

Este es un manuscrito aceptado de un artículo publicado por Taylor & Francis en Current Issues in Tourism el 21 de marzo de 2021, disponible en: <https://doi.org/10.1080/13683500.2021.1902287>

## **Incentives and constraints for archeological tourism: A case study in Spain**

Maribel Rodríguez<sup>a</sup>, Leonor M. Pérez<sup>a</sup>

*<sup>a</sup>Department of Business Administration, University of Córdoba, Córdoba, Spain*

Maribel Rodriguez, Faculty of Labour Sciences and Tourism, University of Cordoba, Córdoba, Spain. Tel.: +34957211097. E-mail: es3rozai@uco.es

Leonor M. Pérez, Faculty of Labour Sciences and Tourism, University of Cordoba, C/ Adarve 30, 14071, Córdoba, Spain. Tel.: +34957212510. E-mail: lperez@uco.es.

Corresponding author.

# **Incentives and constraints for archeological tourism: A case study in Spain**

Archeological tourism has great potential for development in numerous destinations. However, literature on archeotourism is scarce and empirical data are very limited. This paper analyzes the incentives to participate in archeotourism and, following the Dual Factor Theory, examines how incentives and constraints may affect the intention to participate in archeotourism in Spain. Data were collected from 521 domestic tourists. An exploratory factor analysis revealed 6 dimensions of incentives: core archeological attraction, aspects that favour the acquisition of historic-cultural knowledge, archeotourism development of the destination, participatory archeological activities, extra archeological attraction and leisure activities. A multiple regression analysis showed that, except leisure activities, all dimensions are crucial incentives for behavioral intention. However, for the oldest age groups, in addition to leisure activities, participatory archeological activities and extra archeological attractions are also not key incentives. On the other hand, among the constraints analyzed, only intrapersonal barriers significantly affect tourists' intentions.

Keywords: dual factor theory; pull factor; constraint; behavioral intention; archeological tourism

## **Introduction**

Archeological tourism can be defined as that type of tourism in which the primary or secondary motivation of the trip is archeology. It is a form of heritage tourism, since archeological heritage is a part of heritage in general (Howard, 2003).

Archeotourism has been developed in countries like Egypt, Italy or Mexico, whose archeological sites are considered as cultural icons and have a long tradition in valorizing heritage (Tresserras, 2004). In general, archeotourism is still an underdeveloped phenomenon in numerous destinations, although it is a growing sector (Koren-Lawrence, Collins-Kreiner & Israeli, 2020). Spain, for example, has a great

archeological heritage. However, archeotourism still has great potential, being quite unknown to both citizens and tourists, and it is seen as a challenge (Tresserras, 2008).

For a successful development of this type of tourism, in Spain and in other countries where archeotourism is in its early stages of development, it is essential to understand the factors influencing the intention to participate in archeological tourism. However, literature on archeotourism is scarce and empirical data are very limited (Ercolano, Gaeta & Parenti, 2018). No study has attempted to determine empirically the factors influencing the intention to participate in archeotourism.

Previous research on predictions of tourists' behavioral intentions focuses mainly on the Theory of Planned Behavior (TPB) (Fishbein & Ajzen, 1975). Nevertheless, TPB has been criticised for not considering motivation (Bagozzi & Kimmel, 1995). Motivation is a critical variable for explaining tourist behaviour (Tangeland, Vennesland & Nybakk, 2013). On the other hand, TPB focuses on enablers of tourist behaviour while ignoring inhibitors. The Dual Factor Theory (Herzberg, Mausner & Snyderman, 1959) suggests that consumers, in the process of adopting a behavior, can be influenced by two types of influences, facilitators or inhibitors, which may promote or prevent respectively the adoption of behaviors (Rey-Moreno & Medina-Molina, 2020). The analysis of both facilitators and inhibitors provides a complete understanding of the factors affecting tourist behavior, as these factors are not opposites of each other (Cenfetelli, 2004).

This study, following the Dual Factor Theory, proposes a duality of factors that simultaneously influence tourists' behavioral intention. Regarding facilitators and following the push-pull motivation theory (Uysal & Jurowski, 1994), which is generally accepted as a key approach to understand tourists' decision-making processes, this study focusses on pull factors as incentives that act as enablers of tourist behavior to

participate in archeotourism. Pull factors are external forces generated by the attributes of the destination or tourism product (e.g. open-air archeological sites) that may stimulate individuals to visit a specific destination or to get involved in a certain activity (Klenosky, 2002). People can be attracted to a given archeological tourism destination because of a number of attributes that make that destination more attractive than another. These attributes can be very diverse (Tresserras, 2009; Willis, 2009). Some of these incentives are directly related to the core product (archeological remains), while others are more connected to the environment and the tourist offer in the area (e.g. restaurants with historic menus). To our knowledge, no study determines empirically the main critical attributes of the experience of archeotourism.

Regarding inhibitors and following the hierarchical model of leisure constraints (Crawford & Godbey, 1987), one of the most widely used theories of leisure restrictions and with great potential to determine travel behavior (Nyaupane & Andereck, 2008), this study considers three types of barriers as inhibitors: (i) intrapersonal barriers, affecting preference formation (e.g. there are other destinations that are more interesting for the individual than those related to archeotourism); (ii) interpersonal barriers, influencing preferences and participation (e.g. the preferences of family or friends with whom an individual may make the journey); and (iii) structural barriers, interfering between a preference for an activity and the real participation in it (e.g. cost, time, distance). These barriers have a hierarchy (Crawford, Jackson & Godbey, 1991). First, individuals find constraints at the intrapersonal level. Second, and after overcoming the intrapersonal barriers, individuals may find constraints at the interpersonal level. Finally, and only when all the previous barriers are overcome, structural barriers appear. To date, no study has analyzed tourists' barriers in the context of archeological tourism.

This paper has the following objectives: (i) to determine the pull factors or incentives to participate in archeotourism; (ii) to investigate, according to the Dual Factor Theory, how incentives and constraints may influence tourists' intention to participate in this type of tourism; and (iii) to analyze whether the effects of incentives and constraints on behavioral intention differ depending on the sociodemographic characteristics of the tourists, such as age.

Some authors demonstrate that pull motivations have a direct influence on behavioral intentions (Sato et al., 2018; Tangeland et al., 2013), while others found that barriers are negatively related to those intentions (Funk, Alexandris & Ping, 2009; Hung & Petrick, 2012). In this light, the following hypotheses (H) are proposed:

H1: Pull factors have a positive influence on tourists' intention to participate in archeotourism.

H2: Intrapersonal, interpersonal and structural constraints have a negative influence on tourists' intention to participate in archeotourism.

Figure 1 shows the research model proposed. Based on a sample of 521 tourists, this study is among the first that provide empirical support to improve the understanding of archeotourism with equivalent robust data.

Take-in-Figure-1

After the introduction, the second section includes the research methods; the third section shows results and discussion; while the fourth section presents conclusions, managerial implications and limitations.

## **Methods**

A questionnaire was designed for potential domestic tourists of archeotourism in Spain.

Firstly, the literature review carried out in the field of archeological tourism (Ercolano et al., 2018; Li & Qian, 2017; Ramsey & Everitt, 2008; Ross & Saxena, 2019; Treserras, 2008; 2009; Walker & Carr, 2013; Willis, 2009) generated a list of 30 pull factors. Secondly, a group of experts was selected (2 experts in archeology and 2 individuals who had previously participated in archeotourism). After their discussion, the list was reduced to 25 items (see Table 1). These items were rated by using a 5-point Likert-type scale (1=“not important”, 5=“very important”).

Following previous studies (Getz & Brown, 2006; Marzo-Navarro & Pedraja-Iglesias, 2012), the survey also included an intrapersonal barrier, an interpersonal barrier and three structural barriers, all of them measured through a single item. Behavioral intention was measured with 3 items (Maro-Navarro & Pedraja-Iglesias, 2012). In all cases, a 5-point Likert-type scale was used (1=“totally disagree”, 5=“totally agree”).

A pre-test was conducted with 20 individuals, and as a result no changes were made. Then, the questionnaire was administered online through a blog, social networks and the newsletter of an association of archeology. The aim was to examine people with a certain interest in archeology on the premise that they are more likely to be archeological tourists than the general population. Finally, 521 valid questionnaires were collected. Among the respondents, 58.3% were women, and their age mainly ranged from 18 to 34 years (34.4%), 35 to 49 years (27.5%) and 50 to 64 years (25.8%). Most of them had university education (86.9%), and the predominant domestic income level was between 1500 and 3000 (42.9%) and between 700 and 1500 (30.8%)euro per month. Half of the respondents had a very high interest in archeology (50.4%), most of them considered that they had a medium or high level of knowledge about archeology (65%), and almost all of them had visited an archeological site in the last 5 years

(96.9%). Moreover, 31.7% of the respondents belonged to a club or association related to archeology, and 34% affirmed that their profession was connected to archeology.

## **Results**

The dimensions of the incentives were determined using exploratory factor analysis with varimax rotation and for factors with eigenvalues greater than 1.0. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.854 (higher than the recommended threshold of 0.6), and Bartlett's test of sphericity was significant ( $\chi^2=6673.212, p=0.000$ ). Moreover, the Cronbach's alpha coefficients of the resulting factors were higher than 0.7, confirming good internal reliability. The results show 6 factors that explain the 65.7% of the variance (Table 1). The first factor groups the items related to extra archeological attractions that archeological destinations can offer. The second factor includes those items related to the core attraction of archeotourism. The third component groups those aspects related to leisure activities in the area. The fourth factor reflects those aspects related to the development of archeotourism of the destination. The fifth component includes aspects that favor the acquisition of historic and cultural knowledge. Finally, the sixth factor includes two items related to archeological activities with a high level of involvement.

### Take-in-Table-1

After establishing the dimensions of the incentives, a multiple regression analysis was performed. The dependent variable was the average value of the three items related to behavioral intention, while the independent variables were the detected dimensions of the incentives and the potential barriers.

The results are shown in Table 2. H1 and H2 are partially supported, and adjusted  $R^2$  is 0.30. H1 is partially supported as all the dimensions of the incentives have a direct and positive influence on behavioral intentions, but one of them (F3, leisure activities) does not have a significant influence. The core archeological attraction (F2) is the factor that has the greatest positive effect on the intention ( $\beta=0.332$ ), followed by those aspects that favor the acquisition of historic and cultural knowledge (F5) ( $\beta=0.249$ ), the archeological tourism development of the destination (F4) ( $\beta=0.208$ ), the participatory archeological activities (F6) ( $\beta=0.136$ ), and finally the extra archeological attractions (F1) ( $\beta=0.081$ ). F1 and F3 are more recreation-oriented incentives. According to Brida, Nogare & Scuderi (2016), when examining museum attendance, individuals with a more recreational motivation are occasional cultural tourists who visit museums only on holiday due to temporary lack of substitute experience goods or compliance with a must-do it, while true cultural tourists are individuals with a more intellectual motivation who generally have a large amount of cultural capital.

#### Take-in-Table-2

H2 is also partially supported. Personal constraints and cost have a negative effect on behavioral intentions, but time and distance are positive – but very close to zero. Moreover, only the intrapersonal constraint has a significant effect ( $\beta = -0.125$ ). Thus, according to previous studies (Zhang et al., 2016), intrapersonal barriers are the most important constraint.



In general, in line with previous research these findings show that, when trying to predict tourists' behavior, both pull factors (Sato et al., 2018; Tangeland et al., 2013) and constraints (Funk et al., 2009; Hung & Petrick, 2012) need to be considered.

Finally, a series of multiple regression analyses were carried out to explore the relationships between the variables for 3 age groups. The results show that the results were similar for the youngest age group (18-34 years, n=173). Nevertheless, for the oldest age groups (35-49 years, n=138; 50 years or older, n=191), in addition to leisure activities (F3), participatory archeological activities (F6) and extra archeological attractions (F1) did not significantly influence behavioral intentions. These results are partially in line with the finding by Lynch et al. (2011), who pointed out that, among the cultural tourists in Mi'kmaw (Canada), older tourists had lower interest in activities that required more time and physical activity.

## **Conclusion**

This paper contributes to the understanding of archeotourism, as it identifies pull factors or incentives for tourists. Moreover, to our knowledge, this study is among the first to provide empirical evidence of the role of incentives and constraints on the behavioral intentions of archeological tourists. In general, this study is among the first to provide empirical evidence with equivalent robust data about consumption of archeotourism.

As practical implications, agents interested in promoting archeotourism should design strategies to increase interest in archeology. Simultaneously, all the agents involved in archeotourism should develop an adequate tourism offer, where the key incentives identified in this research should be borne in mind. When people have overcome their personal barriers, they must find an offer that suits their desires.

The main limitation of this study is that it was conducted only in Spain. Future research should replicate this study in other countries. Moreover, about one third of the

respondents was member of an archaeological society and/or their profession was connected to archeology. Consequently, the results may not be generalizable to the general population. In addition, and considering the deep impact of the COVID-19 pandemic on travelling and tourism, together with the profound global economic crisis, it is possible that the effect of the incentives and barriers on the intention to participate in archeotourism has changed. Further studies should replicate this research after the COVID-19 pandemic to evaluate its effect. Finally, as future lines of research, we suggest including push factors in the analysis, further exploration of the intrapersonal constraints to identify their underlying dimensions, and the analysis of the relationship between incentives and constraints.

## References

- Bagozzi, R.P., & Kimmel, S.K. (1995). A comparison of leading theories for the prediction of goal-directed behaviours. *British Journal of Social Psychology*, *34*, 437-461.
- Brida, J.G., Nogare, C.D., & Scuderi, R. (2016). Frequency of museum attendance: Motivation matters. *Journal of Cultural Economics*, *40*, 261-283.
- Cenfetelli, R. (2004). Inhibitors and enablers as dual factor concepts in technology usage. *Journal of the Association for Information Systems*, *5*(11-12), 472-492.
- Crawford, D.W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences*, *9*(2), 119-127.
- Crawford, D.W., Jackson, E.L., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences*, *13*(4), 309-320.
- Ercolano, S., Gaeta, G.L., & Parenti, B. (2018). Pompeii dilemma: A motivation-based analysis of tourists' preference for “superstar” archaeological

attractors or less renowned archaeological sites in the Vesuvius area. *International Journal of Tourism Research*, 20, 345–354.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading: Addison-Wesley.

Funk, D.C., Alexandris, K., & Ping, Y. (2009). To go or stay home and watch: exploring the balance between motives and perceived constraints for major events: a case study of the 2008 Beijing Olympic Games. *International Journal of Tourism Research*, 11(1), 41-53.

Getz, D., & Brown, G. (2006). Critical success factors for wine tourism regions: A demand analysis. *Tourism Management*, 27, 146–158.

Herzberg, F., Mausner, G., & Snyderman, B.B. (1959). *The Motivation to Work*. New York: John Wiley & Sons.

Howard, P. (2003). *Heritage: Management, interpretation, identity*. Continuum International Publishing Group.

Hung, K., & Petrick, J. F. (2012). Comparing constraints to cruising between cruisers and non-cruisers: a test of the constraint-effects-mitigation model. *Journal of Travel & Tourism Marketing*, 29, 242–262.

Klenosky, D. (2002). The pull of tourism destinations: a means-end investigation. *Journal of Travel Research*, 40(4), 385–395.

Koren-Lawrence, N., Collins-Kreiner, N., & Israeli, Y.H. (2020). The future of the past: Sustainable management of archaeological tourist sites – The case study of Israel. *Tourism Management Perspectives*, 35, Article 100700.

Li, H., & Qian, Z. (2017). Archaeological heritage tourism in China: the case of the Daming Palace from the tourists' perspective. *Journal of Heritage Tourism*, 12(4), 380-393.

Lynch, M.F., Duinker, P.N., Sheehan, L.R., Chute, J.E. (2011). The demand for Mi'kmaw cultural tourism: Tourist perspectives. *Tourism Management*, 32, 977-986.

Marzo-Navarro, M., & Pedraja-Iglesias, M. (2012). Critical factors of wine tourism: incentives and barriers from the potential tourist's perspective. *International Journal of Contemporary Hospitality Management*, 24(2), 312-334.

Nyaupane, G.P., & Andereck, K.L. (2008). Understanding travel constraints: application and extension of a leisure constraints model. *Journal of Travel Research*, 46(4), 433-439.

Ramsey, D., & Everitt, J. (2008). If you dig it, they will come! Archaeology heritage sites and tourism development in Belize, Central America. *Tourism Management*, 29, 909-916.

Rey-Moreno, M., & Medina-Molina, C. (2020). Dual models and technological platforms for efficient management of water consumption. *Technological Forecasting & Social Change*, 150, Article 119761.

Ross, D., & Saxena, G. (2019). Participative co-creation of archaeological heritage: Case insights on creative tourism in Alentejo, Portugal. *Annals of Tourism Research*, 79, Article 102790.

Sato, S., Kim, H., Buning, R.J., & Haradad, M. (2018). Adventure tourism motivation and destination loyalty: A comparison of decision and non-decision makers. *Journal of Destination Marketing & Management*, 8, 74-81.

Tangeland, T., Vennesland, B., & Nybakk, E. (2013). Second-home owners' intention to purchase nature-based tourism activity products: A Norwegian case study. *Tourism Management*, 36, 364-376.

Tresserras, J.J. (2004). El arqueoturismo o turismo arqueológico: un paso más para la valorización del patrimonio arqueológico. *Boletín GC: Gestión Cultural*, 9, 1-7.

Tresserras, J.J. (2008). Turismo arqueológico. In D. López & J.I. Pulido (Eds.), *La actividad turística española en 2007* (pp. 676-690). Castellón: Editorial Universitaria Ramón Areces.

Tresserras, J.J. (2009). *Turismo arqueológico no Parque Nacional da Serra da Capivara (Piauí – Brasil): Estudo da demanda nacional e internacional*. Brasília, DF: IABS Editora.

Uysal, M., & Jurowski, C. (1994). Testing the push and pull factors. *Annals of Tourism Research*, 21(4), 844–846.

Walker, C., & Carr, N. (2013). *Tourism and archaeology: Sustainable meeting grounds*. Walnut Creek, CA: Left Coast Press.

Willis, K.G. (2009). Assessing visitor preferences in the management of archaeological and heritage attractions: a case study of Hadrian's Roman Wall. *International Journal of Tourism Research*, 11, 487–505.

Zhang, H., Yang, Y., Zheng, C., & Zhang, J. (2016). Too dark to revisit? The role of past experiences and intrapersonal constraints. *Tourism Management*, 54, 452-464.

Table 1. Exploratory factor analysis: Incentives.

	Mean	Standard deviation	F1	F2	F3	F4	F5	F6
Open-air archeological sites	4.560	0.700	0.082	<b>0.791</b>	-0.067	0.086	0.237	0.160
Underground archeological sites	4.440	0.800	0.066	<b>0.839</b>	-0.051	0.071	0.149	0.134
Caves and rock shelters	4.260	0.880	0.170	<b>0.736</b>	0.077	-0.079	0.074	0.086
Museums or archeological collections	4.380	0.810	0.128	<b>0.689</b>	-0.106	0.093	0.267	0.150
Dramatized visits to archeological sites	3.710	1.120	<b>0.736</b>	0.220	0.046	0.056	0.173	0.122
Light and sound shows at archeological sites	3.370	1.180	<b>0.842</b>	0.039	0.122	0.095	0.066	-0.055
Festivals and concerts at archeological sites	3.340	1.230	<b>0.704</b>	0.001	0.177	0.153	0.085	-0.183
Historical recreation events	3.720	1.100	<b>0.772</b>	0.127	0.094	0.073	0.172	0.242
Roman or Medieval fairs and markets	3.160	1.240	<b>0.676</b>	0.136	0.155	0.053	-0.068	0.261
Restaurants with historic menus	3.150	1.250	<b>0.610</b>	0.105	0.313	0.034	0.093	0.233
Archeological-related projects where volunteers can participate	3.580	1.350	0.235	0.259	0.052	0.048	0.187	<b>0.800</b>
Participatory activities in experimental archeology	3.710	1.280	0.159	0.423	0.082	-0.009	0.194	<b>0.770</b>
Visit guided by an expert in archeology	4.531	0.757	0.129	0.202	-0.039	0.296	<b>0.622</b>	0.034
Mixture of cultures	4.517	0.671	0.131	0.243	0.070	0.110	<b>0.826</b>	0.158
Historical heritage of the area	4.538	0.662	0.116	0.272	0.067	0.075	<b>0.804</b>	0.164
The place is famous due to its archeological remains	3.462	1.161	0.018	0.035	0.157	<b>0.882</b>	0.053	-0.004
Fame of the archeological heritage of the area	3.333	1.153	0.051	0.011	0.204	<b>0.864</b>	0.069	-0.039
Well-defined archeological routes in the area	4.010	0.944	0.122	0.206	0.286	<b>0.529</b>	0.367	-0.010
Organized tours of archeological tourism	3.679	1.167	0.258	0.026	0.163	<b>0.645</b>	0.265	0.129
Offer of recreational and leisure activities	3.258	1.169	0.331	-0.071	<b>0.548</b>	0.415	0.073	0.146
Being able to taste local gastronomy	3.592	1.127	0.203	-0.095	<b>0.722</b>	0.105	0.246	-0.012
Being able to go shopping	2.425	1.139	0.174	0.012	<b>0.634</b>	0.333	-0.109	0.043
Being able to enjoy nature	3.988	0.904	0.094	0.199	<b>0.629</b>	-0.082	0.295	-0.045
Entertainment activities for children	2.504	1.324	0.062	-0.095	<b>0.654</b>	0.184	-0.054	0.254
Nice weather in the area	3.033	1.160	0.158	-0.097	<b>0.638</b>	0.224	-0.187	-0.110
<i>Factor variance (%)</i>	-	-	14.6	11.9	11.4	11.2	9.8	6.9
<i>Accumulated variance %</i>	-	-	14.6	26.5	37.9	49.1	58.9	65.7
<i>Crobanch's alpha</i>	-	-	0.856	0.821	0.790	0.825	0.794	0.861

Table 2. Regression results, being the dependent variable the average value of the three items related to behavioral intention.

	Standardized Coefficients (Beta)	T-value	Sig.
(Constant)		45.051	0.000***
F1:Extra archeological attraction	0.081	2.145	0.032*
F2:Core archeological attraction	0.332	8.168	0.000***
F3:Leisure activities	0.010	0.262	0.793
F4:Development of archeotourism	0.208	5.405	0.000***
F5:Historic-cultural knowledge	0.249	6.461	0.000***
F6:Participatory archeological activities	0.136	3.354	0.001**
Intrapersonal barrier: There are other destinations that are more interesting for me than those related to archeotourism	-0.125	-2.533	0.012*
Interpersonal barrier: There are other destinations related to archeotourism that are more interesting for my family/friends	-0.080	-1.793	0.074
Structural barrier. Cost: The cost of travel related to archeotourism is very high	-0.011	-0.239	0.812
Structural barrier. Time: Much free time is needed to participate in archeotourism	0.015	0.313	0.754
Structural barrier. Distance: To participate in archeotourism. it is important that the area to visit is near.	0.034	0.781	0.435

Figure 1. Research model proposed.

