Leveraging Cultural Heritage for Sustainable Tourism Growth: Contemporary Strategies for Conservation and Promotion

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Abstract: The study's relevance is determined by the need to preserve and effectively use the national cultural heritage as a strategic resource for tourism development. Cultural heritage, which includes tangible, intangible and natural elements, is an important resource for innovative tourism development. The study aims to examine in detail the multifunctional role of cultural heritage in stimulating the development of the tourism industry, with a special emphasis on modern approaches to its preservation and promotion. The study analysed global practices of cultural heritage to increase tourist attractiveness and considered the main challenges related to preservation and economic benefits. The logical-structural method was used to create a conceptual model that explains the relationship between cultural sites and tourist demand. The use of the modal generalisation method helped to identify successful strategies for integrating heritage into tourism activities at the local and international levels. Econometric modelling allowed for a quantitative analysis of the factors influencing the demand for heritage sites. The model revealed that the parameters of tourist motivation, available time, financial capabilities and infrastructure capacities of destinations are key in shaping tourist demand. The results underline the need to develop innovative approaches to promote heritage through interactive media, educational initiatives and improved logistics. It is also important to improve infrastructure, create accessible tourism products and optimise routes to attract more tourists to cultural heritage sites.

Keywords: cultural heritage, tourism, sustainable development, econometric modelling, heritage integration, cultural promotion.

Introduction

ultural heritage, being an important element of national identity, plays a significant role in the socio-economic development of society, as it becomes a source of preserving historical memory, strengthening national consciousness and forming a positive image of the state in the international arena, which is especially relevant in the current context of globalisation and urbanisation [1]. Modern tourism focused on cultural heritage is increasingly recognised as a key driver of sustainable economic growth, especially for countries with rich historical heritage and unique cultural traditions, but challenges such as the uncontrolled growth of mass tourism, the negative impact of climate change and limited funding pose serious threats to the preservation of cultural sites, which in turn requires the search for innovative approaches to their protection, promotion and integration into the tourism sector [2, 3]. In the context of modern Ukraine, the problem of preserving cultural heritage is of strategic importance since, given the

consequences of the war and the country's post-war recovery, society faces the need not only to ensure the protection of cultural sites affected by hostilities but also to actively restore and promote them, which is becoming an integral part of national security and cultural revival.

The study aims to identify the tourist components of cultural heritage and develop a model for managing tourist flows in the coordinates of its preservation and promotion.

Literature review

In modern scientific research, cultural heritage is recognised as one of the most important resources that stimulates the development of the tourism industry. It contributes to the economic growth of regions, maintains social stability, and helps preserve cultural identity [4].

Certain researchers in the field of tourism highlight three fundamental types of cultural heritage: tangible, intangible, and natural. Tangible heritage includes elements such as architectural monuments, museums, and archaeological sites, forming the classical foundation for creating tourism products, thus significantly contributing to developing this type of tourism [5, 6]. As Kumar [7] observes, intangible heritage, encompassing traditions, customs, languages, and other spiritual expressions, is increasingly capturing the interest of the new generation of tourists due to its unique ability to enrich their experiences.

A wide range of studies focused solely on tangible heritage emphasises its resource potential for developing respective tourism destinations, particularly stressing the necessity of preserving this cultural heritage. Significant attention is paid to cultural sites included in the UNESCO World Heritage List, as they serve as major tourist attractions and contribute substantially to the economic and informational development of territories or administrative units [1]. Prominent historical landmarks, such as the Roman Colosseum or the Palace of Versailles, demonstrate the effectiveness of their use as cultural heritage sites in attracting tourists and stimulating the local economy [8].

Intangible heritage, such as traditional crafts, folk art, gastronomy, and festivals, often serves as a valuable complement to tangible cultural objects, creating unique tourist experiences. As Karatepe and Avci [9] noted, contemporary tourists are increasingly drawn to cultural events such as gastronomic tours or festivals, where they can immerse themselves in the authentic atmosphere of a region and its local tourist destinations. In this context, UNESCO's organisational approach [10] remains crucial, emphasising the necessity of preserving intangible heritage as a unique component of cultural identity [11].

Natural heritage, which includes landscapes, nature reserves, and national parks, plays an equally important role in the broad development of tourism and the tourism business, particularly with the growing popularity of "ecotourism." As evidenced by research materials [13], preserving natural resources contributes to creating sustainable tourism products that harmoniously integrate natural and cultural elements, attracting both domestic and international tourists to visit cultural heritage sites.

Scientists identify three main components of cultural heritage: tangible, intangible and natural. The tangible heritage, which includes architectural monuments, museums, and archaeological sites, has long been the basis for creating tourism products [5, 6]. Intangible heritage, including traditions, customs, languages and other spiritual manifestations, is gaining increasing attention due to its ability to enrich the tourist experience [7].

Studies on the role of tangible heritage in developing tourist destinations emphasise its preservation's importance. This is especially true for UNESCO World Heritage sites, key tourist attractions that generate significant economic benefits for local communities [1]. For example, sites such as the Roman Colosseum or the Palace of Versailles serve as examples of the effective use of cultural heritage to attract tourists and develop local economies [8]. Intangible heritage, which includes traditional crafts, folk art, gastronomy and festivals, complements tangible sites and provides a unique tourist experience. According to [9], modern tourists are increasingly eager to participate in cultural events, such as gastronomic tours or festivals, which allow them to learn the region's authentic culture. In this context, the approach proposed by UNESCO [10], which emphasises the need to preserve intangible heritage as an integral element of cultural identity, is important [11]. The natural heritage, including natural landscapes, nature reserves and national parks, also plays an important role in tourism development, especially ecotourism. According to research [12], conserving natural resources contributes to creating sustainable tourism products that harmoniously combine natural and cultural elements, attracting domestic and foreign tourists.

Modern approaches to cultural heritage preservation increasingly include innovative technologies. Using 3D scanning, virtual reality, and mobile applications helps promote heritage among young people and increase its accessibility [13, 14]. For example, interactive tours through mobile applications allow users to get information about attractions

without leaving their homes, which is especially important in the context of globalisation and the digitalisation of tourism [15].

Several popular studies [16, 17] emphasise the importance of applying the principles of sustainable development in cultural heritage management. Maintaining a balance between economic benefits and resource conservation is important for maintaining the long-term attractiveness of tourist destinations. Countries such as Italy, France, and Spain demonstrate that integrating these principles allows for preserving heritage for future generations while promoting the development of the tourism industry [18]. Based on the literature analysis, developing measures and practices that consider international experience and national peculiarities is a prerequisite for ensuring sustainable development of the tourism sector based on a broad cultural heritage and leading cultural sites.

Research methods

The logical-structural method was used to organise knowledge about cultural heritage and its importance in the tourism sector, and this method was also used to form a conceptual model describing the relationships between different components of cultural heritage, such as tangible, intangible and natural, and the impact of these components on the formation of tourist demand. This method allowed us to identify the main structural elements of cultural tourism, determining their direct impact on the development of the tourism industry and forming a precise sequence of research stages, which made it possible to systematise the tasks and identify tools for their implementation. The method of modal generalisation was used to study and systematise examples of the integration of cultural heritage into the tourism sector in Ukraine and abroad. This method was used to identify the main factors contributing to the success of tourist destinations in national and international contexts. Econometric modelling was used to determine the impact of the main factors on the demand for travel to cultural heritage sites. For this purpose, a multiple linear regression model

was built to estimate the dependence of demand (S_{ij}^k) on several determinants, such as motivation for tourist activity, available time, financial capabilities and opportunities to visit a cultural heritage destination.

Results

The modern understanding of cultural heritage involves the identification of its three main components: tangible, intangible and natural, each of which has a significant impact on the development of the tourism industry and the formation of its potential. Tangible cultural heritage includes objects that can be perceived physically, such as historical buildings, archaeological sites, museums, works of art and other artefacts that are evidence of the cultural progress of humanity. Due to their authenticity and uniqueness, these objects become symbols of history and culture, attracting millions of tourists who seek to touch the past through material evidence of its existence. Modern studies of cultural tourism use a variety of criteria to classify it, which allows us to distinguish certain aspects of this phenomenon depending on its geographical, historical, or cultural context [19]. From a geographical perspective, cultural tourism is divided into domestic tourism, which includes travel within one's own country, and international tourism, which involves travelling to other countries to experience their cultural heritage. From a temporal perspective, cultural tourism can be divided into historical and cultural tourism, aimed at getting to know historical heritage, traditions and customs, and contemporary cultural tourism, which is focused on participation in festivals, art events and contemporary art.

In terms of cultural content, the most popular destinations are art tourism, which focuses on artistic travel; religious or spiritual tourism, which includes visits to holy places; thematic tourism, which focuses on highly specialised interests; historical and cultural tourism, which aims to explore historical and cultural monuments, and ecocultural tourism, which combines natural and cultural aspects. In addition, this category includes a new direction, conventionally called cultural and economic tourism, which includes innovative forms of travel that combine cultural and economic aspects [20]. Table 1 presents a generalised classification of cultural tourism types, considering the peculiarities of cultural heritage sites and the specifics of tourism activities. Below, each identified group's characteristics are described in detail.

Type of tourism	Characteristics	Objects and types of tourist activity
Art tourism	The process of implementing cultural tourism in the field of artistic creativity	Art festivals, pop and other shows, premieres, art exhibitions, and art architecture.
Religious (spiritual) tourism	tourism in the religious sphere or a cultural	Religious worship, rituals, religious buildings and structures, food, souvenirs and other cultural tourism activities related to religion, pilgrimage
Theme tourism	A type of cultural tourism based on a specific theme or built around one or more themes	± ·
Historical and cultural tourism	It realises the tourist's interest in the past, in recognised cultural values expressed in authentic "monuments" and traditions	Historical heritage (e.g., cultural sites in ancient cities and other settlements, cultural events, museums)
Ecocultural tourism		

Source: based on [21, 22, 23]

The role of cultural heritage in creating tourism products is vital, as it not only contributes to the socio-economic development of regions but also ensures the preservation of unique cultural values. For example, excursions to historic castles or archaeological sites can be made even more attractive by interactive elements such as historical reconstructions or multimedia presentations that allow for diving deeper into the atmosphere of the past [24].

Examples of successful integration of cultural heritage into the tourism sector can be found in many countries worldwide. In particular, this is Italy, which attracts millions of tourists every year thanks to its archaeological sites, famous museums and unique gastronomic traditions. The Roman Colosseum, the Uffizi Galleries in Florence, and the Venice Canals have not only become symbols of the country but also potent sources of tourism revenue [25]. France also demonstrates the effective use of cultural heritage in tourism, successfully combining visits to world-famous monuments, such as the Palace of Versailles or Notre Dame Cathedral, with festivals that promote traditional culture. Ukraine has great potential in this area, boasting sites such as the Kyiv Pechersk Lavra, St Sophia of Kyiv, and the wooden churches of the Carpathian region, which, together with intangible heritage, including folk crafts, songs, and rituals, offer great opportunities for developing the tourism industry and attracting foreign visitors [26].

In this context, it is essential to introduce the principles of sustainable tourism, which allow for a harmonious combination of meeting the needs of tourists with the protection and maintenance of cultural heritage for future generations. Sustainable tourism development, as defined by the World Tourism Organisation (UNWTO), involves a form of tourism activity that is based on the rational management of resources, taking into account the economic, social and cultural needs of society while ensuring the preservation of unique natural and cultural sites for future generations [27]. The primary goal of the organisational approach we propose lies in developing a balanced model that meets the current needs of tourists and local communities while ensuring the preservation of cultural heritage in the given territory [28]. We identify that, in order for cultural heritage to ensure an adequate level of sustainable development in cultural tourism, it is necessary to create a comprehensive strategy that considers the unique features of each region, including its historical aspects and, most importantly, its cultural heritage sites [29]. This strategy should guarantee the preservation and integrity of cultural heritage and stimulate sustainable tourism development, specifically within the framework of managing tourist destinations (Figure 1).

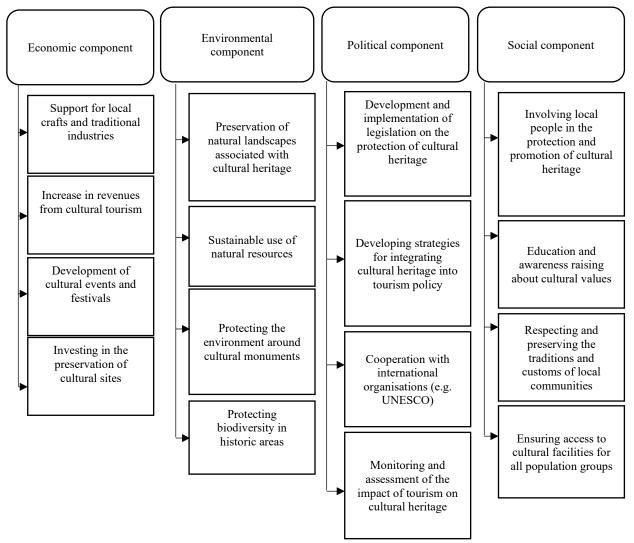


Figure 1. Scheme of processes to support sustainable tourism based on cultural heritage Source: constructed by the author

In the proposed organisational model, all its key elements interact closely, forming a unified, integrated system that facilitates the sustainability of the tourism sector and enables a comprehensive analysis of the key factors driving its development [30]. The defined approach allows for consideration of the multifaceted nature of regional characteristics, adapting tourism activities to the unique features of each specific region while ensuring the preservation of its cultural authenticity and ecological value. The developed model will include managerial flexibility and an adaptive component to enable the effective development of strategies that account for the specifics of cultural assets and resources of a particular geographic region, as well as dynamic changes in market conditions, individual demands, and tourism preferences (Figure 2).

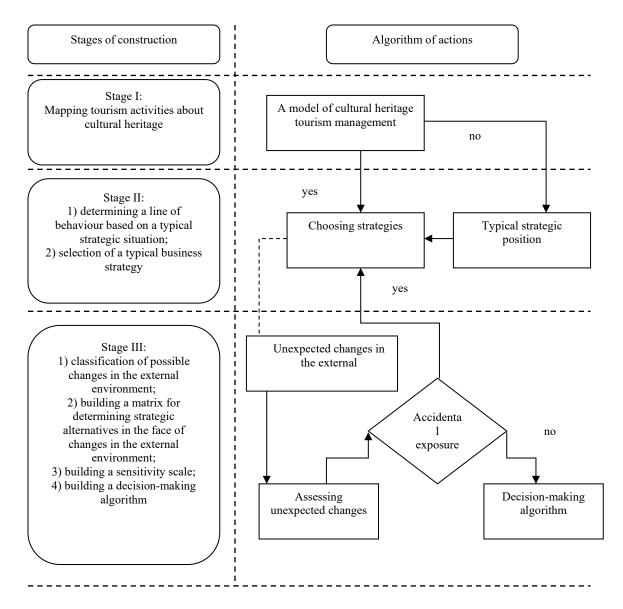


Figure 2. A level model for choosing a cultural heritage management strategy for tourism business development Source: constructed by the author

The model we have developed is based on strategic management principles. It allows not only the identification and systematisation of potential changes in the external environment but also the ability to respond promptly to challenges associated with the preservation and effective use of cultural heritage as a key resource for the development of cultural tourism. At the same time, traditional approaches to strategic positioning in the tourism sector often prove insufficiently effective for several reasons.

First, the modern tourism business is expected to focus on rapidly providing high-quality services, compelling tourism companies to adapt their market strategies flexibly to meet client expectations. Additionally, establishing long-term relationships with clients will require tourism companies to ensure real-time availability of their services, which includes round-the-clock accessibility regardless of tourists' geographical location and guaranteed access to cultural heritage sites that generate corresponding demand [31, 32].

It is also noted that one of the factors directly influencing the development of cultural tourism is tourists' motivation, which plays a leading role in selecting cultural heritage sites for visitation. However, to maximise the satisfaction of

this demand, numerous limitations and factors must be considered, including the accessibility and attractiveness of specific tourist sites.

The formation of demand for cultural tourism is closely tied to motivational factors that stimulate tourists' interest in well-known or popular cultural and historical heritage sites [2]. Nevertheless, meeting this type of demand depends on the ability of such destinations and their existing infrastructure to provide an adequate level of service in line with tourist expectations. This also relies on tourists' sufficient free time and financial resources to cover such trip costs [33].

We propose to express the demand for travel to a cultural heritage tourist destination that has a cultural heritage site mathematically, taking into account several factors:

$$S_{ij}^{k} = M_{jk}^{b} \times T_{jk}^{b} \times D_{jk}^{b} \times B_{ij}^{k}, \qquad (1)$$

Where:

 S_{ij}^k - is the demand for *a b-trip* to the *jth* cultural heritage site in the *k-th* period for the i-th tourist;

 M_{ik}^{b} - is the motivation to make *a b-trip* to the *jth* cultural heritage site in the *kth* period for the *i-th* tourist;

 T_{jk}^{b} - is the available free time of *the i-th* tourist to make *b-trips* to the *j-th* cultural heritage site in the *k-th* period;

 D_{jk}^{b} - is the financial capacity of *the i-th* tourist sufficient to make *b-trips* to the *j-th* cultural heritage site in the *k-th* period;

 B_{ij}^k - is the capacity of *the* jth destination to meet the needs of *the i-th* tourist during *b-trips* in the *k-th* period.

The factor of availability of financial resources for tourists also plays an important role, as its value depends on various aspects, such as forms and methods of remuneration of travellers, the overall level of socio-economic development of the country of residence, as well as the state of tourism infrastructure and the political situation in the chosen destination (Appendix A) [34].

A multiple linear regression model was applied to assess the impact of key factors on the demand for travel to cultural attractions in Ukraine. The model describes the dependence of demand (S_{ij}^k) on motivation (M_{jk}^b), available time (T_{jk}^b), financial capabilities (D_{jk}^b) and destination opportunities (B_{ij}^k):

The model can take the form of a multiple linear regression:

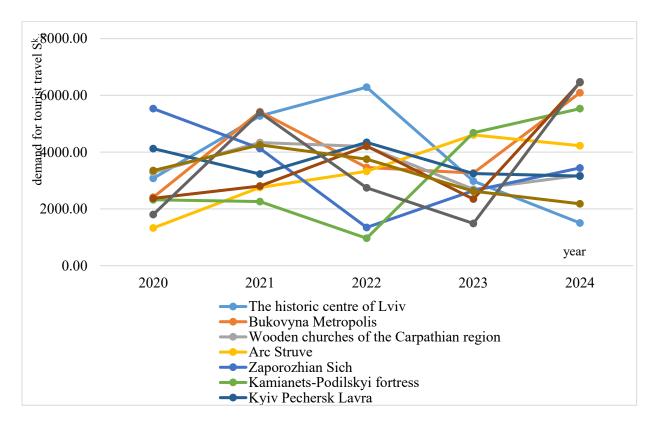
$$S_{ij}^{k} = \beta_{0} + \beta_{1}M_{jk}^{b} + \beta_{2}T_{jk}^{b} + \beta_{3}D_{jk}^{b} + \beta_{4}B_{ij}^{k} + \epsilon$$
⁽²⁾

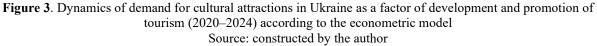
The model showed a high level of explanatory power ($R_2 = 0.941$), which indicates that travel demand (S_{ij}^k) is well explained by factors such as motivation (M_{jk}^b), available time (T_{jk}^b), financial capabilities (D_{jk}^b), and destination opportunities (B_{ij}^k).

The model is relevant to the study because it considers the multifaceted impact of economic, social and infrastructural factors that shape the demand for travel to cultural heritage sites. Its application allows us to focus on three key aspects:

identifying the most influential factors that affect tourists' decisions to visit specific destinations, assessing their significance in terms of optimising tourism strategies and developing recommendations that will contribute to the preservation and promotion of cultural heritage as an important resource for stimulating tourism development [35].

The coefficient β_1 = 3548.82 indicates that motivation is among the most important factors influencing demand. This indicates the need for large-scale measures to promote cultural heritage, in particular through advertising campaigns, educational projects and interactive approaches that can significantly increase the interest of potential tourists. The value of the coefficient β_2 = 361.83 demonstrates that creating conditions for the efficient use of time by tourists can significantly increase demand, improving logistics, booking and travel planning processes, providing convenience and time savings for visitors. The coefficient β_3 = 4.83 shows that demand increases even with a slight increase in the financial capacity of tourists. The coefficient β_4 = 5106.44 indicates that the level of infrastructure development and service quality in destinations significantly impact demand (Figure 3). The modelling results demonstrate that cultural heritage has significant potential to stimulate sustainable tourism development. The application of the econometric model made it possible to quantify the impact of the main factors on the formation of demand in the field of cultural tourism, which was an important step towards understanding key trends and developing effective strategies.





The results are a valuable tool for strategic planning, as they allow for informed management decisions to preserve cultural heritage and integrate it into modern tourism activities. Implementing such decisions will not only increase tourist activity but also ensure sustainable economic growth in the regions and help preserve Ukraine's unique cultural authenticity, which is an important component of its national identity and positive international image.

Discussion

The study's results convincingly show that cultural heritage is one of the key resources for the development of the tourism industry. However, its practical use requires careful balancing between its preservation needs, achieving economic benefits and meeting the expectations of tourists. A comparison of the results with previous studies [5, 8] suggests that the conclusions about the importance of motivational factors and the development of destination infrastructure are consistent with established scientific concepts. This study's uniqueness lies in the use of econometric modelling, which allowed us to quantify the impact of key factors on demand generation, which created the conditions for a more detailed analysis. In particular, the findings on the importance of tourist motivation ($\beta_1 = 3548.82$) confirm the results of Gupta and Tiwari [20], which emphasise the need to attract tourists through the implementation of innovative marketing strategies, and the capabilities of destinations ($\beta_4 = 5106.44$) have the most significant impact on demand generation, which in turn proves the importance of introducing innovative approaches aimed at promoting cultural heritage. At the same time, the low level of influence of tourists' financial capabilities ($\beta_3 = 4.83$) recorded in this study partially contradicts the findings of Loulanski [22], which states that affordability is a key barrier for many visitors. Additionally, it was found that available time ($\beta_2 = 361.83$) is a significant factor that can be enhanced by improving logistics, creating convenient conditions for travel planning and simplifying access to heritage sites. Such a discrepancy in results may be explained by the specifics of the Ukrainian tourism market, where interest in cultural heritage remains relatively stable, regardless of income level.

The study's main novelty is creating an integrated model that considers cultural, economic, and social aspects, forming a comprehensive approach to managing tourist flows. The data obtained are of theoretical and applied importance, as they serve as a basis for formulating specific recommendations to promote heritage sites.

Improving transport accessibility, modernising hotel infrastructure, introducing digital booking services, and creating information centres are important to boost the capacity of destinations. Such measures will help increase the region's competitiveness and ensure an increase in tourist flows. The practical significance of this study lies in developing effective management solutions that ensure the sustainable development of tourism in Ukraine. The proposed model can be successfully adapted for use in countries with similar tourism market characteristics, ensuring the preservation of cultural heritage and its integration into modern tourism practices. The development of a strategic model of sustainable tourism development based on the effective use of cultural heritage contributes to the combination of economic, social, environmental and cultural components in a single management system.

Conclusion

As a multifaceted resource, cultural heritage plays an important role in developing the tourism industry, contributing to its diversity and sustainability. The conducted research confirms that tangible heritage and intangible and natural heritage are not only a reflection of national identity but also serve as fundamental components for creating tourism products. The study has confirmed that the rational use of tangible, intangible and natural heritage not only contributes to the growth of tourism activity, but also ensures the preservation of unique cultural heritage for future generations. The analysis of the obtained results of econometric modelling indicates that among the key factors determining the demand for visiting cultural heritage sites, a significant role is played by components such as tourist motivation, availability of time, financial resources, and the level of infrastructure development in individual tourist destinations. The calculations substantiated the high significance of motivational components and the potential of tourist destinations, emphasising the necessity of developing and implementing comprehensive strategies for promoting cultural heritage sites within sustainable cultural tourism development. It was identified that a promising direction for such innovations involves integrating modern digital technologies, particularly creating interactive mobile applications and virtual tours, which provide users with detailed information about cultural heritage sites in a convenient and accessible format. Such practices facilitate access to cultural resources and stimulate tourists' interest through the interactive and informative nature of digital tools. Thematic festivals, creative workshops, and modern multimedia presentations can significantly enhance tourist engagement, offering them a unique opportunity to immerse themselves in the authentic culture of specific regions. These organisational initiatives contribute to forming a strong emotional connection between tourists and heritage sites, which is a key factor in encouraging repeat visits and expanding the tourist audience. This approach ensures the balanced development of the tourism industry, preservation of the cultural identity of the regions, stimulation of economic growth and enhancement of the country's international image.

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Appendix A

Estimated Parameters of the Econometric Model of Formation of Demand for Cultural Monuments of Ukraine as a Factor of Development and Promotion of Tourism

A cultural landmark	Year	Motivation () M^b_{jk}	Available time () T^b_{jk}	Financial opportunities () D^b_{jk}	Destination features () B_{ij}^k	Demand () S^k_{ij}
Kyiv Pechersk Lavra	2020	0,76	9,15	911,24	0,65	4122,61
	2021	0,83	11,99	616,29	0,52	3228,09
	2022	0,75	10,74	868,33	0,62	4343,58
	2023	0,97	5,75	775,51	0,75	3243,19
	2024	0,72	8,08	570,67	0,94	3157,25
	2020	0,94	7,36	513,24	0,51	1802,76
	2021	0,72	13,71	689,37	0,79	5391,12
Hagia Sophia	2022	0,85	6,29	874,18	0,59	2745,79
Cathedral	2023	0,81	5,43	366,84	0,92	1488,41
	2024	0,78	14,58	771,73	0,74	6477,91
	2020	0,81	12,11	437,22	0,72	3079,16
	2021	0,77	9,92	724,43	0,95	5278,07
The historic centre	2022	0,93	10,43	716,23	0,90	6288,26
of Lviv	2023	0,85	6,87	611,95	0,83	2983,36
	2024	0,71	9,58	411,05	0,54	1505,28
	2020	0,93	9,35	675,27	0,56	3284,02
Wooden churches	2021	0,96	10,30	692,03	0,63	4337,29
of the Carpathian	2022	0,76	10,02	974,69	0,56	4200,95
region	2023	0,78	14,78	441,86	0,53	2690,97
	2024	0,92	5,75	709,96	0,85	3181,96
Arc Struve	2020	0,73	6,71	466,96	0,58	1328,05
	2021	0,94	14,02	344,71	0,60	2753,60
	2022	0,84	13,04	533,04	0,57	3322,97
	2023	1,00	9,77	670,31	0,70	4606,62
	2024	0,96	8,92	829,24	0,59	4229,44
	2020	0,93	6,31	692,09	0,83	3354,74
Chersonesos	2021	0,96	8,86	839,29	0,60	4256,51
Tavriya	2022	0,90	10,27	563,23	0,72	3750,59
	2023	0,97	6,40	566,47	0,75	2624,42

	2024	0,72	9,42	621,37	0,52	2179,27
Bukovyna Metropolis	2020	0,70	5,98	680,04	0,84	2410,54
	2021	0,87	8,07	788,69	0,98	5426,60
	2022	0,74	12,29	716,08	0,53	3458,33
	2023	0,90	6,61	920,40	0,60	3261,60
	2024	0,95	9,95	758,72	0,85	6093,50
Kamianets- Podilskyi fortress	2020	0,98	5,82	500,52	0,82	2322,07
	2021	0,80	10,66	414,60	0,64	2259,93
	2022	0,78	6,11	329,89	0,61	965,80
	2023	0,82	6,58	885,79	0,98	4680,87
	2024	0,82	12,00	732,68	0,76	5532,51
Zaporozhian Sich	2020	0,72	14,41	922,26	0,58	5532,58
	2021	0,83	7,44	923,34	0,72	4132,12
	2022	0,72	8,09	321,42	0,72	1346,76
	2023	0,73	8,88	455,10	0,89	2641,46
	2024	0,80	12,39	485,19	0,72	3442,68
Museum of the Battle of Poltava	2020	0,74	7,42	728,94	0,59	2374,59
	2021	0,83	6,90	952,57	0,51	2805,29
	2022	0,95	6,01	919,28	0,80	4217,84
	2023	0,97	5,49	687,65	0,64	2347,84
	2024	0,99	14,67	486,30	0,91	6454,19