

AUTHOR INFORMATION PAGE

Author Name and Surname: Fatoş Metin, Mustafa Doğan

Academic/Professional Title: Assistant Professor (Dr.), Associate professor dr.

Institution: Dicle University, Batman University

Article Title: Cultural Heritage Management in the Context of Sustainability, Value, and Authenticity: A Study on Zerzevan Castle and the Mithraeum Archaeological.

Proposed Article Category: Original Scientific Article (derived from doctoral dissertation)

**Cultural Heritage Management in the Context of Sustainability, Value, and
Authenticity: A Study on Zerzevan Castle and the Mithraeum Archaeological Site**

POVZETEK

Upravljanje kulturnih in arheoloških dediščinskih območij, ki so bila odprta za turizem, ter vzpostavitev trajnostnega modela upravljanja predstavljata pomemben izziv. Ta študija obravnava takšen model upravljanja v kontekstu arheološkega najdišča Zerzevan Castle in Mithraeum v Diyarbakirju skozi percepcije in stališča obiskovalcev ter lokalnih deležnikov, pri čemer uporablja koncepte trajnosti, vrednosti, avtentičnosti in vedenjske vključenosti. V raziskavi je bila uporabljena kombinirana metodologija; kvantitativni podatki, pridobljeni od obiskovalcev, so bili analizirani z uporabo SPSS in PLS-SEM, medtem ko so bili kvalitativni podatki, zbrani od lokalnih deležnikov, analizirani z uporabo MAXQDA. Kvantitativne ugotovitve so pokazale, da percepcije trajnosti pomembno vplivajo na percepcije vrednosti; percepcije vrednosti pomembno vplivajo na percepcije avtentičnosti; avtentičnost pa pomembno vpliva na vedenjske rezultate, vključno z ohranjanjem, finančnim prispevkom in politično udeležbo. Poleg tega je bilo ugotovljeno, da percepcije trajnosti posredno vplivajo na vedenjske rezultate prek percepcij vrednosti in avtentičnosti. Kvalitativne ugotovitve so pokazale, da so lokalni deležniki predvsem poudarili teme ohranjanja, občutka pripadnosti in gospodarske koristi. Študija poudarja pomen pristopa k upravljanju kulturne dediščine, ki temelji na avtentičnosti in trajnosti, ter prispeva k literaturi z oblikovanjem modela upravljanja za dediščinska območja.

Ključne besede: trajnost; zaznana vrednost; avtentičnost; upravljanje kulturne dediščine; turizem; grad Zerzevan in Mithraeum; Turčija

Cultural Heritage Management in the Context of Sustainability, Value, and Authenticity: A Study on Zerzevan Castle and the Mithraeum Archaeological Site

ABSTRACT

The management of cultural and archaeological heritage sites that have been opened to tourism and the establishment of a sustainable management model constitute a significant challenge. This study discusses such a management model in the context of the Zerzevan Castle and Mithraeum archaeological site in Diyarbakır through the perceptions and attitudes of visitors and local stakeholders, employing the concepts of sustainability, value, authenticity, and behavioral engagement. A mixed-methods approach was adopted in the research; quantitative data obtained from visitors were analyzed using SPSS and PLS-SEM, while qualitative data collected from local stakeholders were analyzed using MAXQDA. The quantitative findings revealed that perceptions of sustainability significantly influence perceptions of value; perceptions of value significantly affect perceptions of authenticity; and authenticity, in turn, significantly influences behavioral outcomes, including conservation, financial contribution, and political participation. Furthermore, perceptions of sustainability were found to indirectly affect behavioral outcomes through perceptions of value and authenticity. The qualitative findings demonstrated that local stakeholders primarily emphasized the themes of conservation, sense of belonging, and economic benefit. The study highlights the importance of an authenticity-centered sustainability approach in cultural heritage management and contributes to the literature by proposing a management model for cultural heritage sites.

Keywords: Sustainability; Perceived Value; Authenticity; Cultural Heritage Management; Tourism; Zerzevan Castle and Mithraeum; Turkey

Introduction

Tourism plays a decisive role in the development of societies not only through its economic and social impacts but also through its cultural dimensions. Cultural heritage destinations represent the sphere in which this influence is most prominently observed. While cultural heritage ensures the preservation of values transmitted from the past to the present, it also strengthens social identity and the sense of belonging. Through the authentic experiences it offers to visitors, it enhances cultural awareness and reinforces heritage consciousness.

Accordingly, the relationship between cultural heritage and tourism has emerged as one of the central topics in discussions on sustainable development policies.

Archaeological sites possess strategic importance not only from a scientific perspective but also in terms of their social and economic dimensions. The literature emphasizes the decisive role of cultural values and social factors in heritage management (Koren-Lawrence et al., 2020), while highlighting that sustainable heritage management should address environmental, economic, cultural, and social dimensions in an integrated manner (Brantom, 2016). Similarly, the relationship between sustainable tourism and social values is regarded as one of the fundamental pillars of heritage conservation and local development (Ross & Saxena, 2017; Dans & González, 2019).

In cultural heritage tourism studies, perceived value stands out as a critical element for sustainable management (Timothy & Boyd, 2003). Nevertheless, the conservation–use balance (McKercher & du Cros, 2002), the tension between economic benefits and heritage conservation (Ashworth & Tunbridge, 1990), and the socio-cultural dimensions of sustainable tourism (Richards, 1996) have long been discussed. However, most existing studies address these variables in a fragmented manner and do not examine the relationships among sustainability, perceived value, authenticity, and behavioral engagement within a

holistic model framework. This situation creates a significant theoretical gap, particularly in the archaeotourism literature.

Authenticity and perceived value are prominent concepts in explaining visitor behavior.

While Wang (1999) classified the concept of authenticity into objective, constructivist, and existential dimensions, MacCannell (1973) discussed the relationship between reality and representation in tourist experiences through the concept of “staged authenticity.”

Contemporary studies have demonstrated that authenticity and perceived value are directly related to environmentally responsible behaviors (Liu, Zhang & Huang, 2023). In this context, Ajzen’s (1991) Theory of Planned Behavior and Bandura’s (1986) Social Cognitive Theory provide strong theoretical frameworks for explaining the transformation of individuals’ perceptions into behavioral intentions and participation. However, it appears that these theories have not been sufficiently tested as an integrated model within the context of archaeotourism.

This study addresses the aforementioned theoretical gap through the case of Zerzevan Castle and Mithraeum, located in Diyarbakır. This archaeological site, notable for its Roman-period military garrison structure, defense systems, and ritual spaces associated with the cult of Mithras, possesses significant historical and cultural heritage potential (Karadoğan & Coşkun, 2017; 2018; Coşkun & Oğuz Kırca, 2022; 2023a). These characteristics make the site not only an archaeological heritage asset but also an important destination in terms of cultural identity, religious history, and sustainable tourism policies.

1. Relationship Between Sustainability and Tourism

Sustainable tourism is defined as an approach that aims to provide economic benefits while preserving environmental resources, cultural heritage, and local communities (Honey, 2008).

The resources upon which tourism depends are largely environmental in nature; therefore, the

conservation of the natural environment is regarded as a fundamental component of sustainable tourism. Ensuring sustainable development in tourism activities requires the preservation of ecological balance and the effective management of the process. Neglecting infrastructure components places pressure on the carrying capacity of destinations and causes damage to social welfare, cultural heritage, and natural resources (Kaypak, 2010; Can, 2017; Doğan, 2013). For this reason, it is important to conduct infrastructure analyses and determine carrying capacity before an area is marketed as a tourism product. UNEP and UNWTO (2005) state that tourism has a unique impact on sustainable development in three ways:

- Interaction: It enables direct interaction among the local environment, host communities, and visitors.
- Awareness: Cultural interaction between tourists and local residents enhances environmental awareness.
- Dependence: The tourism sector depends on natural areas, authentic destinations, and preserved cultural products.

Among the positive aspects of sustainable tourism are employment generation, income provision for local communities, and contributions to the preservation of cultural values; whereas its negative aspects include pressure on ecosystems, cultural degradation, and resource conflicts (UNEP & UNWTO, 2005). In this context, the fundamental principles of sustainable tourism are the optimal use of environmental resources, the preservation of socio-cultural authenticity, and the support of long-term economic operations. The success of sustainability in tourism depends not only on the implementation of policies but also on the participation of local communities and stakeholders in the process (Yüksek et al., 2019; Can, 2016).

2. The Concept of Cultural Heritage

Culture is defined as a human-created phenomenon that is learned, transmitted, and changes over time in the daily lives of individuals and societies (Kurniawan et al., 2011). UNESCO, on the other hand, considers culture to be the fundamental element that guides all activities of human life (UNESCO, 2009), indicating that culture occupies a central place in both individual and social life.

Cultural heritage is regarded as the entirety of values transmitted from the past to the present and maintained as living values. Historical elements, together with traditions and customs, constitute the tangible and intangible heritage of today (Diker, 2016). Graham, Ashworth, and Tunbridge (2000) define cultural heritage as the entirety of values that carry the influences of the past into the future and play a critical role in the formation of identity and the maintenance of cultural continuity.

Cultural heritage encompasses not only material assets but also the collective memory of societies and traditional practices transmitted to future generations (Cleere, 1989; Harvey, 2001). In this context, the preservation of heritage plays a decisive role in the reproduction of cultural identity and the maintenance of its continuity. UNESCO classifies cultural heritage into two categories: tangible heritage (archaeological sites, historic structures, and artifacts) and intangible heritage (traditions, festivals, performing arts, and oral expressions) (UNESCO, 1957; Hassan, 2014). These two categories often overlap and demonstrate the need for the holistic preservation of heritage. For an element to be considered heritage, it must possess historical, aesthetic, artistic, anthropological, and symbolic value, embody universal significance, and preserve its authenticity (UNESCO, 1957; 2003).

2.1 Tangible Cultural Heritage and Archaeology

One of the most important components of tangible cultural heritage is archaeological heritage. Archaeological sites are critical places that must be preserved and sustained because

they contain documents related to culture and historical artifacts. ICOMOS (1990) defines archaeology as a discipline encompassing all traces of human existence and the places in which they occur, and regards terrestrial, subterranean, and underwater sites as fundamental components of cultural heritage.

Renfrew and Bahn (2016) describe archaeological sites as geographical areas containing prehistoric remains and cultural elements belonging to past civilizations that are investigated, documented, and interpreted by archaeologists through excavations. This approach demonstrates that archaeological heritage contributes not only to the understanding of the past but also to the interpretation of the present and the future.

2.2.Value Perception, Authenticity, and Behavioral Participation

In the cultural heritage tourism literature, value perception is regarded as a critical element for sustainable management (Timothy & Boyd, 2003, p. 45). This perception directly influences visitors' attitudes toward cultural heritage and their participation behaviors. The concept of authenticity plays a central role in explaining visitor experiences in tourism research. Wang (1999, p. 210) addresses authenticity in three dimensions: objective, constructivist, and existential. MacCannell (1973, p. 92), on the other hand, discusses the phenomenon of "staged authenticity" in tourist experiences, emphasizing the boundaries between reality and fiction in visitors' experiences. Contemporary studies demonstrate that authenticity and value perception are directly related to environmentally responsible behaviors (Liu, Zhang & Huang, 2023, p. 118).

Among the theoretical frameworks used to explain behavioral participation, Ajzen's Theory of Planned Behavior (1991, p. 179) and Bandura's Social Cognitive Theory (1986, p. 25) are prominent. These theories provide a strong foundation for explaining the transformation of individuals' perceptions into behavioral intentions and participation. However, these theories have not been tested at the level of a holistic model within the context of archaeotourism.

Therefore, this study aims to fill this gap in the literature by testing the sustainability → value → authenticity → behavioral participation chain through both quantitative and qualitative methods.

3. Zerzevan Castle and Mithraeum Archaeological Site, Diyarbakır

Zerzevan Castle is a strategic structure located in the Çınar district of Diyarbakır and was used as a military garrison during the Roman Empire period. The castle reveals the historical significance of the region through both its military and religious functions (Coşkun 2015a; Coşkun 2015b; Coşkun 2016a; Coşkun 2016b; Coşkun 2016c; Coşkun 2017a; Coşkun 2017b; Coşkun 2019; Coşkun 2023a; Coşkun vd. 2024; Coşkun vd. 2025a; Coşkun vd. 2025b; Dursun ve Coşkun 2020; Karadoğan 2023; Ayus 2021).

In particular, the Mithras Temple located within the site is considered one of the most important examples of the mysterious cult of Mithras in Anatolia during the Roman period (Karadoğan & Coşkun 2017; Karadoğan & Coşkun 2018; Coşkun 2022; Coşkun ve Oğuz Kırca 2022; Coşkun ve Oğuz Kırca 2023; Coşkun ve Ayus 2023).

Archaeological excavations have revealed the presence of numerous structures within the castle, including fortification walls, towers, a church, residential buildings, water cisterns, and underground shelters. These findings demonstrate that Zerzevan was not only a military base but also a center of social and religious life (Coşkun & Oğuz Kırca 2022; Coşkun & Oğuz Kırca 2023a; Dursun ve Coşkun 2020; Coşkun 2019; Coşkun 2023b).

The Mithras Temple is particularly noteworthy. This sacred space, carved into the underground, hosted the mysterious rituals of the Mithras faith. The temple is of great scientific importance as one of the best-preserved Mithras structures discovered in Anatolia to date (Coşkun 2022; Karadoğan & Coşkun 2017; Karadoğan & Coşkun 2018; Coşkun ve Oğuz Kırca 2022; Coşkun ve Oğuz Kırca 2023). This situation has made Zerzevan Castle a valuable destination for archaeotourism not only at the local level but also at the international

level (Coşkun ve Ayus 2024; Coşkun 2019). Zerzevan Castle and the Mithraeum provide a strong field of research in terms of both the preservation of archaeological heritage and the development of sustainable tourism policies (Coşkun ve Ayus 2024).

4. Method

This study was designed on the basis of the pragmatist research philosophy in order to understand the multilayered structure of archaeological heritage sites. Pragmatism advocates the selection of the method that best explains the research problem and, when necessary, the combined use of multiple methods (Tashakkori & Teddlie, 2010). This approach enabled the holistic examination of both visitor perceptions and the evaluations of managerial actors in the case of Zerzevan Castle. The validity and reliability of the data obtained in the study were supported through triangulation strategies in accordance with the nature of the mixed-methods approach. Data triangulation (Denzin, 1978), methodological triangulation (Creswell & Plano Clark, 2018), and investigator triangulation (Miles & Huberman, 1994) were used together; additionally, the qualitative findings were ensured through the principles of credibility and transferability proposed by Lincoln and Guba (1985). The “Zerzevan Castle Cultural Heritage Perception and Sustainable Participation Scale” developed in this study was designed to measure intentions, behaviors, and perceptions regarding the conservation of cultural heritage. The sub-dimensions of the scale were based on theoretical approaches in the literature:

- Theory of Planned Behavior (Ajzen, 1991): Explains intentions of political and financial participation.
- Social Cognitive Theory (Bandura, 1986): Supports conservation and use behaviors.
- Sustainability Approach (WCED, 1987; UNESCO, 2015): Explains the perception of sustainable development.

- Authenticity Theory (MacCannell, 1973; Wang, 1999): Provides the basis for the perception of authenticity in visitor experiences.
- Value Theory (Stern, 2000; UNESCO, 2015): Explains the perception of the universal and social value of cultural heritage.

This approach enhanced the reliability of the findings at both the statistical and contextual levels. In this context, the hypotheses developed in accordance with the purpose of the study are presented as follows:

H1: Perception of sustainable development positively affects value perception.

H2: Value perception positively affects authenticity perception.

H3: Authenticity perception positively affects heritage conservation–use behaviors.

H4: Authenticity perception positively affects sustainable financial contribution behaviors.

H5: Authenticity perception positively affects intentions for sustainable legal and political participation.

H6–H12: The indirect effects of perception of sustainable development and value perception on behavioral outcomes through authenticity are tested.

4.1. Research Problem

The preservation and integration of archaeological heritage sites into tourism constitute one of the critical components of sustainable development policies. However, current practices are often limited to technically oriented conservation measures and fragmented solutions, which contradict UNESCO's (2013) emphasis on a “holistic, participatory, and multi-stakeholder management” approach. This situation hinders the establishment of a comprehensive relationship between visitor experience, local stakeholder involvement, and managerial practices.

In the literature, the relationship between perceptions of sustainability, value, and authenticity with behavioral outcomes has been examined in a fragmented manner (Choi & Sirakaya,

2005; Kolar & Zabkar, 2010; Ramkissoon & Uysal, 2011). However, there is no comprehensive framework that integrates these variables within a single structural model. This deficiency creates a significant theoretical gap in explaining how visitor perceptions are transformed into behavioral outcomes. In this context, the study seeks to answer the following questions:

- How is Zerzevan Castle perceived by visitors?
- To what extent is the sustainability of Zerzevan Castle important?
- What are visitors' views on sustainable tourism and the destination?
- How do local authorities and tourism stakeholders perceive it?
- What are the existing and planned practices?
- What measures should be taken for a more sustainable destination?
- How can a sustainable management model be developed for Zerzevan Castle?

4.2. Purpose and Significance of the Study

The main purpose of this study is to reveal the components of sustainable tourism and a sustainable management model in archaeological heritage sites. The model developed through the case of Zerzevan Castle and the Mithraeum provides an original contribution at both theoretical and practical levels by evaluating visitor perceptions together with managerial practices. This approach demonstrates that sustainable tourism cannot be achieved solely through physical conservation measures; rather, it depends on a holistic participation process that emerges from the interaction of perceptions at different levels and managerial approaches. The study goes beyond the fragmented approaches in the literature by developing a new explanatory framework at the academic level and, in practice, offering a sustainability-oriented roadmap for heritage site managers, local authorities, and the tourism sector.

4.3. Population and Sample

The population of the research consists of domestic tourists visiting the Zerzevan Castle and Mithraeum Archaeological Site. It is estimated that the site had an annual average of 400,000 visitors in 2024–2025 (Diyarbakır Provincial Directorate of Culture and Tourism, 2025).

Since it is not possible to reach the entire population, a sampling technique representing the population was adopted, and the minimum sample size was considered to be 380 or more through the simple random sampling method (Neuman, 2010). The population of local authorities and tourism stakeholders in the research consists of the excavation management of the archaeological site, representatives of provincial and district local administrations, and representatives of tourism enterprises.

Quantitative data were collected through a questionnaire measuring visitors' perceptions and attitudes. The form included demographic information (age, gender, education, occupation, purpose of visit) and cultural heritage perception scales. The “Zerzevan Castle Cultural Heritage Perception and Sustainable Participation Scale” developed in this research aims to measure visitors' sustainable behaviors, perceptions of sustainable development, evaluations regarding heritage value, and perceptions of authenticity. The scale development process was conducted through a systematic procedure including literature review, item pool generation, translation–back translation, expert opinions, and pilot testing (Creswell, 2013; Patton, 2015; Kvale, 2007).

As a result of the literature review, the scale items were adapted from studies on sustainable behavior (Alazaizeh et al., 2019a; Buonincontri et al., 2017; Cheng et al., 2021), sustainable development (Anghel et al., 2022a; Carbone et al., 2013; Asmelash & Kumar, 2019), heritage value (Koren-Lawrence et al., 2020; Blasco López et al., 2018; Dans & González, 2019), and authenticity (Kolar & Zabkar, 2010; Domínguez-Quintero et al., 2020; Park, Choi & Lee,

2019). As a result of the pilot study conducted through face-to-face interviews with 40 participants, the scale reached its final six-dimensional form:

- Intentions for Sustainable Legal and Political Participation
- Sustainable Financial Contribution Behaviors
- Heritage Conservation and Use Behaviors
- Perception of Sustainable Development
- Perception of Zerzevan Castle Value
- Perception of Zerzevan Castle Authenticity

5. Findings

In the research, quantitative data obtained from visitors through the survey technique and qualitative data collected from stakeholders using the in-depth interview technique were analyzed separately, and the findings were detailed sequentially. For the visitor field study, 455 questionnaires were collected, of which 15 were excluded due to incomplete coding and 30 due to being outside the normal distribution, using the listwise deletion method. Thus, the final number of questionnaires subjected to analysis was 405. The local stakeholders in Diyarbakır consisted of an eight-member qualitative interview group including archaeological site excavation managers, provincial tourism managers, local administrators, and representatives of tourism enterprises, and the data were analyzed accordingly.

5.1. Quantitative Findings

The reliability and validity of the scale developed for the survey used in the research were tested through a two-stage analysis process. In the first stage, Cronbach's Alpha coefficients, item-total correlations, and exploratory factor analysis (EFA) were conducted using SPSS 26.0; the KMO and Bartlett tests are reported in Section 5.1. The final scale consisted of a total of 30 items with a five-point Likert-type rating. Reliability and validity analyses were found to be at a high level (Cronbach's Alpha = 0.952; KMO = 0.946; Bartlett's test $\chi^2 =$

9011.78; $p < .001$). These results indicate that the scale is robust both linguistically and structurally.

In the second stage, the PLS-SEM approach was adopted using SmartPLS 4 software; in the measurement model, factor loadings, composite reliability (CR), average variance extracted (AVE), and discriminant validity (HTMT) values were examined. In the structural model, path coefficients, R^2 , f^2 , and Q^2 values were evaluated, and the predictive power and goodness-of-fit of the model were demonstrated. This process holistically shows the validity and reliability of the scale both through classical statistical methods and structural equation modeling.

Cronbach's Alpha coefficients, item-total correlations, and exploratory factor analysis (EFA) results are reported below.

In the table, the KMO measure of sampling adequacy was determined as 0.946, and Bartlett's test of sphericity yielded a significant result ($\chi^2 = 9011.787$; $df = 435$; $p < .001$). These findings indicate that the dataset is highly suitable for factor analysis.

Table 5.1. KMO and Bartlett's Test Statistics for the Sustainable Behavior Scale

Measure	Value
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	0.946
Bartlett's Test of Sphericity Approx. Chi-Square	9011.787
Degrees of Freedom (df)	435
Significance Level (p)	0.000

These findings indicate that the data are suitable for factor analysis. Kaiser (1960) and Field (2013) emphasize that these tests are a prerequisite for factor analysis. As a result of the EFA, the scale was grouped under six dimensions, and the total variance was found to be 71.3% in Table 5.1.1

Table 5.1.1. Total Variance Explained and Eigenvalues (Factors 1–6)

Total Variance Explained

Factor	Initial Eigenvalue			Variance Explained by Extracted Components		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,225	44,084	44,084	13,225	44,084	44,084
2	3,117	10,389	54,473	3,117	10,389	54,473
3	1,778	5,925	60,398	1,778	5,925	60,398
4	1,249	4,163	64,561	1,249	4,163	64,561
5	1,109	3,698	68,259	1,109	3,698	68,259
6	,902	3,006	71,265	,902	3,006	71,265

This result supports the structural validity of the scale. Tabachnick & Fidell (2019) state that a variance above 60% indicates a strong factor structure.

Table 5.1.1.1. Zerzevan Castle Cultural Heritage Perception and Sustainable Perception–Attitude Scale (EFA)

Factors	Variables	Factor Loadings	Eigenvalue	Total Variance Explained %
Sustainable Legal and Political Participation Intentions (SLPIN)	SLPIN1 – I support organizations related to cultural heritage conservation.	-0.849	13.225	44.084
	SLPIN2 – I would be willing to petition authorities for greater cultural heritage conservation in the future.	-0.583		
	SLPIN3 – I vote for candidates who support cultural heritage conservation.	-0.667		
Sustainable Financial Contribution Behaviors (SFCB)	SFCB1 – I usually donate to organizations related to cultural heritage conservation.	0.830	3.117	54.473
	SFCB2 – I follow publications related to cultural heritage.	0.570		
	SFCB3 – I prefer to buy products from companies that support cultural heritage conservation.	0.576		
	SFCB4 – I try to persuade others to donate for cultural heritage conservation.	0.672		
Heritage Conservation and Utilization Behaviors (HCUB)	HCUB1 – I report those who violate laws protecting cultural heritage to the authorities.	-0.755	1.778	60.398
	HCUB2 – I help maintain environmental quality at archaeological sites.	-0.755		
	HCUB3 – I report environmental pollution at archaeological sites to the authorities.	-0.833		
	HCUB4 – I report destruction at archaeological sites to the authorities.	-0.817		
	PSD1 – Protecting archaeological resources is important.	0.911		
	PSD2 – The existence of archaeological remains is an advantage for a city.	0.945		

Factors	Variables	Factor Loadings	Eigenvalue	Total Variance Explained %
Perception of Sustainable Development (PSD)	PSD3 – Construction should stop when archaeological remains are found.	0.702	1.249	64.561
	PSD4 – Archaeological sites increase investment in the region.	0.616		
	PSD5 – Archaeological sites are attractive tourist centers.	0.798		
	PSD6 – Utilizing archaeological sites through tourism contributes to the local economy.	0.790		
	PSD7 – Raising awareness among local people is necessary for protecting archaeological sites.	0.865		
	PSD8 – Tourism at archaeological sites should comply with sustainability principles.	0.743		
Perception of Value of Zerzevan Castle (PVCZ)	PVCZ1 – Zerzevan Castle archaeological heritage site has universal value.	-0.596	1.109	68.259
	PVCZ2 – Zerzevan Castle archaeological site provides economic benefits to local people.	-0.818		
	PVCZ3 – Opening Zerzevan Castle archaeological heritage site to tourism is beneficial.	-0.573		
	PVCZ4 – Zerzevan Castle archaeological site increases social welfare of local people.	-0.818		
	PVCZ5 – Zerzevan Castle archaeological heritage site is influential in terms of social identity.	-0.646		
	PVCZ6 – Zerzevan Castle archaeological site has artistic and aesthetic value.	-0.627		
Perception of Authenticity of Zerzevan Castle (PAZC)	PAZC1 – I was impressed by the restoration of historical structures in Zerzevan Castle according to their original form.	-0.539	0.902	71.265
	PAZC2 – I found the information provided about Zerzevan Castle sufficient.	-0.790		
	PAZC3 – I felt historical events and legends related to Zerzevan Castle during my visit.	-0.851		
	PAZC4 – During my visit to Zerzevan Castle, I felt connected to past civilizations.	-0.822		
	PAZC5 – My visit to Zerzevan Castle improved my perspective on different periods of the city.	-0.710		

As a result of the reliability analyses, the Cronbach's Alpha coefficient of the scale was calculated as 0.952, while the values for the sub-dimensions were found to range between 0.729 and 0.939. These values are above the acceptable thresholds recommended by Nunnally (1978) and DeVellis (2012), indicating that the scale is highly reliable.

5.1.2. Structural Equation Modeling (PLS-SEM)

The measurement and structural model were tested using the PLS-SEM approach with SmartPLS 4 software. The results of the measurement model showed that all factor loadings were above 0.70, Cronbach's Alpha values ranged between 0.730 and 0.941, and AVE values were found to be in the range of 0.649–0.734, as reported in Table 5.1.2.

Table 5.1.2. Reliability and Validity Findings of the PLS-SEM Measurement Model

Latent Variable	Indicators	Factor Loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	T-Statistics	Variance Inflation Factor (VIF)
Sustainable Financial Contribution Behaviors (SFCB)	SFCB1	0.844	0.845	0.849	0.896	0.683	38.748	2.200
	SFCB2	0.797					38.148	1.771
	SFCB3	0.843					41.173	1.904
	SFCB4	0.820					38.850	1.941
Heritage Conservation and Utilization Behaviors (HCUB)	HCUB1	0.815	0.879	0.890	0.917	0.734	41.412	1.927
	HCUB2	0.817					45.872	1.962
	HCUB3	0.901					41.993	3.093
	HCUB4	0.891					42.812	2.950
Perception of Sustainable Development (PSD)	PSD1	0.871	0.941	0.943	0.951	0.709	32.697	4.385
	PSD2	0.881					33.551	4.630
	PSD3	0.772					25.279	2.058
	PSD4	0.765					24.030	1.941
	PSD5	0.831					25.206	2.620
	PSD6	0.878					34.506	3.607
	PSD7	0.869					34.606	3.244
	PSD8	0.861					25.856	3.014
Sustainable Legal and Political Participation Intentions (SLPIN)	SLPIN1	0.838	0.730	0.739	0.847	0.649	27.826	1.430
	SLPIN2	0.799					23.700	1.482
	SLPIN3	0.778					28.982	1.413
Perception of Value of Zerzevan Castle (PVCZ)	PVCZ1	0.851	0.911	0.916	0.931	0.694	34.949	2.753
	PVCZ2	0.803					37.962	2.316
	PVCZ3	0.846					35.142	2.471
	PVCZ4	0.753					31.944	1.986
	PVCZ5	0.878					35.983	3.468
	PVCZ6	0.860					37.699	3.038
Perception of Authenticity of Zerzevan Castle (PAZC)	PAZC1	0.761	0.892	0.906	0.921	0.700	31.425	1.685
	PAZC2	0.745					34.515	1.889
	PAZC3	0.889					44.330	3.207
	PAZC4	0.885					46.142	3.423

Latent Variable	Indicators	Factor Loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	T-Statistics	Variance Inflation Factor (VIF)
	PAZC5	0.891					38.445	3.468

In Table 5.1.2.1, the values are consistent with the thresholds recommended in the literature. Fornell & Larcker (1981) specify the accepted limits for AVE, while Henseler et al. (2015) indicate the thresholds for HTMT. Discriminant validity was confirmed through the Fornell–Larcker criterion and HTMT ratios. In addition, SRMR = 0.057 and NFI = 0.846 values demonstrated acceptable model fit.

Table 5.1.2.1. Discriminant Validity and Model Fit Summary Values

Discriminant Validity (Fornell-Larcker Criterion)							Heterotrait-Monotrait (HTMT) Ratios				
	HCUB	SFCB	PSD	SLPIN	PVCZ	PAZC	HCUB	SFCB	PSD	SLPIN	PVCZ
HCUB	0.857										
SFCB	0.628	0.826					0.725				
PSD	0.477	0.355	0.842				0.525	0.392			
SLPIN	0.487	0.550	0.524	0.805			0.596	0.687	0.725		
PVCZ	0.552	0.460	0.725	0.519	0.833		0.613	0.520	0.687	0.632	
PAZC	0.549	0.577	0.502	0.448	0.661	0.837	0.607	0.657	0.392	0.543	0.723
RMSttheta : 0.141; SRMR0.057; Chi-Square: 1427.816; GoF: 0.534; NFI: 0.846											

These fit indices are consistent with the thresholds recommended by Hair et al. (2022). When examining the direct effects of the tested hypotheses, $PSD \rightarrow PVCZ$ ($\beta = 0.725$; $t = 18.181$) and $PVCZ \rightarrow PAZC$ ($\beta = 0.661$; $t = 19.843$) emerged as the strongest relationships. The effects of PAZC on HCUB, SFCB, and SLPIN were also found to be significant.

Table 5.1.2.2. Direct Effect Hypothesis Test Results

Hypothesis	Path	β	Mean	SD	t-value	p	Result
H1	$PSD \rightarrow PVCZ$	0.725	0.726	0.040	18.181	0.000	Accepted
H2	$PVCZ \rightarrow PAZC$	0.661	0.663	0.033	19.843	0.000	Accepted
H3	$PAZC \rightarrow HCUB$	0.549	0.552	0.037	14.986	0.000	Accepted

Hypothesis	Path	β	Mean	SD	t-value	p	Result
H4	PAZC $\rightarrow$ SFCB	0.577	0.579	0.041	13.981	0.000	Accepted
H5	PAZC $\rightarrow$ SLPIN	0.448	0.454	0.052	8.650	0.000	Accepted

In the indirect effects (Table 5.1.2.3), the mediating role of Perception of Authenticity (PAZC) was confirmed, with the highest effect observed along the path PSD $\rightarrow$ PVCZ $\rightarrow$ PAZC ($\beta = 0.479$; $t = 13.522$).

Table 5.1.2.3. Indirect Effect Hypothesis Test Results

Hypothesis	Path	β	Mean	SD	t-value	p	Result
H6	PSD $\rightarrow$ PVCZ $\rightarrow$ PAZC $\rightarrow$ SFCB	0.276	0.279	0.030	9.116	0.000	Accepted
H7	PSD $\rightarrow$ PVCZ $\rightarrow$ PAZC $\rightarrow$ HCUB	0.263	0.266	0.030	8.655	0.000	Accepted
H8	PVCZ $\rightarrow$ PAZC $\rightarrow$ SLPIN	0.296	0.301	0.041	7.191	0.000	Accepted
H9	PSD $\rightarrow$ PVCZ $\rightarrow$ PAZC	0.479	0.482	0.035	13.522	0.000	Accepted
H10	PSD $\rightarrow$ PVCZ $\rightarrow$ PAZC $\rightarrow$ SLPIN	0.215	0.219	0.033	6.586	0.000	Accepted
H11	PVCZ $\rightarrow$ PAZC $\rightarrow$ HCUB	0.363	0.367	0.035	10.379	0.000	Accepted
H12	PVCZ $\rightarrow$ PAZC $\rightarrow$ SFCB	0.381	0.384	0.036	10.606	0.000	Accepted

These findings indicate that the theoretical chain extending from the perception of sustainable development (PSD) to the perception of value (PVCZ), from the perception of value to the perception of authenticity (PAZC), and from authenticity to behavioral outcomes (HCUB, SFCB, SLPIN) has been gradually validated through the hypotheses. Ajzen (1991), MacCannell (1973), and Wang (1999) have discussed different parts of this chain in the literature in a similar manner. The measurement and structural relationships of the model have been presented visually. The AVE values of PSD, PVCZ, and PAZC were found to be within acceptable levels, while the path coefficients confirmed the hypothesized relationships.

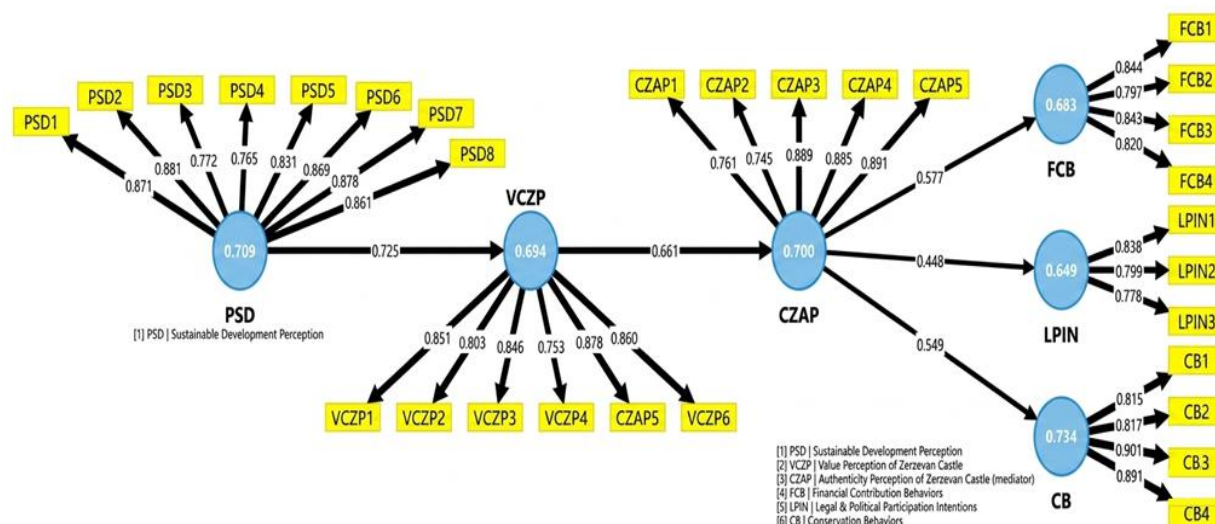


Figure 5.1.2.3. Research model of Zerzevan Castle and Mithraeum: Measurement and structural dimensions

This figure visually supports the theoretical chain of the model (PSD → PVCZ → PAZC → HCUB/SFCB/SLPIN). In the literature, Hair et al. (2017) and Sarstedt et al. (2014) emphasize that PLS-SEM figures enhance the comprehensibility of the model.

5.1.3. Additional Methodological Controls

Additional methodological controls supported the robustness of the model. Common method bias was found to be low, consistent with the criteria proposed by Podsakoff et al. (2003).

The R^2 values ranged between 20% and 53%, with PVCZ ($R^2 = 0.526$) standing out due to its high explanatory power. The blindfolding analysis yielded positive Q^2 values; for sustainable legal and political participation intentions (SLPIN) the predictive relevance was strong ($Q^2 = 0.41$), while for the other dimensions it was of moderate level. These findings are consistent with the predictive relevance criteria suggested by Geisser (1974) and Stone (1974).

When examining the effect sizes, the impact of PSD on PVCZ was found to be very strong ($f^2 = 1.108$), while the effect of PVCZ on PAZC was identified as large; this classification is based on the thresholds proposed by Cohen (1988). The model fit indices indicated acceptable levels, with SRMR = 0.057 and NFI = 0.846, consistent with the criteria suggested

by Henseler et al. (2015). Post-hoc power analyses yielded a result of power = 1.000 for all major paths, demonstrating that the sample size was sufficient for hypothesis testing (Faul et al., 2009).

5.2. Qualitative Findings

5.2.1. Theoretical Framework, Dimensions, and Analysis

The dataset was obtained through face-to-face, in-depth interviews using a semi-structured questionnaire (Ekiz, 2015; Guest, MacQueen & Namey, 2012). Participants were selected through purposive sampling, comprising a total of eight individuals representing the castle management (2), local government (4), and tourism stakeholders (2) (Patton, 2015). The interview form was structured around themes such as conservation policies, management planning, visitor services, the relationship between tourism and archaeology, economic and social benefits, sense of belonging, and cultural transmission. As data saturation was reached, the process was limited to eight participants.

The qualitative analysis process of the research was conducted through a hybrid coding approach. Themes derived from the literature (conservation, local participation, economic benefit, governance, visitor experience) were integrated with concepts obtained from field data (heritage value, authenticity, social value, environmental regulation, accessibility). This structure is grounded in policy–institutional, cultural, socio-economic, environmental, and governance-based approaches highlighted in the cultural heritage management literature. It functioned as a conceptual guide in the interpretation of interview data; conservation policies, management plan, visitor services, economic benefits, environmental sustainability, and stakeholder relations were systematically analyzed.

- Political and Institutional Dimension: Fowler (1987) and Saltman & Abuamoud (2020) emphasize that archaeology is shaped by state interests and institutional power.

These perspectives have provided a basis for understanding the management plan of Zerzevan Castle and the role of local administrations.

- Cultural Dimension: Carbone et al. (2012–2013), through the Paideia approach, argue that heritage should generate social benefit for society. This approach has been evaluated as a means of enhancing the social value of presentation and information services at Zerzevan Castle.
- Socio-Economic Dimension: Valencia et al. (2022) demonstrate that archaeological heritage gains economic and social value through tourism. This finding has been utilized in assessing relations with local communities and economic benefits.
- Environmental Dimension: UNESCO (2015) and the European Commission (2020) stress that heritage sites must serve environmental sustainability goals. In this context, environmental regulation and the management of overtourism impacts at Zerzevan Castle have been addressed.
- Governance Dimension: Koren-Lawrence et al. (2022) and Anghel et al. (2022b) highlight the importance of legal regulations and stakeholder participation in heritage management. These perspectives have provided a theoretical foundation for evaluating the management plan and conservation–maintenance practices at Zerzevan Castle.

Various strategies were applied to ensure validity and reliability. The interview form was developed based on the theoretical framework, and content validity was established through expert opinions (Creswell, 2014). Data were coded using MAXQDA software and classified according to the thematic framework (Kuckartz & Rädiker, 2019). The coding process was checked by an independent second coder, yielding Cohen's Kappa = 0.69 (Landis & Koch, 1977; McHugh, 2012). Participant statements were preserved through direct quotations, and part of the findings were shared with participants to ensure member checking (Lincoln &

Guba, 1985). The process was documented through the audit trail method, securing reproducibility (Robson, 1993). The analysis was conducted following Miles & Huberman's (1994) three-stage approach and was supported by negative case analysis and the principle of data saturation.

The codes and themes obtained in the qualitative analysis were systematically presented. Findings were supported with tables and figures, and direct quotations made the individual and shared aspects of the themes visible. Themes were associated with the theoretical framework, and confirmability was ensured in accordance with Lincoln and Guba's (1985) principles of trustworthiness. MAXQDA software visualized the distribution of codes, contributing to the systematic presentation of themes. Consequently, the findings were addressed at descriptive, interpretive, and theoretical levels; they were discussed in comparison with the literature, thereby revealing the original contributions of the research.

5.2.2. Zerzevan Castle and Mithraeum Current Sustainable Site Management

The findings of the qualitative data analysis indicate that sustainable site management at Zerzevan Castle and the Mithraeum has a multidimensional structure. A total of 102 codes derived from participant statements were classified under eight categories. The results reveal that sustainable management practices and environmental regulation constitute the strongest aspects; the site management plan, stakeholder participation, and the services provided were evaluated highly positively.

Participants emphasized that the site management plan presents a comprehensive vision and has been transformed into a legal strategy with the participation of all stakeholders: *"The Site Management Plan encompasses the vision for the future of the site, conservation, and planned development objectives. With its approval, a legal roadmap has been established with the participation of all stakeholders."* (P1)

It has also been stated that the management plan supports the balanced development of tourism in line with sustainability principles: *“Sustainable management plans are a positive step for the long-term conservation of the site and the balanced development of tourism.”*

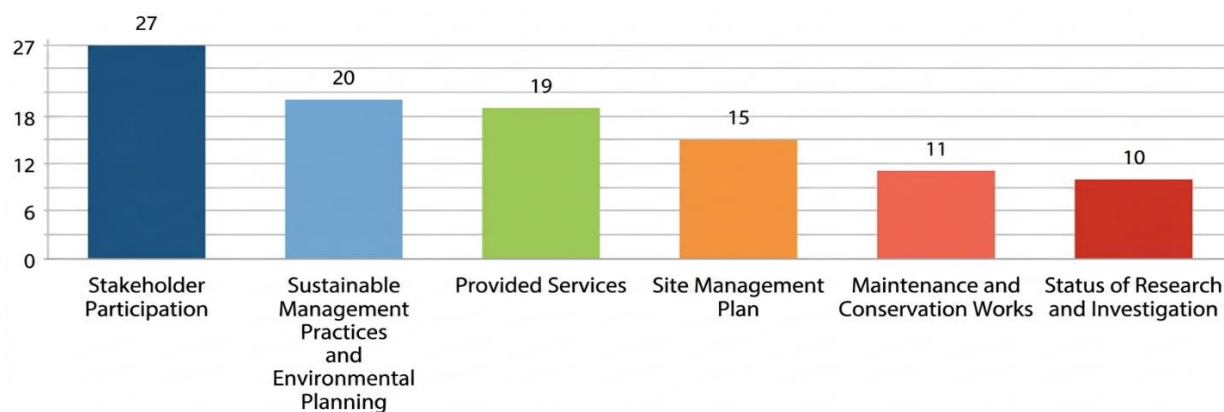
(P2)

Some views reveal that being included in the UNESCO Tentative List is a critical element for sustainable management: *“Being on the UNESCO Tentative List is important for sustainable management.”* (P4) Furthermore, the fact that conservation of the site is carried out by professional teams demonstrates the institutional strength of the management model: *“The conservation status of the site is generally ensured by a professional team.”* (P5)

According to the summary findings of Table 5.2.2, sustainable management practices were present in all documents (100%), while the site management plan, stakeholder participation, and the services provided were coded at a rate of 87.5%. In Figure 6.1, “Stakeholder Participation” (27 times) and “Sustainable Management Practices” (20 times) emerged as the most frequently emphasized categories.

Table 5.2.2. Document-Based Frequency of Sustainable Site Management of Zerzevan Castle and the Mithraeum

Codes	Documents	Percentage
1 – Sustainable Management Practices and Environmental Planning	8	100.00%
2 – Site Management Plan	7	87.50%
3 – Provided Services	7	87.50%
4 – Stakeholder Participation	7	87.50%
5 – Status of Research and Investigation	6	75.00%
6 – Maintenance and Conservation Works	4	50.00%
Coded Documents	8	100.00%
Uncoded Documents	0	0.00%
Analyzed Documents	8	100.00%



Graph 5.2.2. Code-based frequency of Zerzevan Castle and Mithraeum sustainable site management

These findings are consistent with Butler's (1999) tourism life cycle model and McCool & Lime's (2001) carrying capacity approach. Smith (2006) emphasizes the importance of the UNESCO process in terms of international recognition, while Aas, Ladkin & Fletcher (2005) note that professional teams enhance success in destination management. Timothy & Boyd (2003), through the heritage tourism approach, support the societal recognition dimension of the management plan; Cohen (1988a) demonstrates that authenticity and a sense of ownership strengthen conservation.

In conclusion, the current management of Zerzevan Castle and the Mithraeum exhibits a structure parallel to sustainability principles; this approach, supported by stakeholder participation, professional teamwork, and international recognition processes, constitutes a strong potential for the long-term conservation of the site and the balanced development of tourism.

5.2.3. Sustainable Tourism Recommendations

Participant views have provided various recommendations for the development of Zerzevan Castle and the Mithraeum within the context of sustainable tourism. Coding findings indicate that themes such as visitor management, information systems, and local participation were particularly prominent. Environmental regulation, accessibility for the disabled, technological

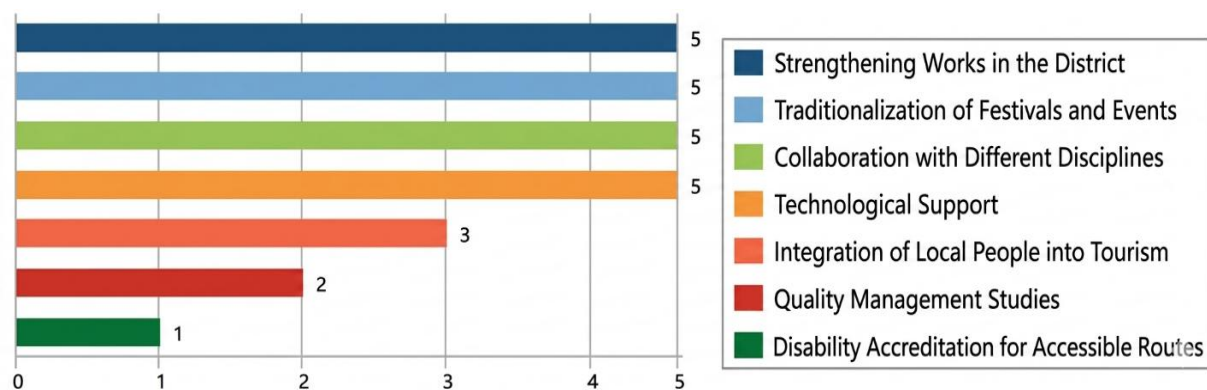
support, and interdisciplinary cooperation, expressed with lower frequency, were evaluated as complementary elements in terms of inclusiveness and modernization.

Participants emphasized the control of visitor density and planned development for the balanced management of tourism: *“Considering the increasing number of visitors, the implementation of more holistic policies for sustainable management will yield healthier outcomes.”* (P3)

Views emphasizing the importance of international recognition have revealed that “being included in the UNESCO Tentative List is critical for sustainable tourism” (P4). It has also been stated that information systems must be continuously updated to improve visitor experience (P6). As shown in Table and Figure 5.2.3, the most frequently repeated recommendations were visitor management, information systems, and local participation. Environmental regulation and accessibility for the disabled were expressed to a more limited extent, yet they provide critical contributions to sustainable tourism.

Table 5.2.3. Document-based frequency of sustainable tourism recommendations for Zerzevan Castle and Mithraeum

Codes	Documents	Percentage
Strengthening Works in the District	3	37.50%
Traditionalization of Festivals and Events	3	37.50%
Integration of Local People into Tourism	2	25.00%
Quality Management Studies	2	25.00%
Technological Support	2	25.00%
Disability Accreditation for Accessible Routes	1	12.50%
Collaboration with Different Disciplines	1	12.50%
Coded Documents	7	87.50%
Uncoded Documents	1	12.50%
Analyzed Documents	8	100.00%



Graph 5.2.3. Code-based frequency of Zerzevan Castle and Mithraeum sustainable tourism recommendations

These findings are consistent with Butler's (1999) tourism life cycle model and McCool & Lime's (2001) carrying capacity approach. Leask (2010) emphasizes that information systems support the learning process, Garrod & Fyall (2000) highlight that restrictions in sensitive areas ensure the balance between conservation and tourism, and Darcy (2010) stresses that accessibility for the disabled is critical for sustainable tourism.

In conclusion, it emerges that for Zerzevan Castle and the Mithraeum to develop a strong model in terms of sustainable tourism, visitor management, information systems, environmental regulation, and local participation must be addressed in a holistic manner.

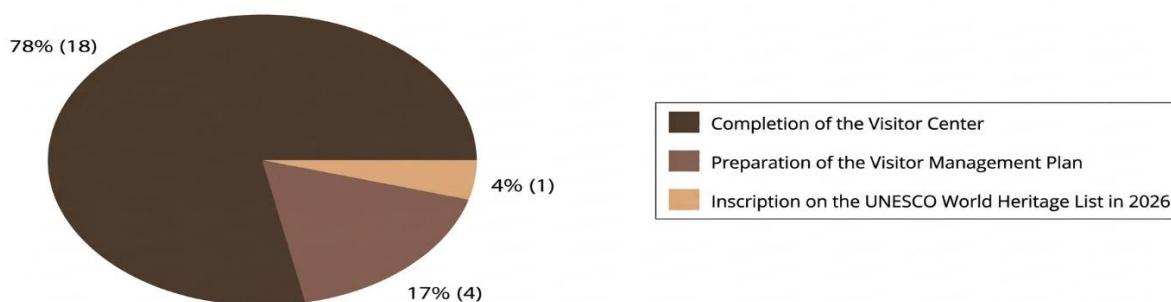
5.2.4. Future Management Plans for Zerzevan Castle and the Mithraeum

The sustainable tourism vision of Zerzevan Castle and the Mithraeum extends beyond current recommendations and is supported by future-oriented management plans. Participant views reveal that local development and cultural continuity are priority areas, while future plans complement these findings with concrete investments and strategic objectives.

In this context, three main themes stand out: the completion of the Visitor Center, the establishment of a Visitor Management Plan, and inclusion in the UNESCO World Heritage List in 2026. As shown in Table and Figure 5.2.4, the completion of the Visitor Center emerges as the highest priority, the Visitor Management Plan is emphasized at a moderate level, and the UNESCO target is expressed with lower frequency.

Table 5.2.4. Zerzevan Castle and Mithraeum future management plans document-based frequency

Codes	Documents	Percentage
Completion of the Visitor Center	5	62.50%
Preparation of the Visitor Management Plan	3	37.50%
Inscription on the UNESCO World Heritage List in 2026	1	12.50%
Coded Documents	5	62.50%
Uncoded Documents	3	37.50%
Analyzed Documents	8	100.00%

**Graph 5.2.4. Code-based frequency of Zerzevan Castle and Mithraeum future management plans**

Although the UNESCO target has been expressed with lower frequency, it has strategic importance. Participants stated that this process is critical for increasing the international recognition of Zerzevan Castle and ensuring conservation standards: *“Zerzevan Castle and the Mithras Sanctuary were included in the UNESCO World Heritage Tentative List in 2020. The application dossier for the main list has been completed and submitted, and it is planned to become a World Heritage Site in 2026.”* (P1)

The completion of the Visitor Center was evaluated by the majority of participants as a priority investment. This center will provide critical infrastructure for guiding, informing, and meeting the needs of visitors. Participants emphasized its role in enriching visitor experience with the following statement: *“The Visitor Center, planned to be completed in the near future, will include rest areas and an increase in informative materials.”* (P2)

The Visitor Management Plan is regarded as a comprehensive strategy to reduce the pressure of the increasing number of visitors on the site. *“Due to the intensive visitation to the site, the preparation of a ‘Visitor Management Plan’ is planned.”* (P1) expresses this need concretely, while *“Sustainable management and practices are of great importance... the integration of technological monitoring and capacity management systems is planned.”* (P2) reveals the inclusive and technological dimensions of the plan.

In conclusion, the future management plans of Zerzevan Castle and the Mithraeum aim to strengthen experiential infrastructure through the completion of the Visitor Center, to reduce the pressure on the site through the Visitor Management Plan, and to enhance international recognition through the UNESCO World Heritage target. These three themes demonstrate that the sustainable tourism vision is supported by concrete investments and strategic objectives.

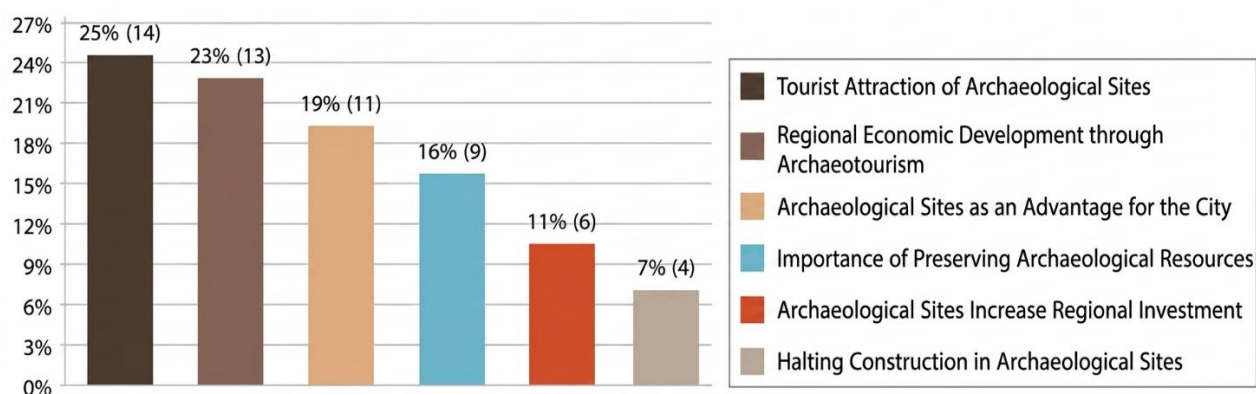
5.2.5. Valorization of Zerzevan Castle and the Mithraeum Archaeological Site through Tourism

Zerzevan Castle and the Mithraeum Archaeological Site stand out in Diyarbakır’s tourism vision as an element supporting the preservation of cultural heritage and economic development. Participant views revealed multidimensional themes such as strengthening the city’s identity through archaeological sites, increasing touristic attractiveness, providing economic contribution through archaeotourism, accelerating investments, preserving resources, and controlling constructions.

As shown in Table and Figure 5.2.5, the most emphasized themes were the advantages provided by archaeological sites for the city (87.5%) and their touristic attractiveness (75%). The economic contribution of archaeotourism to the region (75%) and the preservation of resources (62.5%) also stood out, while the increase in investments and the halting of constructions were expressed at lower rates.

Table 5.2.5. Document-based frequency of valorization through tourism of Zerzevan Castle and Mithraeum Archaeological Site

Codes	Documents	Percentage
1 – Archaeological Sites as an Advantage for the City	7	87.50%
2 – Tourist Attraction of Archaeological Sites	6	75.00%
3 – Regional Economic Development through Archaeotourism	6	75.00%
4 – Importance of Preserving Archaeological Resources	5	62.50%
5 – Archaeological Sites Increase Regional Investment	2	25.00%
6 – Halting Construction in Archaeological Sites	2	25.00%
Coded Documents	8	100.00%
Uncoded Documents	0	100.00%



Graph 5.2.5. Code-based frequency of the development/valorization of Zerzevan Castle Mithraeum archaeological site through tourism

Participants emphasized that Zerzevan Castle strengthens the touristic image of Diyarbakır:

“Archaeological sites enable the destination to become a tourism city.” (P6)

Touristic attractiveness is reinforced by the story of the castle and the Mithraeum temple:

“The fact that the story of the castle is a focal point is important for tourism potential.” (P4)

Archaeotourism provides direct contribution to the regional economy: *“The site directly affects the increase in the number of visitors to the city and the region, the development of tourism, and the rise in employment.” (P1)*

The increase in investments is supported by the establishment of tourism companies: *“It contributes to the opening of hotels, restaurants, etc., while tourism companies established with socio-cultural impact have increased employment.”* (P5)

Preservation and control of constructions are considered critical for sustainability: *“This should be carried out by experts, and public institutions should only provide financial support, not be involved in the construction part.”* (P8)

Sustainable management plans are evaluated as a fundamental tool for long-term preservation: *“Sustainable management plans are a positive step for the long-term preservation of the site and the balanced development of tourism.”* (P2)

The valorization of Zerzevan Castle and the Mithraeum through tourism strengthens the city’s touristic image and makes cultural heritage recognized at national and international levels. Archaeotourism, with the increasing number of visitors and the production of souvenirs, provides direct contribution to the regional economy, while the acceleration of investments and the increase in employment opportunities support economic development. The preservation of resources and the halting of constructions are of critical importance for sustainable tourism.

5.2.6. Sustainable Archaeotourism and Social Value (Heritage Value)

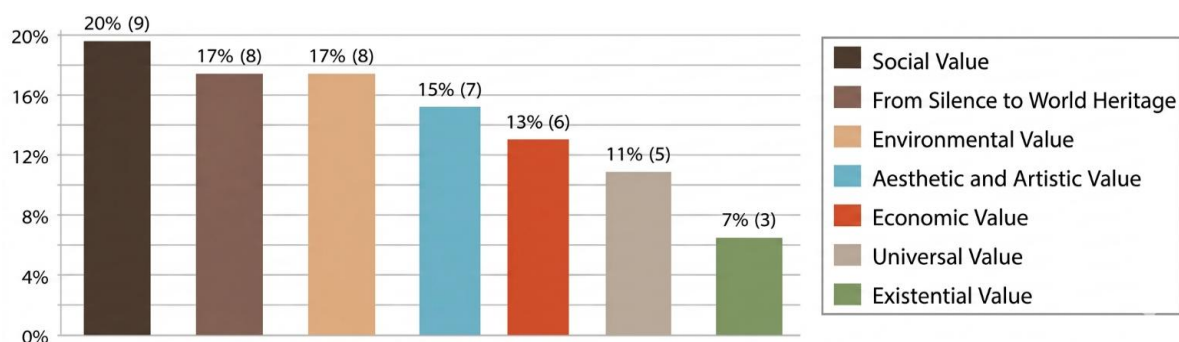
The case of Zerzevan Castle demonstrates that archaeological heritage is not limited to preservation alone; rather, it integrates social, economic, environmental, and cultural dimensions to create a sustainable value. This multidimensional approach has transformed the site into a strategic tourism and cultural center at both local and global levels.

As shown in Table and Figure 5.2.6, the most emphasized values were the aesthetic–artistic (75%) and economic (75%) dimensions. Social value (62.5%) supports community ownership, while *“From Silence to World Heritage”* and environmental values were

highlighted at a rate of 50%. Universal value (37.5%) and existential value (12.5%) were expressed in a more limited manner.

Table 5.2.6. Sustainable archaeotourism and social value (heritage value) document-based frequency

Kodlar	Belgeler	Yüzde
1 – Aesthetic and Artistic Value	6	75,00
2 – Economic Value	6	75,00
3 – Social Value	5	62,50
4 – From Silence to World Heritage	4	50,00
5 – Environmental Value	4	50,00
6 – Universal Value	3	37,50
7 – Existential Value	1	12,50
Coded Documents	8	100,00
Uncoded Documents	0	0,00
Analyzed Documents	8	100,00



Graph 5.2.6. Code-based frequency of sustainable archaeotourism and social value (heritage value)

Participants stated that Zerzevan Castle, which was an unknown site before 2014, has turned into a destination attracting 400,000 visitors annually after the excavations: *“In 2014, excavation and conservation works were initiated at Zerzevan Castle for the first time.”* (P1) *“The castle, with an annual visitor flow of more than 400,000, has become an important destination center of the region.”* (P2)

The UNESCO process has increased the international recognition of the site and certified its universal value: *“Zerzevan Castle and the Mithras Sanctuary were included in the UNESCO World Heritage Tentative List in 2020.”* (P1)

Aesthetic and artistic value has been combined with architectural beauty and cultural events:

“The castle has significant tourism potential thanks to its original structures.” (P2) “The continuation and increase of cultural, artistic, and social events held at the site are also important for tourism.” (P1)

Existential value has come to the fore through the formation of a common story and identity:

“The common story, establishing a connection with the place, and the creation of place identity.” (P4)

Environmental value has been supported through sustainable tourism practices: *“Sustainable management plans are a positive step for the long-term preservation of the site and the balanced development of tourism.” (P2)*

Economic value has been materialized through tourism revenues and employment: *“By employing local people during the works, a positive economic impact has already been provided to local communities.” (P1)*

Social value has come to the fore in terms of cultural interaction and welfare: *“It is important that it is a point bringing together people from all segments.” (P7) “Direct and indirect employment is provided from districts and villages.” (P6)*

The heritage values highlighted in the context of sustainable archaeotourism at Zerzevan Castle and the Mithraeum have been integrated not only with social interaction and cultural sharing but also with aesthetic, economic, and environmental dimensions. The UNESCO process has certified universal values at the international level, while existential value has strengthened social belonging through identity and memory. This multidimensional approach has transformed Zerzevan Castle into not only an archaeological site but also a heritage center supporting the social, economic, and cultural pillars of sustainable tourism.

5.2.7. Tourism Potential of Zerzevan Castle and the Mithraeum (Authentic Experience)

The tourism potential of Zerzevan Castle and the Mithraeum, in the context of authentic experience, is shaped both through objective authenticity (preservation of tangible heritage elements, atmosphere, scientific verification) and existential authenticity (sense of belonging, flow of historical knowledge, connection with the past, function as an open-air museum, illumination through archaeological findings).

As shown in Table and Figure 5.2.7, existential authenticity (75%) was most strongly emphasized by participants, while objective authenticity (50%) highlighted the originality of the site’s tangible and historical remains. The high rate of coded documents (87.5%) demonstrates that the theme of authenticity was widely expressed among participants.

Table 5.2.7. Document-Based Frequency of Zerzevan Castle and Mithraeum Tourism Potential (Authentic Experience)

CODES	DOCUMENTS	PERCENTAGE
1 – Existential Authenticity	6	75.00%
2 – Objective Authenticity	4	50.00%
3 – Coded Documents	7	87.50%
Uncoded Documents	1	12.50%
Analyzed Documents	8	100.00%



Graph 5.2.7. Code-based frequency of Zerzevan Castle and Mithraeum tourism potential (authentic experience)

Participants stated that Zerzevan Castle offers visitors the opportunity to establish personal and spiritual connections: “Such experiences correspond to authentic moments that tourists

want not only to see but also to feel and live.” (P2) *“The fact that it is a historical site that visitors can tour and see makes the castle significant.”* (P3) For the local community, the sense of belonging has come to the fore: *“These findings are an element of belonging for the local people.”* (P1) In the dimension of objective authenticity, the atmosphere of the site and the preservation of its original structures have drawn attention: *“Since Zerzevan is located outside the city, it is attractive to tourists in terms of being intertwined with nature.”* (P6) *“Since 2014, archaeological excavations at Zerzevan Castle have revealed significant findings from the Assyrian, Persian, Parthian, Sassanian, and Roman periods.”* (P2)

Participants stated that Zerzevan Castle offers visitors the opportunity to establish personal and spiritual connections: *“Such experiences correspond to authentic moments that tourists want not only to see but also to feel and live.”* (P2) *“The fact that it is a historical site that visitors can tour and see makes the castle significant.”* (P3) For the local community, the sense of belonging has come to the fore: *“These findings are an element of belonging for the local people.”* (P1) In the dimension of objective authenticity, the atmosphere of the site and the preservation of its original structures have drawn attention: *“Since Zerzevan is located outside the city, it is attractive to tourists in terms of being intertwined with nature.”* (P6) *“Since 2014, archaeological excavations at Zerzevan Castle have revealed significant findings from the Assyrian, Persian, Parthian, Sassanian, and Roman periods.”* (P2)

Scientific verification has strengthened the perception of authenticity: *“The works are carried out in a systematic and scientific manner. All the works are conducted through the collaboration of a scientific committee and the excavation presidency.”* (P2) The tourism potential of Zerzevan Castle is shaped through authentic experience. Existential authenticity enables visitors to make sense of the experience by establishing personal and spiritual connections, while objective authenticity is supported by the preservation of tangible heritage elements and scientific verification. This multidimensional authenticity makes Zerzevan

Castle a strong destination overlapping with UNESCO World Heritage criteria and creates strategic value in terms of sustainable tourism.

Discussion

The “Zerzevan Castle Cultural Heritage Perception and Sustainable Participation Scale” developed in this study has demonstrated high reliability ($\alpha=0.95$) and validity. The scale differentiated into six dimensions: sustainable development, value, authenticity, heritage conservation, financial contribution, and political/legal participation. The high factor loadings and the explained variance exceeding 71% revealed that the theoretical construct was strongly represented.

SmartPLS structural equation modeling has confirmed the chain of sustainability $\rightarrow$ value $\rightarrow$ authenticity $\rightarrow$ behavioral outcomes. The findings show that the perception of sustainability significantly affects the perception of value ($\beta=0.725$), the perception of value significantly affects the perception of authenticity ($\beta=0.661$), and authenticity significantly influences heritage conservation, financial contribution, and political participation behaviors ($\beta=0.549-0.577$). In indirect effects, the central mediating role of authenticity perception has come to the fore; this finding reveals that visitor behaviors in cultural heritage sites are shaped not only by cognitive but also by experiential foundations.

MAXQDA analyses have supported these quantitative findings at the contextual level.

Participants emphasized the themes of site management plan, local community participation, UNESCO process, economic contribution, social value, and authentic experience. Among the original findings, dynamic information provision, educational conservation, and inclusive accessibility came to the fore. The mysterious atmosphere of the Mithras Sanctuary offered a strong experience in terms of both objective and existential authenticity, reinforcing the sense of belonging to heritage. Table 6.1 Mixed-Method Findings visually demonstrates this integration.

Table 6.1. Table of Mixed Findings

Hypotheses	SmartPLS (Quantitative Results)	MAXQDA (Qualitative Codes / Themes)	Mixed (Integration)
H1: PSD → PVCZ	$\beta=0.725$, $t=18.181$, $p<.001$	Sustainable Management: Participants emphasized “perception of development,” “future generations,” and “local benefit”; site management plan, environmental planning, and stakeholder participation were supported by the UNESCO process and professional teams.	Perception of sustainable development feeds value perception; sustainable management plan and emphasis on future generations strengthen this link.
H2: PVCZ → PAZC	$\beta=0.661$, $t=19.843$, $p<.001$	Authenticity: Participants highlighted “connection with the past,” “sense of belonging,” “authentic experience,” and “in-situ conservation”; preservation of original structures reinforced authenticity perception.	Value perception increases authenticity perception; emotional and physical originality converge.
H3: PAZC → HCUB	$\beta=0.549$, $t=14.986$, $p<.001$	Heritage Conservation: Participants emphasized “restoration,” “maintenance and conservation,” “education,” and “community ownership”; continuity was ensured through scientific methods.	Authenticity supports heritage conservation; aligned with restoration and maintenance practices.
H4: PAZC → SFCB	$\beta=0.577$, $t=13.981$, $p<.001$	Financial Contribution: Participants highlighted “local community participation,” “economic value,” “tourism revenues,” “employment,” and “souvenir production.”	Authenticity increases financial contribution; sense of belonging and local participation strengthen economic support.
H5: PAZC → SLPIN	$\beta=0.448$, $t=8.650$, $p<.001$	Political Participation: Participants emphasized “stakeholder participation,” “legal strategy plan,” “local government cooperation,” “ministerial support,” and “community involvement.”	Authenticity increases political participation; supported by sense of ownership and legal plans.
H6: PSD → PVCZ → PAZC → SFCB	$\beta=0.276$, $t=9.116$, $p<.001$	Financial Contribution (Indirect): Participants linked “site management plan” and “stakeholder participation” with museum exhibitions and economic contributions.	Sustainable development perception indirectly supports financial contribution; consistent with museums and economic support.
H7: PSD → PVCZ → PAZC → HCUB	$\beta=0.263$, $t=8.655$, $p<.001$	Heritage Conservation-Utilization (Indirect): Participants associated “restoration” and “environmental planning” with continuity and scientific methods.	Sustainable development perception indirectly supports heritage conservation; overlaps with maintenance and ownership.
H8: PVCZ → PAZC → SLPIN	$\beta=0.296$, $t=7.191$, $p<.001$	Political Participation (Indirect): Participants linked “local government” and “community involvement” with education, awareness, and legal protection findings.	Value perception increases political participation; supported by local government cooperation.
H9: PSD → PVCZ → PAZC	$\beta=0.479$, $t=13.522$, $p<.001$	Authenticity (Indirect): Participants associated “site management plan” and “UNESCO process” with existential and objective authenticity findings.	Sustainable development perception strongly supports authenticity perception; aligned with UNESCO process.
H10: PSD → PVCZ → PAZC → SLPIN	$\beta=0.215$, $t=6.586$, $p<.001$	Political Participation (Indirect): Participants linked “stakeholder participation” and “legal strategy plan” with local government cooperation and ministerial support findings.	Sustainable development perception indirectly affects political participation; weak effect but supported by stakeholder participation.
H11: PVCZ → PAZC → HCUB	$\beta=0.363$, $t=10.379$, $p<.001$	Heritage Conservation-Utilization Behavior (Indirect): Participants associated “restoration” and “ownership” with continuity and scientific method findings.	Value perception strengthens heritage conservation-utilization behavior through authenticity; overlaps with ownership and restoration.
H12: PVCZ → PAZC → SFCB	$\beta=0.381$, $t=10.606$, $p<.001$	Financial Contribution (Indirect): Participants linked “local community participation” and “economic value” with tourism revenues and employment findings.	Value perception strengthens financial contribution through authenticity; consistent with economic value and local participation.

SmartPLS results found all hypotheses statistically significant, while MAXQDA analyses explained the contextual dimension of these relationships. For example:

- Sustainability → value perception was supported by the codes “*future generations*” and “*local benefit.*”
- Value → authenticity perception overlapped with the codes “*connection with the past*” and “*in-situ conservation.*”
- Authenticity → behavioral outcomes were reinforced by the codes “*restoration,*” “*local community participation,*” and “*legal plan.*”

These findings are consistent with the authenticity theories of Cohen (1988a), MacCannell (1973), and Wang (1999), and support the literature on local community participation and economic sustainability (Chhabra, 2010; Garrod & Fyall, 2000). Moreover, the frequently debated balance between conservation and economic benefit in tourism is also observed in the case of Zerzevan Castle. Managers prioritize conservation, belonging, and local community participation. While this approach is compatible with community-based heritage management, it remains open to debate whether participation is formal or genuinely democratic (Tosun, 2000; Pretty, 1995). The UNESCO process is regarded as an opportunity to certify the universal value of the site; however, it is also considered a risk factor that may increase visitor intensity and place pressure on conservation (Labadi, 2013).

The research findings also demonstrate that sustainable management practices at Zerzevan Castle have created a positive perception in terms of visitor experience, ease of access, and the preservation of cultural heritage. They provide original contributions to the literature in dimensions such as dynamic information systems (Leask, 2010), conservation–information integration (Garrod & Fyall, 2000), inclusive accessibility (Darcy, 2010), and nature-compatible arrangements (Timothy & Boyd, 2003).

In conclusion, the developed model demonstrates that the perception of sustainable development directly affects the perception of value; the perception of value directly affects the perception of authenticity; and the perception of authenticity directly influences behavioral outcomes (conservation, financial support, political participation). Although these relationships have been examined in a fragmented manner in the literature, this study provides an original contribution by integrating these concepts into a single sequential chain. The findings are directly related to Wang's (1999) approach of "*existential authenticity*" and Cohen's (1988a) debates on tourist authenticity.

Conclusion and Recommendations

This study examined the management of sustainable archaeotourism in the case of Zerzevan Castle and the Mithraeum, and confirmed the sequential chain of sustainable development → value → authenticity → behavioral outcomes through both quantitative and qualitative findings. The results demonstrate that authenticity is not merely an element of experiential satisfaction; it also functions as a strategic mechanism that nourishes multidimensional outcomes such as conservation behavior, financial contribution, and political participation. The themes emphasized in participant views—transmission to future generations, preservation of cultural heritage, generation of local economic benefits, and managerial cooperation—reveal that Zerzevan Castle is not only a touristic attraction center but also a carrier of social, cultural, and economic sustainability.

The original contribution of this research is the integration of the concepts of sustainability, value, and authenticity—often addressed in a fragmented manner in the literature—into a single structural model. This model reveals authenticity as a central mediating mechanism extending to behavioral outcomes, thereby adding a new dimension to the cultural heritage management literature. The findings are consistent with Wang's (1999) approach of

“*existential authenticity*” and Cohen’s (1988a) theory of authenticity, while offering an original extension by linking them to behavioral outcomes.

The structural model proposed in this study demonstrates that the perception of sustainable development (PSD) and the perception of value of Zerzevan Castle (PVCZ) lead to behavioral outcomes through the mediating role of the perception of authenticity of Zerzevan Castle (PAZC). In the model presented in Diagram 8.1, PAZC is positioned both as a dependent and an independent mediating variable; this dual role reveals that authenticity is not only an element of experiential satisfaction but also a strategic mechanism that produces direct effects on conservation behaviors (HCUB), financial contribution behaviors (SFCB), and sustainable legal and political participation intentions (SLPIN). This theoretical chain (PSD → PVCZ → PAZC → HCUB, SFCB, SLPIN) confirms the original contribution of the model and its high predictive capacity.

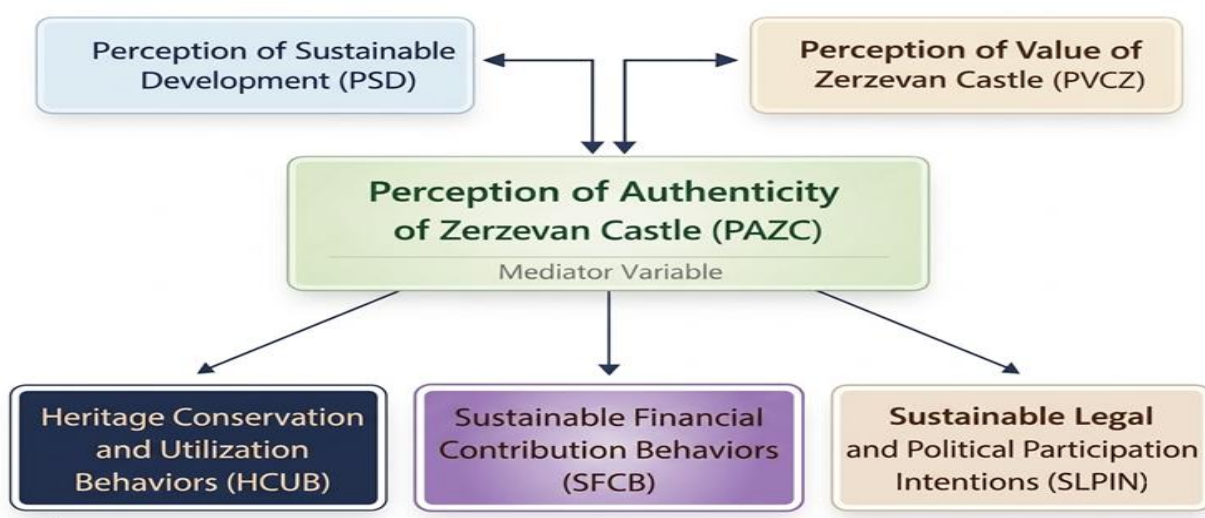


Diagram 7.1. Research model; mediating, dependent, and independent variables

Core Assertions of the Model:

- **Perceptual–Behavioral Chain:** Sustainable management does not directly affect visitor behavior; rather, it influences it first through value perception and subsequently through authenticity perception.

- Managerial Paradigm Shift: The conservation of heritage sites is not solely the responsibility of archaeologists or the state; it is a collective process shaped by the meaning-making of visitors.
- Uniqueness of the Zerzevan Case: The historical depth of the Mithraeum has been the most influential factor in reinforcing authenticity perception; this finding demonstrates the critical importance of storytelling and experience design within the management model..

The findings obtained at the Zerzevan Castle Mithraeum have laid the groundwork for the development of the following policy and practice recommendations to ensure the preservation and transmission of cultural heritage to future generations:

- Experience-oriented conservation: Visitors should be offered interactive routes that allow them to discover the value and authenticity of the site, rather than merely imposing restrictions.
- Integration of the local community: Participation should not be symbolic but effective and sustainable in decision-making processes.
- Authenticity strategy: Original materials should be used in restorations, and excessive commercialization should be avoided.
- Financial sustainability: Tourism revenues should remain local and be diversified through souvenirs and cultural events.
- Political participation: Cooperation among local government, ministries, and communities should be strengthened.
- UNESCO process: While opportunities for international recognition should be utilized, measures must be taken against the pressure of increased visitor density.
- Interdisciplinary cooperation: Contributions from experts in architecture, environmental sciences, and technology should be enhanced.

- Inclusive access: Accessibility for people with disabilities and nature-compatible arrangements should be prioritized.

These recommendations provide a practical roadmap for site managers, local governments, and policymakers.

7.1. Limitations and Future Research

- The study is limited to a specific sample and time frame; different socio-cultural and environmental factors have been excluded.
- Future research is recommended to test the model in different archaeological sites and to conduct comparative and longitudinal studies.
- The integration of digitalization, crisis management, climate change, and sustainable heritage policies into the model will provide new insights.

7.2. Final Evaluation

The case of Zerzevan Castle demonstrates that sustainable archaeotourism is not merely a technical or economic issue; rather, it is a multi-layered governance process shaped by visitor and local stakeholder perceptions, authenticity, and social participation. In this respect, the study provides an original contribution to the sustainable tourism literature at both theoretical and practical levels, and establishes an applicable reference framework for similar heritage sites.

Acknowledgments

I would like to express my sincere gratitude to Prof. Dr. Aytaç Coşkun, the head of the Zerzevan Castle excavation, and to the excavation team. I also extend my special thanks to the deputy excavation director, Şivan Ayusu, for his valuable support and contributions. Their dedication, collaboration, and guidance during the research process have significantly enriched the scientific quality of this study.

I am deeply thankful for their efforts in preserving and advancing cultural heritage.

References

- Aas, C., Ladkin, A., & Fletcher, J. (2005). Stakeholder collaboration and heritage management. *Annals of Tourism Research*, 32(1), 28–48. <https://doi.org/10.1016/j.annals.2004.04.005>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Alazaizeh, M., Jamaliah, M. M., & Mgonja, J. T. (2019a). Dimensions of sustainable visitor behavior: Policy compliance and general practices. *Journal of Sustainable Tourism*, 27(6), 823–842. DOI: 10.1080/09669582.2018.1560456
- Anghel, A., Bîră, M., & Zbucea, A. (2022a). Heritage management and organizational governance in archaeological sites. *Journal of Cultural Heritage Management*, 15(2), 145–162.
- Anghel, R., Bîră, M., & Zbucea, A. (2022b). Governance and heritage management in tourism: Stakeholder perspectives and challenges. *Journal of Tourism and Cultural Change*, 20(5), 456–472. <https://doi.org/10.1080/14766825.2022.204123>
- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>
- Ashworth, G. J., & Tunbridge, J. E. (1990). *The tourist-historic city*. Belhaven Press
- Asmelash, A. G., & Kumar, S. (2019). The structural relationship between sustainable tourism development and sustainable development goals. *Journal of Sustainable Tourism*, 27(7), 1–19. <https://doi.org/10.1080/09669582.2019.1624365>
- Ayus, Ş. (2021). Zerzevan Kalesi Geç Roma ve Geç Antik Dönem mutfak kapları [Yayınlanmamış yüksek lisans tezi]. Batman Üniversitesi.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Blasco López, M. F., Recuero Virto, N., Aldas Manzano, J., & Garcia-Madariaga, J. (2018). Tourism sustainability in archaeological sites. *Journal of Cultural Heritage Management and Sustainable Development*, 8(3), 276-292.
- Buonincontri, P., Marasco, A., & Ramkissoon, H. (2017). Visitors' experience, place attachment and sustainable behaviour at cultural heritage sites: A conceptual framework. *Sustainability*, 9(7), 1112
- Butler, R. W. (1999). Sustainable tourism: A state-of-the-art review. *Tourism Geographies*, 1(1), 7–25.
- Can, E. (2016). Turizm Destinasyonlarında Sürdürülebilir Turizmin Sürdürülebilir Rekabet Açısından Değerlendirilmesi, *İstanbul Sosyal Bilimler Dergisi*, (4), 23-40.
- Can, F. (2017). New dimensions of sustainable development, *International Journal of Academic Value Studies, (Javstudies) vol: 3, Issue: 10*, pp. 138-146 ISSN:2149-8598.
- Carbone, F., Oosterbeek, L., & Costa, C. (2012a). The educational and awareness purposes of the Paideia approach for heritage management. *Natural Hazards and Earth System Sciences*, 12(6), 1983–1986. <https://doi.org/10.5194/nhess-12-1983-2012>

- Carbone, F., Oosterbeek, L., & Costa, C. (2012b). Cultural heritage and tourism: A Paideia approach. *International Journal of Heritage Studies*, 18(6), 555–569.
- Carbone, F., Oosterbeek, L., & Costa, C. (2013). Paideia approach for heritage management: The tourist enhancement of archaeological heritage on behalf of local communities. *PASOS: Revista de Turismo Patrimonio Cultural*, 11(2), 285–295. <https://doi.org/10.25145/j.pasos.2013.11.018>
- Cheng, T. E., Li, S., Zhang, H., & Cao, M. (2021a). Examining the antecedents of environmentally responsible behaviour: relationships among service quality, place attachment and environmentally *Responsible Behaviour*. *Sustainability*, 13(18), 10297. <https://doi.org/10.3390/su131810297>
- Chhabra, D. (2010). Back to the past: Identifying tourism authenticity for postmodern consumers. *Tourism Recreation Research*, 35(2), 159–170. <https://doi.org/10.1080/02508281.2010.11081632>
- Choi, H. C., & Sirakaya, E. (2005). Sustainability indicators for managing community tourism. *Tourism Management*, 26(3), 425–432.
- Cleere, H. (1989). *Archaeological heritage management in the modern world*. London: Unwin Hyman.
- Cohen, E. (1988a). Authenticity and commoditization in tourism. *Annals of Tourism Research*, 15(3), 371–386. [https://doi.org/10.1016/0160-7383\(88\)90028-X](https://doi.org/10.1016/0160-7383(88)90028-X)
- Coşkun, A. (2015a). Zerzevan Kalesi 2014 yılı kazı çalışmaları: İlk sezon. Kazı Sonuçları Toplantısı, 1, 37, 101–128.
- Coşkun, A. (2015b). Çınar tarihi: Medeniyetin kavşağında bir ilçe Çınar. In Y. K. Haspolat (Ed.), *Zerzevan Kalesi kazıları* (pp. 92–98). Ankara: MRK Matbaası.
- Coşkun, A. (2016a). Zerzevan Kalesi 2015 yılı kazı çalışmaları: 2. sezon. Kazı Sonuçları Toplantısı, 1(38), 125–150.
- Coşkun, A. (2016b). Zerzevan Kalesi Roma sınır garnizonu. *Aktüel Arkeoloji*, Mayıs–Haziran, 6–9.
- Coşkun, A. (2016c). Roma askeri yerleşimi Zerzevan Kalesi’nde yeni kazılar. In *Uluslararası Diyarbakır Sempozyumu Bildirileri*, 1, 47–59.
- Coşkun, A. (2017a). Zerzevan Castle in the light of recent archaeological researches. *Anatolia*, 43, 91–110.
- Coşkun, A. (2017b). Zerzevan Kalesi 2016 yılı kazı çalışmaları: 3. sezon. Kazı Sonuçları Toplantısı, 2(39), 405–422.
- Coşkun, A. (2019). *Zerzevan Kalesi: Roma’nın sınır garnizonu* (3rd ed.). T.C. Diyarbakır Valiliği Kültür Sanat Yayınları.
- Coşkun, A. (2021). Doğu Roma’dan bugüne Zerzevan Kalesi. In N. H. Kızılkay (Ed.), *Diyarbakır kültür ve medeniyet dergisi*, 1, 88–98.
- Coşkun, A. (2022). Diyarbakır Zerzevan Kalesi’nde bulunan Mithras kültü üzerine değerlendirmeler. In M. Bulut (Ed.), *Diyarbakır’ın portresi*.
- Coşkun, A. (2023a). An evaluation of the original identity problem and structural design of Zerzevan Castle. *Anadolu Araştırmaları*, 28, 119–142.

- Coşkun, A. (2023b). Zerzevan Kalesi kazılarının dünü ve bugünü. In A. Coşkun (Ed.), Roma'nın sınır garnizonu Zerzevan Kalesi: Geçmişten geleceğe (pp. 2–26). Orient Yayınları.
- Coşkun, A., & Ayus, Ş. (2023). Astronomi, Mithras ve Diyarbakır'da gökyüzü gözlem etkinlikleri. Diyarbakır, 7, 59–65.
- Coşkun, A., & Ayus, Ş. (2024). Zerzevan Kalesi ve Mithras Kutsal alanı arkeolojik kazı çalışmalarının Diyarbakır tarihi turizmine katkısı. In A. Karakaş et al. (Eds.), Diyarbakır gelecek tasavvuru, 211–233.
- Coşkun, A., & E. Oğuz-Kırca, E. D. (2022). Beyond the roman east: an archaeological evaluation of the Mithraeum based on its architectural authenticity at Castrum Zerzevan (Diyarbakır, Turkey). *Journal of Ancient History and Archaeology*, 9(2).
- Coşkun, A., & Oğuz-Kırca, E. D. (2023b). An evaluation of the original identity problem and structural design of Zerzevan Castle. *Anadolu Araştırmaları-Anatolian Research*, 28, 119–142.
- Coşkun, A., & Oğuz-Kırca, E. D. (2022). Beyond the Roman East: An archaeological evaluation of the Mithraeum based on its architectural authenticity at Castrum Zerzevan (Diyarbakır, Turkey). *Journal of Ancient History and Archaeology*, 9(2).
- Coşkun, A., & Oğuz-Kırca, E. D. (2023a). Benzersiz bir kaya oygu yapılar kompleksi olarak Zerzevan Kalesi'ndeki Mithraeum. In A. Coşkun (Ed.), Roma'nın sınır garnizonu Zerzevan Kalesi: Geçmişten geleceğe (pp. 46–76). Orient Yayınları.
- Coşkun, A., & Oğuz-Kırca, E. D. (2023b). An evaluation of the original identity problem and structural design of Zerzevan Castle. *Anadolu Araştırmaları*, 28, 119–142.
- Coşkun, A., Ayus, Ş., & Durma, F. (2024). Zerzevan Kalesi 2022 yılı çalışmaları. Kazı Sonuçları Toplantısı, 43.
- Coşkun, A., Ayus, Ş., & Durma, F. (2025b). Zerzevan Kalesi 2023 yılı çalışmaları. Kazı Sonuçları Toplantısı, 44.
- Coşkun, A., Oğuz-Kırca, E. D., & Demirciler, V. (2025a). Zerzevan Kalesi ve Mithraeumu'nun benzersizliğini kanıtlayan çok yönlü karşılaştırmalara dayalı kültürel miras analizi. OANNES – Uluslararası Antik Tarih Dergisi, 7(1), 39–63. <https://doi.org/10.33469/oannes.1540862>◆
- Coşkun, A., ve Oğuz Kırca, E.D. (2023a)., “Benzersiz bir kaya oygu yapılar kompleksi olarak Zerezevan Kalesi'ndeki Mithraeum / The Mithraeum At Castrum Zerzevan as a unique complex of rock hewn structures. İçinde Aytaç Coşkun (Ed), Roma'nın Sınır Garnizonu Zerzevan Kalesi Geçmişten Geleceğe / Roman Border Garrison Zerzevan Castle – From Past to the Future, Orient Yayınları, 46-76
- Coşkun., A. (2022). *Diyarbakır Zerzevan Kalesi'nde Bulunan Mithras Kültü üzerine değerlendirmeler*. İçinde Mustafa Bulut (Ed.), Diyarbakır'ın Portresi, Detay Yayıncılık, Ankara
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. (4th ed.). Thousand Oaks, CA: Sage.

- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research. (3rd ed.)*. Thousand Oaks, CA: Sage.
- Dans, E. P., & González, P. A. (2019). Sustainable tourism and social value at World Heritage Sites: Towards a conservation plan for Altamira, Spain. *Annals of Tourism Research*, 74, 68-80.
- DeVellis, R. F. (2012). *Scale development: Theory and applications. (3rd ed.)*. Sage.
- Diker, O. (2016). Kültürel miras turizmi ve sosyo-kültürel farklılıklar. *Turizm Akademik Dergisi*, 3(2), 365–380.
- Doğan, M. (2013). Bir kriz faktörü olarak taşıma kapasitesi aşımı ve Bozcaada örneği. *Trakya Üniversitesi Sosyal Bilimler Dergisi*, 1(3).
- Domínguez-Quintero, A. M., González-Rodríguez, M. R., & Paddison, B. (2020). The mediating role of experience quality on authenticity and satisfaction in the context of cultural-heritage tourism. *Current Issues in Tourism*, 23(2), 248-260
- Dursun, F., & Coşkun, A. (2020). A preliminary study on material properties of the Zerzevan Castle, Turkey. [Conference presentation]. IOP Conference Series: Materials Science and Engineering, 949(1), 012038.
- Ekiz, E. (2015). *Bilimsel araştırma yöntemleri*. Anı Yayıncılık.
- European Commission. (2020). *Sustainability and cultural heritage – Culture and creativity*. European Union. <https://culture.ec.europa.eu>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149g>
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics. (4th ed.)*. Sage.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behavior: The reasoned action approach*. Psychology Press.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Fowler, D. D. (1987). Uses of the past: Archaeology in the service of the state. *American Antiquity*, 52(2), 229–248. <https://doi.org/10.2307/281778>
- Garrod, B., & Fyall, A. (2000). Managing heritage tourism. *Annals of Tourism Research*, 27(3), 682–708. [https://doi.org/10.1016/S0160-7383\(99\)00094-8](https://doi.org/10.1016/S0160-7383(99)00094-8)
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101–107. <https://doi.org/10.1093/biomet/61.1.101>
- Graham, B., Ashworth, G., & Tunbridge, J. (2000). *A geography of heritage. (1st ed.)*. Routledge.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Thousand Oaks, CA: Sage.
- Gürlük, S. (2010). Sürdürülebilir kalkınma geliştirmekte olan ülkelerde uygulanabilir mi. *Eskişehir Osmangazi Üniversitesi İİBF Dergisi*, 5(2), 85-99.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2017a). *Multivariate data analysis. (7th ed.)*. Pearson.

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)*. (3rd ed.). Sage
- Harrison, R. (2013). Heritage and the legacy of colonialism: Managing archaeological sites in a global context. *International Journal of Heritage Studies*, 19(5), 473–488.
- Harvey, D. C. (2001). Heritage pasts and heritage presents: temporality, meaning and the scope of heritage studies. *International Journal of Heritage Studies*, 7(4), 319–338.
- Hassan, F. (2014). Tangible heritage in archaeology. In C. Smith (Edt), *Encyclopedia of Global Archaeology* (pp. 1–8). Springer. https://doi.org/10.1007/978-1-4419-0465-2_1141
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Honey, M. (2008). *Ecotourism and sustainable development: Who owns paradise?*. Island Press.
- ICOMOS. (1990). *Charter for the Protection and Management of the Archaeological Heritage*. International Council on Monuments and Sites.
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20(1), 141–151.
- Karadoğan, S., & Coşkun, A. (2017). Çevresel koşulları ve konumu açısından Zerzevan Kalesi (Diyarbakır). [Konferans sunumu] Uluslararası Diyarbakır Sempozyumu, 115–134.
- Karadoğan, S., & Coşkun, A. (2017). Çevresel koşulları ve konumu açısından Zerzevan Kalesi (Diyarbakır). [Konferans sunumu] Uluslararası Diyarbakır Sempozyumu, 115–134.
- Karadoğan, S., & Coşkun, A. (2018). Kültürel jeoloji açısından Zerzevan Kalesi (Diyarbakır/Çınar). [Konferans sunumu]. 71. Türkiye Jeoloji Kurultayı Bildirileri, 489–492.
- Karadoğan, S., & Coşkun, A. (2018). Kültürel jeoloji açısından Zerzevan Kalesi (Diyarbakır/Çınar). [Konferans sunumu]. 71. Türkiye Jeoloji Kurultayı Bildirileri, 489–492.
- Kaypak, Ş. (2010). Ekolojik turizmin sürdürülebilirliği. *Uluslararası Alanya İşletme Fakültesi Dergisi*, 2(2), 93–114.
- Kolar, T., & Zabkar, V. (2010). A consumer-based model of authenticity: An oxymoron or the foundation of cultural heritage marketing?. *Tourism management*, 31(5), 652–664.
- 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, 100700. <https://doi.org/10.1016/j.tmp.2020.100700>
- Kuckartz, U., & Rädiker, S. (2019). *Analyzing qualitative data with MAXQDA: Text, audio, and video*. Springer.
- Kurniawan, H., Salim, A., Suhartanto, H., & Hasibuan, Z. A. (2011). *E-cultural heritage and natural history framework: An integrated approach to digital preservation*.

- [Conference presentation]. In International Conference on Telecommunication Technology and Applications (IACSIT) (pp. 177–182). Singapore.
- Kvale, S. (2007). *Doing interviews*. Sage.
- Labadi, S. (2013). *UNESCO, cultural heritage, and outstanding universal value: Value-based analyses of the World Heritage and Intangible Cultural Heritage Conventions*. AltaMira Press.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159–174.
- Leask, A. (2010). Progress in visitor attraction management: A review of research. *Tourism Management*, 31(2), 155–166.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.
- Liu, Y., Zhang, J., & Huang, S. (2023). The impacts of ecotourists' perceived authenticity and perceived value on environmentally responsible behaviors: Evidence from Huangshan World Natural and Cultural Heritage Site. *Sustainability*, 15(2), 1551. <https://doi.org/10.3390/su15021551>
- López, M., Serrano, A., & Iglesias, M. (2018). Market orientation and innovation as drivers of sustainable performance in heritage tourism organizations. *Journal of Heritage Tourism*, 13(3), 230–245. <https://doi.org/10.1080/1743873X.2017.1408716>
- MacCannell, D. (1973). Staged authenticity: Arrangements of social space in tourist settings. *American Journal of Sociology*, 79(3), 589–603.
- Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: Conceptualization, measurement and application in the catalog and Internet shopping environment. *Journal of Retailing*, 77(1), 39–56.
- McCool, S. F., & Lime, D. W. (2001). Tourism carrying capacity: Tempting fantasy or useful reality? *Journal of Sustainable Tourism*, 9(5), 372–388.
- McHugh, M. L. (2012). *Interrater reliability: The kappa statistic*. *Biochemia Medica*, 22(3), 276–282.
- McKercher, B., & du Cros, H. (2002). *Cultural tourism: The partnership between tourism and cultural heritage management*. Routledge.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook (2nd ed.)*. Thousand Oaks, CA: Sage Publications.
- Nunnally, J. C. (1978). *Psychometric theory*. (2nd ed.). New York: McGraw-Hill.
- Park, S., Choi, S., & Lee, S. (2019). Tourist perceptions of authenticity and revisit intention: Evidence from heritage destinations. *Journal of Sustainable Tourism*, 27(4), 555–572. <https://doi.org/10.1080/09669582.2018.1554705>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods (4th ed.)*. Thousand Oaks, CA: Sage.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>

- Pretty, J. N. (1995). Participatory learning for sustainable agriculture. *World Development*, 23(8), 1247–1263.
- Ramkissoon, H., & Uysal, M. (2011). The effects of perceived authenticity, satisfaction, and destination image on behavioral intentions. *Journal of Travel Research*, 50(6), 658–673. <https://doi.org/10.1177/0047287510380073>
- Renfrew, C., & Bahn, P. (2016). *Archaeology: Theories, Methods, and Practice*. Thames & Hudson. London.
- Richards, G. (1996). *Cultural Tourism in Europe*. CAB International.
- Robson, C. (1993). *Real world research: A resource for social scientists and practitioner-researchers*. Oxford: Blackwell.
- Ross, D., & Saxena, G. (2019). Participative co-creation of archaeological heritage: Case insights on creative tourism in Alentejo, Portugal. *Annals of Tourism Research*, 79, 102790.
- Saltman, M., & Abuamoud, I. (2020). The sustainable management of cultural heritage sites: Tourism and the politics of archaeology at Petra. *Academic Journal of Interdisciplinary Studies*, 9(4), 228–239. <https://doi.org/10.36941/ajis-2020-0060>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105–115.
- Smith, L. (2006). *Uses of heritage*. Routledge.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407–424. <https://doi.org/10.1111/0022-4537.00175>
- Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society: Series B (Methodological)*, 36(2), 111–147.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics*. (7th ed.). Boston: Pearson.
- Tashakkori, A., & Teddlie, C. (2010). *Mixed methods in social & behavioral research*. (2nd ed.). Thousand Oaks, CA: Sage.
- Timothy, D. J., & Boyd, S. W. (2003). *Heritage tourism*. Harlow: Pearson Education.
- Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism Management*, 21(6), 613–633.
- UNEP & UNWTO. (2005). *Making tourism more sustainable*. A guide for policy makers (pp. 8–12).
- UNESCO. (1957). *Recommendation on international principles applicable to archaeological excavations*. Adopted by the General Conference at its ninth session, New Delhi, 11 December 1956. Paris: UNESCO.
- UNESCO. (2003). *Tangible and intangible cultural heritage*.
- UNESCO. (2009). *The 2009 UNESCO framework for cultural statistics*. Montreal: UNESCO Institute for Statistics.
- UNESCO. (2013). *World heritage resource*. Paris: UNESCO.

- UNESCO. (2015). *Policy document for the integration of a sustainable development perspective into the processes of the World Heritage Convention*. Paris: UNESCO Publishing.
- Valencia, J., Mileto, C., Vegas, F., & Cristini, V. (2022). *Archaeological heritage valorization through tourism*. [Conference presentation]. In C. Mileto, F. Vegas López-Manzanares, V. Cristini & L. García-Soriano (Eds.), *HERITAGE 2022. International Conference on Vernacular Heritage: Culture, People and Sustainability* (ISBN 978-84-1396-020-3). Universitat Politècnica de València.
- Wang, N. (1999). Rethinking authenticity in tourism experience. *Annals of Tourism Research*, 26(2), 349–370. [https://doi.org/10.1016/S0160-7383\(98\)00103-0](https://doi.org/10.1016/S0160-7383(98)00103-0)
- WCED. (1987). *Our common future*. Oxford University Press.
- Yüksek, G., İstanbullu Dinçer, F., & Dinçer, M. Z. (2019). Seyitgazi İlçesi Paydaşlarının Sürdürülebilir Turizm Farkındalıkları, *Uluslararası Türk Dünyası Turizm Araştırmaları Dergisi*, 4(1), 107-121.