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MARKET ORIENTATION: FINDING A ROADMAP FOR SUSTAINABLE ARCHAEOLOGICAL SITES

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While there is quite substantial research on how marketing strategies for archaeological sites affect destination branding, little can be found in literature on the impact of a market orientation adoption in these heritage assets on the development of sustainable tourism. This study aims to examine and propose a market orientation model which variables best define tourism sustainability in archaeological sites. The methodology is based on a qualitative and quantitative research to empirically test the model, using an international sample of eleven heritage management experts for the qualitative study, and 129 managers of

archaeological sites worldwide for the quantitative research. This research provides empirical evidence indicating that market orientation positively influences tourism sustainability in archaeological sites, and proves the relevance of analysing the tourism functionality of these assets before implementing a market orientation plan.

Keywords: *archaeological sites, market orientation, sustainable tourism, tourist functionality, top management*

INTRODUCTION

In an increasing and competitive market of leisure and tourist attractions, archaeological tourism is gaining acceptance as many tourists are searching for a sense of identity that increases their personal attachment to society's shared values and, as a result, to certain destination (Timothy & Boyd, 2006). These tourist experiences are perceived as singular, unique and exclusive (Ely, 2013). The commercialisation of these assets has been contemplated as a branding opportunity for the tourism industry of many destinations (Tarawneh & Wray, 2016). The tourism management of these non-renewable assets requires of a specific plan in order to enhance sustainable development (Stoddard, Pollard, & Evans, 2012).

The integration of marketing strategies with sustainable principles is a growing concern (Mitchell et al., 2013), as although archaeological sites, similarly to other cultural resources such as museums, do not consciously recognize it, they are developing marketing strategies in order to boost visitor arrivals and increase earnings (Gürel & Kavak, 2010).

Until recently the main goal in these sites was to attract high number of visitors, which in the most of the cases has leaded to numerous social and economic negative impacts (Kavoura & Bitsani, 2013; Orbasli, 2014; Milman, 2015). Now, archaeological site managers are facing the challenge of guaranteeing the sustainability

of these assets by balancing their preservation and public exposition (Alazaizeh, Hallo, Backman, Norman, & Vogel, 2016).

It has been suggested that a market orientation approach has a positive impact on tourism sustainability (Iniesta-Bonilla, Sánchez-Fernández, & Jiménez-Castillo, 2016). Besides, it has been affirmed that market-orientation strategies have a positive influence in the sustainability of different cultural organisations (Gainer & Padanyi, 2005), such as museums (Camarero & Garrido, 2008) and theatres (Thomas et al., 2009). Precisely, it has been argued that marketing strategies have a direct impact in the sustainability of archaeological sites (Alazaizeh et al., 2016; Ely, 2013; Kavoura & Bitsani, 2013; Orbasli, 2014; Milman, 2015)

The aim of the present research is to identify the factors that best define tourism sustainability in archaeological sites. The current research increases findings in this area by developing two studies. A qualitative study was conducted to confirm the influence of market orientation on tourism sustainability and to detect any other variables that may also affect tourism sustainability in these assets. Besides, a quantitative research was performed to analyse the proposed model.

THEORETICAL BACKGROUND AND HYPOTHESES

Sustainable tourism

Tourism sustainability can be defined as the positive result of the tourism activity in relation to the triple bottom line, precisely concerning the economic, social, environmental and cultural benefits reported (Stoddard et al., 2012), which aim to be ensured so that future generations can also fulfil their needs. Hence, these three dimensions which are basically related to financial and non-financial performance are imperative to ensure a long-term welfare. Economic sustainability has been mostly referred to the income generated (including the new financial lines created, i.e. donations, associations

of friends, souvenirs, shop…) and the employment created, whereas social, environmental and cultural sustainability have basically been related to the place's reputation and prestige, visitors' satisfaction and the improvement of residents' standard of living (Camarero & Garrido, 2008; Gürel & Kavak, 2010).

Sustainable tourism development is a process that requires maximizing the benefits generated (in economic and social terms) while minimizing the costs created, at the same time that it is ensured visitors' and residents' satisfaction (Blasco, Recuero, Aldas, & García-Madariaga, 2018). Therefore, this approach entails not only focusing on visitors' needs but emphasizes the importance of gaining visitors' engagement to foster long-term success, in other words, the implementation of a market orientation perspective. However, the impact of market orientation on economic and social development in heritage organisations has been also scarcely examined (Pegg & Stumbo, 2012). Specifically, in museums (Camarero & Garrido, 2008) and arts organisations (Gainer & Padanyi, 2005) it has been determined that market orientation positively impacts economic and social performance. Although it has not yet been analysed, several researchers have suggested that sensitive marketing strategies enhance sustainability in archaeological sites (Ely, 2013; Milman, 2015). This is rather reasonable as the three-step approach of market orientation approach entails many marketing decisions which are strictly related to enhancing a long-term welfare. Thus, during first stage of the market orientation approach, i.e. information generation, the organization is conducting benchmarking and identification of new or changing trends, in the second phase of information dissemination there is an exchange of information regarding this new information between the organization's employees and during the last step of organizational response the revision of the service offer, the accordance between the offer and visitors' needs, the adoption of corrective measures to adjust the offer to visitors' desires and competitors reactions (Jaworski & Kohli, 1993).

Thus, it is reasonable to suggest that the adoption of an appropriate market orientation perspective in archaeological sites leads to an improvement of tourism sustainability, measured in economic, social, environmental and cultural terms.

Hypothesis 1. Market orientation positively influences tourism sustainability.

Tourist functionality as a driver for market orientation

Archaeological sites were originally built to fulfil community past demands, but were not designed to satisfy current visitor needs. These resources have passed from a product-led development approach where these sites were commodified preserving their original structure, in order to be opened to the public and educate tourists, to a more visitor-oriented perspective that considers visitors' desires and underlines the quality and exclusiveness of the experience (Alazaizeh et al., 2016).

It has been argued that heritage managers have to change their attitudes from custodial-oriented to a market-orientation approach (Evans et al., 2012). Hence, they have to examine the tourism potential of these assets, in other words, the tourist functionality, before implementing tourism development (Kavoura & Bitsani, 2013). Several scholars have concluded that it is necessary to examine the tourism potential of heritage assets before implementing tourism development (du Cros, 2001; McKercher et al., 2005). As suggested by these researchers (du Cros, 2001; McKercher et al., 2005), examining the tourism potentiality of non-renewable resources influences the implementation of tourism development, and thus of a market orientation approach.

The adequate design of the site and its surroundings will determine the future success of the marketing plan, and consequently of the sustainable tourism development (Jaafar, Noor, & Rasoolimanesh, 2015). Bearing that in mind, if a heritage asset is designed to fulfil visitors' current needs it will positively affect market orientation.

Hypothesis 2. Tourist functionality positively influences market orientation.

Top management emphasis and propensity of taking risks as drivers

Top management commitment encourages team cohesiveness, which improves market orientation adoption, as it strengthens employees' enthusiasm to track for information, share market intelligence and answer to visitors' desires (Kirca & Hult, 2009. Besides, the predisposition of taking risks managers have denote their exposure of accepting sporadic failures and willingness of fulfilling visitors' new needs (Menon, Jaworski, & Kohli, 1997). Although it has also been studied managers' attitudes toward sustainable tourism (Tay, Chan, Vogt, & Badaruddin, 2016), there is a growing need to examine the extent to which directors are involved in the development of tourism sustainability in archaeological sites. Recently, Lee, Kim, Seo, & Hight (2015) have revealed a positive impact of these two attitudes on market orientation in the hospitality sector. Hence, if leaders have an encouraging attitude and are disposed to taking risky tasks this will likely favourably influence market orientation.

Hypotheses. Top management emphasis (3) and propensity to taking risks (4) positively influences market orientation.

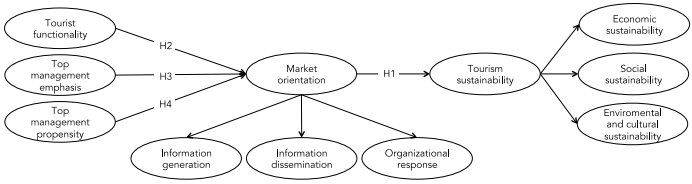

Figure 1. Sustainable market orientation for archaeological sites model..

METHODOLOGY

Qualitative research

We used the grounded theory with the support of the ATLAS/ti software to create theory based on unstructured interviews and participative observations (Strauss & Corbin, 2008). A total of 11 interviews were conducted (Table 1) from October 2010 to July 2011.

Table 1. Qualitative sample

Nº	Position held in 2011 (related to the specialization)
1	Professor of the Section of Archaeology of the Pontificia Universidad Católica del Peru. Director of the San José de Moro Archaeological Program
2	PhD in Archaeology at the University of Pennsylvania. Executive Director of Sustainable Preservation Initiative
3	Lecturer in Human Geography of Universidad Complutense de Madrid
4	Deputy Director of the Museum of Altamira
5	Co-director of the Proyecto de la Huaca de La Luna (Peru)
6	Professor of Human Geography of Universidad Complutense de Madrid
7	Director of Conjunto Arqueológico de Medina Azahara
8	Professor in the Magíster en Gestión del Patrimonio Histórico and Cultural of Universidad Complutense de Madrid
9	Director of the UNESCO Chair 'Políticas culturales and cooperación' of Universidad de Gerona
10	PhD in Forestry Engineer of Universidad Politécnica de Madrid
11	Professor of the Department of Economics of Universidad Rey Juan Carlos

The major findings were summarized into three family codes.

a) Commodification process: Experts described the process in five stages, namely, preliminary criteria, objectives fixation, design strategy, action plan, and control system. The first stage includes the descriptions of the conditions the archaeological site must have for its public opening.

b) Factors that influence sustainability: The informants were very largely tie with the concerns that affect sustainability in archaeological sites: carrying capacity, preliminary criteria, and site preservation.

c) Relations between the factors that influence sustainability and market orientation in archaeological sites: Interviewees suggested that the preliminary criteria and control system stages are when the sustainability of archaeological sites is in risk.

Quantitative research

The results of the qualitative study lead to confirm that market orientation influences tourism sustainability and emerged with two

new dimensions, namely, tourist functionality and cultural and environmental sustainability. We firstly performed a consultation with 5 experts and a pre-test of 57 individuals belonging to management teams at various archaeological sites worldwide.

No worldwide database of archaeological site managers was found. To deal with this issue, we constructed a sampling frame composed of archaeological sites through several databases (Arqueotur.org, Past Horizons, Archaeological Institute of America websites). This bounded sampling frame provided us with 2,461 population elements. Out of the 2,461 units that have comprised the sample, we have randomly selected and contacted 750 units. Finally, we have obtained 129 valid responses with a sampling error of ±8 % at a 95.46 % level of confidence (z=2).

Table 2. Sample profile

Characteristic	n	%
Number of directors in charge of the archaeological site:		
1 director	79	61,2
2 directors	35	27,1
3 directors	11	8,5
4 directors	3	2,3
5 directors	1	0,7
Years in charge of the archaeological site:		
1 - 5 years	60	46,5
6 - 10 years	27	20,9
11 - 15 years	16	12,4
16 - 21 years	9	6,9
22 –30 years	15	11,6
More than 30 years	2	1,5

Measurement model

The scale items have been rated on a seven-point psychometric Likert scale (Table 3). Tourist functionality and environmental sustainability were performed using the items generated in the qualitative research. Top management emphasis and propensity to taking risks was adapted from Jaworski and Kohli (1993). Market orientation was operationalized using the three first order dimensions information generation, information dissemination and organizational response developed by Polo, Jamilena, & Molina (2011). The first order dimensions of tourism sustainability, economic and social sustainability were adapted from Camarero and Garrido (2008) and we introduced two items (ES5 and ES6, Table 2) due to the findings

of the qualitative study. The adaptation for all these dimensions was accomplished basically modifying the items wording to refer archaeological sites and to make it more understandable for respondents.

Table 3. Measurement model

Factor	Item	Description
Tourist functionality	TFR1	The archaeological site has a commercial appealing.
	TFR2	... is appealing for visits.
	TFR3	... is prepared for public visits.
	TFR4	New discoveries are made all years.[d]
	TFR5	Other functionalities are exploit above from the tourist (educative - courses, seminars -, as a cultural space - musicals or theatrical performances -, religious - as a devotion place, etc.).
Top management emphasis	TME1	Top managers repeatedly tell their team that the archaeological site's survival depends on its adapting to market trends.
	TME2	... often tell their team to be aware of the activities that take place in the tourist products that compete with the archaeological site.
	TME3	... keep telling people around here that they must gear up now to meet visitors' future needs.
	TME4	... think that serving visitors is the most important thing the archaeological site as tourist product does.
Top management propensity to taking risks	TMP1	Top managers that are in charge of the tourist management of the archaeological site believe that higher financial, environmental and social risks are worth taking for higher rewards.
	TMP2	... like to take big financial, environmental and social risks.
	TMP3	... encourage the development of innovative marketing strategies, knowing well that some will fail.
	TMP4	... like to "play it safe".
	TMP5	... like to implement plans only if they are very certain that they will work.[d]
Information generation	IG1	For the tourist management of the archaeological site we obtain information throughout typical means of the tourism sector (such as associations, fairs, publications of the industry…).
	IG2	... we obtain information of the sector by informal means (for example, talks with members of other companies or organizations, friends, intermediaries, suppliers…).
	IG3	... we are late to detect essential changes in our sector (for example, the entrance of a new tourist product that competes with the archaeological site, technological changes that if we include them can mean an improvement of the archaeological site's appeal…).[d]
Information dissemination	ID1	During the tourist management of the archaeological site a great amount of the conversations maintained refer to visitors' trends.
	ID2	... when a member discovers something important about the competitors, he quickly alerts the rest of the members of the organization.
Organizational response	OR1	For the tourist management of the archaeological site we continuously revise so the offer (installations, level of service, complementary activities, level of prices…) is in accordance to the visitors' desires.
	OR2	... the services that are offered respond in a better way the real needs of the visitors than to our internal capacity.
	OR3	... if we find out that our visitors are not satisfied with the service quality, we immediately carry out corrective measures.
	OR4	... if we have a good marketing plan we will be able to accomplish it in an appropriate way.
	OR5	... we quickly respond to significant changes of our competitors (level of prices, timetables, installations…).
Economic sustainability	ES1	During these last three years the income the archaeological site has generated has increased.
	ES2	... employment has been created.
	ES3	... the number of visitors has increased.
	ES4	... the archaeological site has completely fulfilled its financial objectives.
	ES5	... the archaeological site has diversified its financial lines (donations, public money, associations of friends, services, goods, shop…).
	ES6	... the archaeological site presence as a tourist product has meant an improvement in the standard of living of the community.
Social sustainability	SS1	During these last three years the archaeological site has improved its reputation and prestige.
	SS2	... visitors show their enthusiasm and satisfaction after their visit.
	SS3	... many visitors have returned or have recommended the visit to others.
	SS4	...the archaeological site has contributed in the improvement locals' standard of living.
	SS5	... the archaeological site has completely fulfilled the objectives respecting conservation and the improvement of the collections it accommodates.
	SS6	...the archaeological site has contributed in raising community's awareness about the exhibitions it shows.
	SS7	... the archaeological site has contributed in increasing visitors' interest (they are more sharp in their knowledge after their visit).
	SS8	... the archaeological site has transformed into cultural reference point in this area.
Environmental and cultural sustainability	ECS1	During these last three years the archaeological site has contributed to the respect of biodiversity and cultures.
	ECS2	... the archaeological site has not been overcrowded with tourists.[r]
	ECS3	... the number of visitors has been distributed in an equitable way along all the months of the year.[r]
	ECS4	... the marketing strategy is supported by the environmental and cultural responsibility of the management.

Note: [r] dropped during the estimation of the measurement model.

Reliability and validity assessment

We estimated the model in Figure 1 using variance based structural equation modelling, also known as Partial Least Squares Structural Equation Modelling (PLS-SEM). This methodological approach was adopted because it is suitable when measures are not well defined, the relationships to be tested are predictive instead of confirmatory, and it allows examining measurement properties (outer-measurement model and inner-structural model) simultaneously (O'Cass & Sok, 2015). Besides, preliminary tests performed in the sample revealed the presence of non-normal data and PLS-SEM is less strict when analysing these kinds of data (Hair, Hult. Ringle, & Sarstedt, 2014).

The two stage approach was followed to examine the second order constructs (market orientation and sustainable tourism), which leads to undertake the repeat indicator approach to obtain the latent variable scores for the first order constructs which in the second stage are the manifest variables in the second order constructs (Hair et al., 2014). All the constructs analysed in the outer model were reflective which were evaluated checking the indicator reliability (significant standardized loadings higher than .70; Hulland, 1999), internal consistency reliability (Composite Reliability-CR, higher than. 70; Bagozzi & Yi, 1988), the convergent validity (Average Variance Extracted-AVE higher than .50; Bagozzi & Yi, 1988) and discriminant validity (each construct's AVE higher than its squared correlation with any other construct; Fornell & Larcker, 1981). The measurement model presented in Tables 4 and 5 shows in general good reliability and validity properties. Although two Cronbach's alphas were lower than .70, Hair et al. (2014) suggested PLS-SEM selects the indicators according to their individual reliability and, consequently, it is more technically appropriate to apply composite reliability as this measure considers different outer loadings of the indicator variables.

Table 4. Measurement model reliability and convergent validity

Factor	Item	Standardized loadings	t-value (bootstrapped)	CA	CR	AVE
Tourist functionality	TFR1	0.763	17.350	0.810	0.875	0.637
	TFR2	0.787	19.197			
	TFR3	0.860	36.090			
	TFR5	0.779	18.113			
Top management emphasis	TME1	0.755	14.922	0.829	0.886	0.660
	TME2	0.825	26.791			
	TME3	0.851	29.319			
	TME4	0.815	24.213			
Top management propensity to taking risks	TMP1	0.898	43.121	0.874	0.914	0.727
	TMP2	0.856	24.246			
	TMP3	0.844	28.602			
	TMP4	0.811	23.343			
Information generation	IG1	0.879	35.309	0.742	0.885	0.794
	IG2	0.904	61.542			
Information dissemination	ID1	0.847	27.170	0.507	0.801	0.669
	ID2	0.788	15.970			
Organizational response	OR1	0.516	5.391	0.776	0.849	0.536
	OR2	0.786	23.971			
	OR3	0.787	18.476			
	OR4	0.685	12.871			
	OR5	0.841	35.274			
Economic sustainability	ES1	0.746	13.206	0.801	0.857	0.500
	ES2	0.598	6.717			
	ES3	0.744	14.209			
	ES4	0.708	10.961			
	ES5	0.745	14.171			
	ES6	0.691	11.889			
Social sustainability	SS1	0.810	21.261	0.922	0.936	0.648
	SS2	0.865	28.045			
	SS3	0.874	31.085			
	SS4	0.704	14.878			
	SS5	0.722	14.328			
	SS6	0.835	26.437			
	SS7	0.852	27.463			
	SS8	0.760	15.636			
Environmental and cultural sustainability	ECS1	0.813	11.140	0.592	0.830	0.709
	ECS4	0.870	22.285			
Market orientation	Information generation	0.806	23.663	0.806	0.886	0.722
	Information dissemination	0.890	46.568			
	Organizational response	0.851	26.981			
Tourism sustainability	Economic sustainability	0.835	30.886	0.815	0.890	0.729
	Social sustainability	0.902	48.803			
	Environmental and cultural sustainability	0.822	20.697			

Note: CA=Cronbach's alpha; CR=Composite Reliability; AVE=Average Variance Extracted
All loadings are significant at p < .01 level.

Table 5. Measurement model discriminant validity

Factor	F1	F2	F3	F4	F5
F1. Market orientation	0.850	0.828	1.074	0.918	0.653
F2. Tourism sustainability	0.679	0.854	0.715	0.641	0.280
F3. Tourist functionality	0.878	0.597	0.798	0.664	0.467
F4. Top management emphasis	0.758	0.537	0.558	0.812	0.711
F5. Top management propensity to taking risks	0.548	0.236	0.396	0.604	0.853

Note: Diagonal values are AVE square root, values below the diagonal are latent variable correlations values above the diagonal are HTMT ratios.

Results and discussion

Table 6 presents the results of the inner estimation of the model. Bootstrapping with individual sign changes of 5,000 samples was accomplished to determine parameters significance, and R2 was higher than .40 for all the dependent constructs that assures a power higher than .80 (Cohen, 1998) for the inferential statistics. Predictive relevance of the model is well verified with a positive Stone-Geisser's Q2 obtained using blindfolding (Henseler, Ringle, & Sinkovics, 2009).

Table 6. Hypotheses testing

Hypotheses	Standardized beta	t-value (bootstrapped)
H1: Market orientation --> Tourism sustainability	0.680 ***	12.291
H2: Tourist functionality --> Market orientation	0.651 ***	15.565
H3: Top management emphasis --> Market orientation	0.345 ***	7.269
H4: Top management propensity to taking risks --> Market orientation	0.083 *	1.880

***p<0.01; **p<0.05; *p<0.10
R^2 (market orientation)=0,876; R^2 (tourism sustainability)=0,457
Q^2 (market orientation)=0,619; Q^2 (tourism sustainability)=0,324

Additionally, Table 6 shows that, as hypothesized, market orientation influences positively tourism sustainability (H1; β=0.68; $p<0.01$). This is in line with the conclusions of several studies conducted in archaeological sites (Martin-Ruiz, Castellanos-Verdugo, & Oviedo-García, 2010; Mustafa & Tayeh, 2011; Wager, 1995), which specified that implementing an appropriate plan is essential for developing long-term tourism. Results are consistent with the study conducted in museums by Camarero and Garrido (2008), where it was concluded that market orientation influences economic and social performance. Other studies, conducted also in similar contexts have revealed that customer orientation leads to a superior economic performance (Gainer & Padanyi, 2005).

Tourist functionality has a significant effect on market orientation (H2; β=0.65; $p<0.01$). As suggested in the findings of the qualitative study and by other researchers (Jaafar et al., 2015; Kavoura & Bitsani, 2013), examining the tourism potentiality of these non-renewable resources influences the implementation of tourism development, and thus of a market orientation approach.

Top management emphasis has a positive impact on market orientation (H3; β=0.34; $p<0.01$) and top management propensity to taking risks also has a positive effect on market orientation (H4; β=0.08; $p<0.1$). Top management emphasis was found to have a significant positive impact on market orientation, as also other previous studies had concluded (Jaworksi & Kohli, 1993; Lee, Kim, Seo, & Hight, 2015). However, top management propensity to taking risks was identified to have a positive effect on market orientation, but not as significant as top management emphasis. This finding could be due to managers' attitudes toward accepting failures, which could lead them to avoid taking risks (Menon et al., 1997). Managers have the capacity of encouraging their employees and setting the tone to achieve marketing orientation implementation (Lee et al., 2015).

Conclusions

Although there is a growing concern regarding the tourism sustainability of archaeological sites (Boukas, 2013; Jaafar et al., 2015; Martin-Ruiz et al., 2010; Mustafa & Tayeh, 2011), this is the first study that analyses the influence of a market orientation approach on the tourism sustainability of archaeological sites.

Concerning theoretical implications, there are two main contributions. First, it has been concluded that the adoption of a market orientation approach in archaeological sites favours sustainable tourism development. This result adds value to existing tourism research not only by studying these specific heritage assets but also by considering environmental and cultural sustainability. Market orientation assists sustainable development by anticipating and meeting market needs, applying profitable, social and environmental responsible value systems and, generating favourable long-term outcomes in economic, social and cultural-environmental terms (Mitchell, Wooliscroft & Higham, 2013).

Second, tourist functionality has been determined as a driver of market orientation. Moreover, this relationship is found to be the most significant of the current study. Although scholars have stated the relevance of knowing before implementing a management plan the tourist potentiality of the heritage resource, for first time it has been proved its significance. Besides, it has been also demonstrated that heritage managers' attitudes affect market orientation in archaeological sites. Hence, this research has identified functionality, top management emphasis and propensity to taking risks as drivers of market orientation in archaeological sites.

In terms of practice, our research revealed the linkage between tourist functionality and market orientation as the most meaningful of the proposed model. This result is rather reasonable as archaeological sites have been commodified preserving their original structures, to adjust to visitors' needs and desires. Therefore, archaeological site managers should evaluate the tourist functionality of these resources before considering a development plan, by supervising the items proposed in this research (Table 2).

Besides, the second most significant relationship is between market orientation and tourism sustainability. Market orientation is a prerequisite instrument for achieving a competitive advantage, and it is essential for the organization's long-term run but also for satisfying

visitors' and residents' needs (Jaafar et al., 2015; Martin-Ruiz et al., 2010). Hence, employees of an archaeological site should follow the three-step approach in order to implement market orientation (Jaworski & Kohli, 1993).

Precisely, it has been proved that managers' commitment enhances market orientation. As suggested by Martin-Ruiz et al.'s (2010) managers should aim to improve the services delivered, by encouraging employees to obtain visitors' information throughout different means, communicating their findings across all members, and proposing solutions to improve the archaeological site's services. Moreover, it is recommended that managers undertake some risks relative to solve visitors' needs and desires although some of these initiatives fail as it improves innovation by offering valuable insights to take into consideration.

Regarding limitations, firstly, this research is restricted by the sample size of both studies. Due to the scarcity of literature relative to the value creation in archaeological sites, we had to conduct two studies. The qualitative research was conducted with eleven experts, which could be improved by increasing the sample size in future studies. Also, the sample size of the quantitative study was of 129 managers of archaeological sites worldwide, and widely dispersed in geographical terms. Although the sample size is higher than the recommendation suggested by Gefen, Straub & Boudreau's (2000), future scholars are prompted to test the model to a larger sample.

Secondly, in the proposed model market orientation and tourism sustainability are second order constructs that comprise associated concepts to gain parsimony and understand relations with other variables. As a result, we have not measured separate effects of these dimensions. Other approaches could be adopted such as value orientation (Alazaizeh et al., 2016). Besides, it would be very interesting to measure their willingness to donate for the restoration these sites and clarify the links between emotions and attitudes towards heritage sustainability, as it would facilitate the preservation of these non-renewable assets. Additionally, residents' perspective could be evaluated by measuring the impact of support for tourism development on tourism sustainability (Rasoolimanesh, Ringle, Jaafar, & Ramayah, 2017).

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