first- and second-order constructs for which covariance-based structural equation modelling would require

a significantly higher sample size. Since the PLS-SEM is based on OLS regressions, it has a minimum requirement concerning sample size (Hair, Sarstedt, Ringle, & Mena, 2012). Second, the preliminary tests performed on our sample showed the presence of non-normal data, and the PLS-SEM is less severe when employed with these types of bias (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

Initially, the reliability and validity of the measurement model in Figure 1 was estimated. The findings of the model's reliability and convergent validity tests are presented in Tables III and IV. In Table III, all Cronbach's alphas that are presented surpassed the recommendation of .70 (Cronbach, 1951; Nunnally and Bernstein, 1994). The composite reliability indicators that Table III specifies denote the mutual variance of a group of observed variables by assessing a specific construct (Fornell & Larcker, 1981). In general terms, a composite reliability of minimum .60 is estimated to be appropriate (Bagozzi & Yi, 1988). Furthermore, the average variance extracted (AVE) was estimated for every construct, thus ensuring AVEs higher than .50 (Fornell & Larcker, 1981).

As evidence of convergent validity, the findings revealed that all items were meaningfully ( $p < .01$ ) linked to their hypothesized variables, and the size of every single standardized loading was above .60 (Bagozzi & Yi, 1988).

In Table IV, discriminant validity is examined. The shared variance between pairs of constructs was lower than the linked AVE (Fornell & Larcker, 1981). The HTMT ratio method recently proposed by Henseler, Ringle and Sarstedt (2015) was also applied to assess discriminant validity. Since every ratio was lower than 0.85 (Clark & Watson, 1995), no problems resulted. Therefore, it was concluded that the proposed model offered appropriate evidence of reliability, convergent and discriminant validity. Reliability and convergent validity were tested at the first- and second-order level for the three second-order constructs of the model.

***[Figure I. Proposed model and hypotheses.]***

***[Table III. Measurement model reliability and convergent validity.]***

***[Table IV. Measurement model discriminant validity of higher-order dimensions.]***

#### *4.2 Testing for overall measurement and structural model*

The findings of the estimation of the structural part of the model are shown in Figure II. As suggested by Hair, Ringle and Sarstedt (2011), we used bootstrapping (5000 resamples) to propose standard errors and t-values that allowed for individual sign changes (Henseler, Ringle, & Sarstedt, 2009). G\*Power 3 was used to calculate the power analysis by offering a statistical power for the  $R^2$  deviation from zero to 99%, which are above the recommended level of 80% (Cohen, 1988; Erdfelder, Lang, & Buchner, 2007). The  $R^2$  for all the dependent variables were above the cut-off level of 10% (Falk & Miller, 1992) and the  $Q^2$  statistics tests obtained by blindfolding (Stone, 1974; Geisser, 1975) were also above zero, thus revealing the predictive importance of the model (Henseler et al., 2009).

***[Table V. Hypotheses testing.]***

***[Figure II. Estimation of the proposed model.]***

#### *4.3 Hypotheses testing*

The findings show that residents' support positively and significantly influences tourism sustainability (H1;  $\beta = 0.41$ ;  $p < .01$ ).

Perceived benefits positively and significantly influence tourism sustainability (H2;  $\beta = 0.47$ ;  $p < .01$ ) and residents' support (H3;  $\beta = 0.38$ ;  $p < .01$ ). Interestingly, it has been concluded that perceived benefits influence tourism sustainability more significantly than residents' support does. The results are consistent with prior studies that revealed that cultural and economic perceived benefits influence locals' support (Dyer et al., 2007; Lee, 2013; Nunkoo & Ramkissoon, 2011; Stydilis, 2014).

Moreover, perceived benefits are positively and significantly influenced by community involvement (H4;  $\beta = 0.36$ ;  $p < .01$ ) and community attachment (H5;  $\beta = 0.14$ ;  $p < .10$ ). It is remarkable to note that community involvement influences perceived benefits more than community attachment does. In similar contexts, for different destinations in the south of Peru, researchers have shown that community participation leads to perceived benefits amongst residents (Knight & Cottrell, 2016; Mitchell & Reid, 2001; Steel, 2012). The results corroborate Lee's findings (2013) that community involvement positively influences perceived benefits. Finally, as noted, the results indicate that residents' attachment positively influences perceived benefits, as previous studies have also shown (Gursoy & Rutherford, 2004; Jurowski et al., 1997; Lee, 2013).

It is noteworthy that the impact of community involvement on perceived benefits is stronger than the effect of community attachment on perceived benefits. However, Lee's study (2013) revealed that community attachment had a higher impact on perceived benefits compared to the relationship of community involvement on perceived benefits. The difference in this study may be due to the fact that community attachment has been conceptualized across the first-order dimensions of affective attachment, place identity and dependence that refer to Trujillo. As previously stated, the residents along "The Moche Route" continue to practise Moche ancestral traditions, such as shamanism, pottery and the preparation of chicha (a beverage) (UNWTO, 2016), which means that it is plausible they feel more attached to Moche culture than to Trujillo culture. Moreover, the impact level of community involvement on perceived benefits is comparable to Lee's results (2013). In this regard, it is quite reasonable that these residents who have recently felt involved in tourism planning activities perceive benefits from this sector. Additionally, the archaeological project has involved these residents in the tourism

development activities. As previously mentioned, the archaeological project has provided management training in several tourism aspects (such as culinary and artisan training).

## **5. Discussion and implications**

This research sheds light on this topic through several academic and management contributions. From an academic viewpoint, there are three main contributions. First, this research fills the gap of studies with respect to tourism sustainability that includes market performance concepts to define this dimension. Hence, it contributes to the consideration of market orientation to conceptualize tourism sustainability. As numerous scholars have suggested, archaeological sites are tourist attractions that require the implementation of marketing strategies to ensure sustainable tourism (Alazaizeh, Hallo, Backman, Norman, & Vogel, 2016; Ely, 2013; Kavoura & Bitsani, 2013; Orbasli, 2014; Poria, Reichel & Cohen, 2011; Milman, 2015). Although some scholars have stated the need to assess the performance of cultural organizations with the inclusion of market performance (Camarero & Garrido, 2008; Camarero et al., 2015), for the first time, this dimension has been included to measure tourism sustainability. Moreover, this study contributes to the literature with respect to residents' perceptions of tourism development and to sustainable tourism studies that consider, for instance, visitors' or other stakeholders' impressions.

Second, prior related studies proved a favourable relationship between locals' perceived benefits and locals' support, but they did not assess the relationship among these constructs with tourism sustainability (Gursoy & Rutherford, 2004; Lee, 2013). The present research contributes by showing that locals' support and their perceived benefits positively influence tourism sustainability, as previous scholars have suggested (Gursoy et al., 2002; Lee, 2013; Sebele, 2010). This finding contributes to the understanding of the relevance of locals' support and their perceptions of the benefits achieved to guarantee

tourism development. Furthermore, these findings contribute to the literature on this topic by offering scholars new perspectives on different drivers of tourism sustainability.

Third, the findings reveal that the linkage between community attachment and perceived benefits is not as significant as the other relationships of this study. This may be explained by the different attitudes of residents during the advancement of tourism development (Lee, 2013; Vargas-Sanchez et al., 2015). Since Trujillo is facing the involvement stage of the tourism life cycle model, community involvement could reasonably be perceived as more significant than in other advanced stages (Sinclair-Maragh et al., 2015; Vargas-Sanchez et al., 2015). As mentioned, these residents have been recently involved in tourism development activities (such as training courses), which could cause these significant results concerning their perceived benefits. Furthermore, the link between community attachment and perceived benefits may be less significant because the residents who live near the Pyramids of the Sun and the Moon do not identify as much with Trujillo. This raises the question of whether these residents are more attached to their ancestral culture, the Moche (UNWTO, 2016). Hence, this study contributes knowledge by raising important questions about the perceptions of locals near an archaeological site.

The challenge tourism professionals are now facing is the sustainable development of destinations and, specifically, tourism heritage assets (Choi & Sirakaya, 2005). Hence, in terms of industry practice, the findings of this study are relevant for archaeological site managers, policymakers, and general tourism planners. First, it has been shown that residents' perceptions and support have a direct impact on tourism sustainability. These results contribute to the comprehension of the importance for tourism planners of considering locals' attitudes before investing in specific tourism activities. Although other scholars have suggested the relevance of recognizing residents'

needs to improve visitors' experiences (Mustafa & Tayeh, 2011), this study has revealed that residents' perceptions have a significant and positive influence on tourism sustainability. Therefore, it is recommended to periodically examine locals' attitudes in consultation processes where their opinions are considered (Gursoy & Rutherford, 2004; Styliadis et al., 2014; Vargas-Sanchez et al., 2015). This kind of communication and dialogue between locals and tourism policymakers tends to prevent and resolve the possible negative impacts on sustainable tourism (Chhabra, 2010).

Additionally, it is advised that tourism policymakers should continue to pay attention to actions that boost locals' perceived benefits, such as the recent training activities that the archaeological project has developed. Furthermore, other types of initiatives could be applied, such as those that give priority to locals for employment opportunities, support local tourism businesses, and build or improve schools, hospitals or other infrastructures (Mitchell & Reid, 2001).

It has been suggested that the distribution of benefits contributes to locals' support enhancement since it means that benefits are shared equally amongst members and not a minority of individuals (Mitchell & Reid, 2001; Sebele, 2010). Moreover, some scholars have stated that leaders should balance locals' priorities with business-related main concerns to achieve sustainable tourism (Styliadis et al., 2014). In this regard, it is advisable for tourism policymakers to promote different communication actions to inform locals of the benefits of tourism, such as a website that provides all of the information. These activities will boost residents' trust in tourism initiatives since residents will perceive tourism organizations as honest and transparent (Nunkoo & Ramkissoon, 2011).

Second, it has been shown that community involvement has a significant impact on perceived benefits. As stated, these residents have recently undergone a tourism development process that may affect their perceptions of the link between community

involvement and perceived benefits. Therefore, it is suggested that tourism policymakers of “The Moche Route” should consider the different impressions of the residents who live in each of the destinations that integrate this route (Trujillo, Chiclayo and Lamabayeque), which are undergoing different stages of the life cycle. As mentioned, policymakers should adopt a participatory approach by empowering residents in decision-making processes. Public participation could be enhanced by disseminating information regarding the benefits of tourism development and by organizing public hearings and tourism advisory committees where residents’ opinions are considered. Hence, dialogue between managers and residents should be increased, thus giving residents the opportunity to inform authorities of their interests and problems (Aas et al., 2005; Lee, 2013).

Third, the results show that community attachment influences perceived benefits, but not to the extent to which community involvement does. Although it has been observed that this might be because these residents feel more attached to their ancestral culture than to Trujillo, managers are encouraged to develop community-based initiatives so that these residents feel more attached to Trujillo since these sorts of activities encourage emotional links among community members (Gursoy et al., 2002; Lee, 2013). For instance, managers could promote tourism programmes that employ these residents to present the local traditions (such as the dance La Marinera) and their ancestral customs (for instance, how to make pottery like the Moche or their shamanism secrets).

## **6. Limitations and research directions**

There are two main limitations of this study. The convenience sampling method was used; applicants were chosen according their proximity to the Pyramids of the Sun and The Moon, the main heritage tourism attraction of Trujillo. This might not represent a reasonably broad sample of residents affected by Trujillo’s tourism development. Hence,

future studies should conduct related surveys over a broad spectrum of residents using a probability sampling method. Another limitation is related to the testing of the hypotheses. This research analyses community attachment, perceived benefits and tourism sustainability as second-order constructs. Future research should consider first-order relationships to increase knowledge and determine the best model to enhance sustainable tourism.

The research also provides several future research lines. As previously stated, it would be revealing to conduct a study that considers community attachment to the ancestral culture in the case of residents who live near the Pyramids of the Sun and The Moon. These results could offer interesting and useful insights for tourism scholars and managers by posing practical comparisons with the findings of this study.

Specifically, it would be interesting to analyse the particular case of Trujillo in future stages of the tourism life cycle. This longitudinal research would be interesting since it would provide useful insights for the management of disasters (such as the natural phenomenon known as “El Niño”) (Gutner, 2016). It would also be interesting to further describe the demographic profile of the sample by including variables such as years of residency, occupation or annual income (Mathew & Sreejesh, 2017; Stydilis et al., 2014). Several scholars have analysed residents’ attitudes regarding tourism development in different areas of Peru (Knight & Cottrell, 2016; Mitchell & Reid, 2001; Steel, 2012) and have suggested that empowerment is related to tourism employment. Thus, it may be important to analyse these considerations.

Furthermore, as suggested by Franzoni (2015), it would be interesting for future studies to analyse the relationships between the different sustainability indicators. Additionally, scholars could investigate social sustainability by measuring this scale across the socio-cultural indicators proposed in Alzboun, Khawaldah, Backman and

Moore's study (2016). Another interesting area would be to explore other factors in the hypotheses testing, such as perceived positive and negative impacts, perceived costs, visitor satisfaction, perceived environmental benefits and environmental sustainability (Choi & Sirakaya, 2005; Dyer et al., 2007; Lee, 2013; Pappas, 2014; Sirakaya-Turk et al., 2008; Styliadis et al., 2014). Additionally, future researchers are encouraged to analyse the perceived impacts of sustainable tourism and the ecological sustainable tourism development of the area (McKercher, 1993; Rivera et al., 2016; Šegota, Mihalič, & Kuščer, 2017). They should consider the effects of tourism sustainability on residents' quality of life (Mathew & Sreejesh, 2017) or the effect of empowerment (measured in psychological, political and social terms) on tourism sustainability (Boley & McGehee, 2014). It would be useful for future studies to assess the demographic profile of residents (e.g., age, monthly income, education level) in connection to their support for tourism development by including occupation and religion, as suggested by Sinclair-Maragh (2017).

Other stakeholders' considerations should be taken into account by conducting studies that continue to examine visitors' satisfaction with archaeological sites (Prayag, Hosany, & Odeh, 2013). Specifically, these studies should consider that cultural tourists are a heterogeneous group (McKercher, 2002; McKercher & Du Cros, 2003). Lastly, it would be interesting to analyse the relationship between visitors' perceived value and satisfaction in Trujillo (Rasoolimanesh, Dahalan, & Jaafar, 2016).

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