



## **PRIORITIZATION OF MUSEUMS IN TERMS OF PERFORMANCE IN ATTRACTING TOURISTS (CASE STUDY: MUSEUM OF NORTH OF SISTAN AND BALUCHESTAN PROVINCE)**

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### **ABSTRACT**

*Interaction with great cultures and civilizations of ancient times up to now, have enabled Iran to provide the most brilliant science and technology at some points of time to the humanity. In the meantime, Sistan and Baluchestan civilization has a history of several thousands of years, but no effort worthy of this glory have been done to introduce and identify its remained works. Given that the role, development and management of museums have changed greatly in the last two decades, museum institutions, increasingly is being visitor-centered. The aim of this study is to prioritize museums of north of Sistan and Baluchistan province in terms of performance in attracting tourists in the region. The research methods is descriptive – analytical, and data collection has been done through field survey and questionnaire completion, i.e. 350 questionnaires have been completed to assess the Grand Museum of Zahedan, Museum of Zahedan Post-Office, Museum of Zabol Burnt-City (Shahr-e Sukhte) and Anthropology Museum of Zabol. The results of TOPSIS model indicates that the Grand Museum of Zahedan with a score of 0.709 stands in the first place and the Museum of Zahedan Post-Office with 0.235 places at the last of ranking in terms of performance in attracting tourists.*

**Keywords:** Museum of Burnt-City (Shahr-e Sukhte), Tourism, Sistan and Baluchestan Museums.

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### **1. INTRODUCTION**

To create a stable and suitable development in tourism industry, an efficient and consistent management besides a harmony between public and private sector is of great importance.

The human's desire for immortality, survival and proving identity to others in an intellectual issue. Throughout history, man has always tried to record and offer his common shared values and civilization to the world by his artistic and architectural works (Nafisi, 2001).

So, not only is container architecture a series of performances, but also involves the values of a civilization besides being culture-based. In most traditional societies, there are some groups of special buildings where the collective values and beliefs of human groups are preserved, and generally carry out the main task of transferring these values. The main duty of such buildings have been to maintain and promote that civilization's common values. Integrating with people's common and religious affairs, they generally have been places to foster the reality-seeking spirit and nature of human, and carry out the functions of human relationship with supernatural existence and realizing the hidden truths lied in the universe (Akbarian and Yazdanfar, 2015).

Human, put their past and present in the museum on loan, to regularly refer to it and to think about their future. Along with the changes in time, Science of museum have new and different approaches to the past, In order

to protect cultural and natural heritage. And according to the characteristics of the architecture, social sciences and the environment has been integrated (Ashraf, 2011). Museums, like libraries are repositories of knowledge and information. . Information resources in libraries, often are books, journals and printed materials. Whereas, sources of information on museums, are objects. Museum objects such as library materials, in terms of education and research, contains valuable information that they access and use is important (Zandi and Alvankar, 2013). The first museum of public and protection of objects of cultural heritage is established, is the national museum, which is said to have its place in the academy And later transferred to Masoodieh building. By making the Ancient Iran Museum in 1937, this museum was moved to that location, in recent years the museum in the open air or in Gilan Rural Museum was opened in 2007. Museums for all those who are interested in history or a particular topic, are of paramount importance. Today, museums diverse as railway museum, art museum, and museum crafts, ethnography, coins, plants, stamps and so on and contemplate his enthusiasts. For this reason, in every part of the world you are, you can go to your favourite museum, both fun and useful information you can get. You should not be unaware of the importance of museums to attract tourists. . This is why today museums are one of the main places that tourists visit them in their travel plans. However, it is also necessary to mention that, not all the museums have been interesting for all of the people and they will not make them satisfied. Iran has a different civilization in four aspects of geographical areas, is Suitable for the development of cultural tourism attraction for centuries. Beside the cradle of great civilizations, Sistan-Baluchestan province in southeaster of Iran has the Iranian origin in 5000 years old civilization, And many of the most valuable and oldest archaeological findings in Iran is related to the land. However, until a few years ago, no museum in the province was a good standard that tells a small part of this great civilization. The importance of the tourism industry and cultural richness of the Sistan region, the importance of historical tourism, makes the Economic development in the minds fertile to advance national goals, as well as local and regional economic development. Regarding the regional priorities in terms of economic, social and cultural and historical monuments valuing the people of Sistan is the result of thousands of years before Christ, so this study seeks to prioritize museum north of Sistan-Baluchistan province in terms of the tourist attractions in the area.

## 2. RESEARCH BACKGROUND

- Asadollah Zia in his master's thesis in 2014, paid to the role and ability of museums to attract tourists, And the development of tourism in the city of Tabriz, has examined Tabriz museums, and Came to the conclusion that, Museums of Tabriz potentially have an important role in attracting tourists and urban development.
- Mahmoodian, Habibollah 2015 in the book "Introduction to museums and museum" has paid to this topic that: The museum based on the people of the West is a place for Tank oldies and Precious objects. Of every gift and souvenir where the reservoir is, People of knowledge will benefit. The circumstances and conditions at any time, its industries and professions, typical customs and traditions of those days and habits of tribes will be aware, Unsolvable problems here are solved and brought witnesses to provide historical information. Unsolvable problems here are solved and brought witnesses to provide historical information.
- Hein (1995) in an article entitled "The assessment of teaching and learning at the Museum, introduced Museums as educational institutions (Hein, 1995).
- Caroline *et al.* (2002) in a project by name of The investigating effects of museums, archives and libraries" Project Evidence", This report provide a critical review and assessment of the impact of museums, archives and libraries. Caroline *et al.* (2002)
- Guðbrandur (2004) in an article entitled "Museums and Tourism" deals with the relationship between the museum and tourism. Compare that with some of the basic elements in the museum on the one hand and Tourism on the other hand has examined this relationship.

### 3. THE POSITION OF THE STUDY AREA

Sistan and Baluchistan with 178,431 square kilometers, has taken 10.9 percent of the country. This province Located in the southeast of the country, From the North to the South Khorasan province, by Kerman and Hormozgan in the West, From East is bordered by Afghanistan and Pakistan, from the south is limited to Oman Sea. This city has been located as an important center of population of the country at an altitude of 1370 meters above sea level and at 60 degrees, 53 minutes in east longitude and 28 degrees, 58 minutes in north latitude.

### 4. METHODS

The research was descriptive-analytic method that studies based on data collected documentary and by survey which it is used in combination, to explain the scope of the study, a questionnaire was used observation techniques. The research data were collected from four population, The tourists museums posts, Communications, Museum Zahedan, Burnt City Museum, and Sistan Anthropology. According to the Cultural Heritage and Tourism Organization of Sistan and Baluchestan, Total visitors of the museum under study were 39666 subjects. According to Cochran Sample size due to the volume of visitors to 350 persons obtained. In order for the great museums of the city of people have been selected for each of them. To prioritize museums decision, the multivariate TOPSIS model was used. (Table4-1).

Table-4.1. Indicators and parameters of the study

Index	Component
Infrastructure	Appropriate facilities, of museums (prayer room, coffee shops, water coolers, toilets, etc.)
	Proper lighting inside the museum encourages visitors to see the objects with more attention.
	Suitable heating and cooling system in the museum Viewed would make better visits.
	Proper alignment of objects and paintings at the Museum makes views better.
	Parks and green spaces right next to the museum will increase visits.
Legal and administrative	Considering museum by the authorities can be effective in attracting tourists.
	Covering of a shapely figure and museum staff is effective in attracting tourists.
	Reasonable working hours affect museums attracting visitors.
	Museums assignment to the private sector can be effective in increasing tourists.
	Setting up an SMS system to welcome and introducing, will increase museum tourism.
	Use of experienced experts
Sociocultural	The basic information of each individual of museums encourage more visitors to visit.
	Museums and monuments and tourism information in the form of brochures and CD manual.
	Exhibitions in museums will increase tourism.
	Museum help the culture and customs of each province
	Media can help boost tourism by making museums better
	Provincial Customs Enforcement alive alongside will attract museums visitors.
Geographic	Culture of hospitality and welcome and proper treatment is effective in attracting visitors and museum staff.
	Music and video playback provincial museum has an impact in attracting visitors.
	Being in the right place in the museum and its availability will increase visitors.
	Launch site museum can be effective in attracting tourists
	The introduction of appropriate objects and paintings is effective in educating visitors
Economic	Museums and archaeological sites under construction by the presence of tourists.
	The use of traditional buildings as a museum in attracting tourists is effective.
	Food shops next to the museum will increase visitors.
	Sale symbols Stock province like (cup animation, artificial eyes, pottery Kalporgan)
	Native foods and local Sale province adjacent to the museum will increase tourism
The Museum for the modern is likely to attract visitors.	
Craft sales in the Museum of the province in tourism increasing is effective.	

Source: The results

## 5. MUSEUMS PERFORMANCE EVALUATION USING DECISION MODEL TOPSIS

### 5.1. Converter Qualitative to Quantitative Measures

We can use different methods, qualitative indices turned to quantitative measures, however, best practices, are the methods that use distance-and rating scales or scale bipolar alternative. A general method for measuring a quantitative index to measure distance, is using the bipolar distance scale. Which is as follows:

This measurement, is based on an eleven-point-scale, which Zero, is the lowest value and 10 is the maximum value. It should be noted that values such as 2, 6.4, 8, are intermediate value between two other values. Values less than zero and ten are used. This measurement is done with these three assumptions:

As an example, the distance between the very low, and low is high and very.

It is assumed that a score of 9, is three times higher than the score of 3.

The combination of values for the various indices are permitted, the difference between the two sports, assumed for each index, the same. These three assumptions, convert the ordinal scale to interval. (Table 5-1)

Table-5.1. Quantitative matrix, measurement of decision-making

Efficiency to Compare	Average				
	Grand Zahedan	Museum	Post Zahedan	Anthropology Zabul	burnt City
C1 = infrastructure	5		5	5	7
C2 = Management and Law	5		7	5	5
C3 = Cultural and Social	5		7	5	5
C4 = Geographic	5		3	5	7
C5 = Economy	3		3	3	5

Source: The results

In this regard, the 5 indices evaluating Museums, The combination of the indicators examined in this study as an important loss. Based on the current situation, these factors point to the notion. According to the scale of 1 indicates the lowest and 9 the highest. We were slightly transformed their quality score to quantities. That in the table (5- 2) is given:

### 5.2. Without the Scaling

After making the quantitative indicators, without the scaling process must be measured in order to compare the different scales, the amount by which different indices are dimensionless and additive. In this part of the without scaling, we use the rate. In this type of the scaling, each element of the decision matrix, we divide the square sum of the squares of each row available in the quantitative table. In this way, all rows decision matrix will have similar units, And We can easily compare them with each other. According to the principle of brevity in this example, we have expressed one of the things.

$$n_{ij} = \frac{5}{\sqrt{(5^2 + 5^2 + 5^2 + 7^2)}} = 0.201 \quad n_{ij} = \frac{a_{ij}}{\sqrt{\sum_{i=1}^m a_{ij}^2}}$$

Table-5.2. without the scaling use Norm

Museum	C1	C2	C3	C4	C5
Great Museum of Zahedan	0.201	0.201	0.201	0.231	0.288
Posts by Zahedan	0.201	0.228	0.228	0.138	0.288
Anthropological of Zabul	0.201	0.201	0.201	0.231	0.288
burnt City	0.228	0.201	0.201	0.324	0.480

Source: The results

5.3. Evaluation of Indices Weights (Weighting in Indices)

The problem may have several indicators, therefore, knowing the relative importance of indices is necessary. Therefore, for any given weight. If the total weight have equal to indices. There are different methods to assess the weight of the indicators that we have chosen in this case, Shannon entropy method. When the data have a decision matrix to fully specified, the above method can be used. The idea of this method is that the distribution of the values of an index, that index is important. In this regard, the first element is more pij. To calculate the entropy of each row divided by the sum of our decisions.

Equation (2):

$$P_{ij} = \frac{1}{n} \rightarrow \frac{5}{22} = 0/227 \quad P_{ij} = \frac{a_{ij}}{\sum_{i=1}^m a_{ij}}$$

Table-5.3. pij obtained

Museum	C1	C2	C3	C4	C5
Great Museum of Zahedan	0.227	0.227	0.227	0.25	0.214
Posts by Zahedan	0.227	0.318	0.318	0.15	0.214
Anthropological Zabul	0.227	0.227	0.227	0.25	0.214
burnt City	0.318	0.227	0.227	0.35	0.357

Source: The results

In this formula k as the value is calculated as follows: In this formula, m is the number of sample areas or options studied,

$$k = \frac{1}{\ln(4)} = 0/721 \quad k = \frac{1}{\ln(m)}$$

After obtaining entropy coefficient (k), j of the entropy index is calculated as follows:

$$E_j = -K \sum_{i=1}^m (P_{ij} \ln P_{ij}) \quad (4):$$

$$E_j = -0/721((0/227\ln(0/227) + (0/227\ln(0/227) + (0/227\ln(0/227) + (0.318\ln(0.318) = 0/991$$

To obtain dj, we use the formula:

$$d_j = 1 - 0.991 = 0/009 \quad (5):$$

$$d_j = 1 - E_j$$

Then the weight value WI can be obtained as follows,

$$W_j = \frac{d_i}{\sum d_i} = \frac{0.009}{0.078} = -0.115 \quad (6):$$

Table-5.4. Index weights

	C1	C2	C3	C4	C5
Ej	0.991	0.991	0.991	0.970	0.979
dij	0.009	0.009	0.009	0.030	0.021
Wi	0.115	0.115	0.115	0.384	0.269

Source: The results

$$\begin{pmatrix} 0.11 & & & & \\ & 0.115 & & & \\ & & 0.11 & & \\ & & & 0.384 & \\ & & & & 0.269 \end{pmatrix}$$

The matrix can be achieved without scaled weighted. For this purpose, the matrix of scale, multiplied by the square matrix  $W_{n \times n}$ ) which the main element of it, are the weighting factors and other elements are zero. The resulting matrix named Matrix of weighted scale, and with V it will be shown.

(7):  $V = N \times W_{n \times n}$

Table-5.5. of the without scaled matrix N

Museum	C1	C2	C3	C4	C5
Great Museum of Zahedan	0.201	0.201	0.201	0.231	0.288
Zahedan post	0.201	0.228	0.228	0.138	0.288
Anthropological Zabul	0.201	0.201	0.201	0.231	0.288
burnt City	0.228	0.201	0.201	0.324	0.480

Source: The results

**5.4. Determine the Positive Ideal Solution and Negative Ideal Solution**

Positive ideal solution and negative ideal solution, as defined below are the:

]Vector best values of each parameter matrix  $V^+$ ] = positive ideal solution ( $\neg + VJ$ )

]Vector worst values for each parameter matrix  $V^-$ ] = negative ideal solution ( $- VJ$ )

Table-5.6. of the without scale weighted matrix V

Museum	C1	C2	C3	C4	C5
Great Museum of Zahedan	0.023	0.023	0.023	0.26	0.033
Posts by Zahedan	0.023	0.026	0.026	0.052	0.033
Anthropology Zabul	0.023	0.023	0.023	0.088	0.110
burnt City	0.061	0.054	0.054	0.062	0.077

Source: The results

The best value for the index is positive, the negative values for the index, is the smallest, And worst of positive indicators, the smallest value and the greatest value for the index is negative. Each option has the ideal amount of positive and negative. To obtain the distance from the ideal option for both positive and negative, the following formula is used.

(8):

$$d_i^+ = \sqrt{\sum_{j=1}^m (v_{ij} - v_j^+)^2}, \forall_i$$

The distance from ideal positive

$$d_i^- = \sqrt{\sum_{j=1}^m (v_{ij}^- - v_i^-)^2}, \forall_i$$

The distance from ideal negative

The values for the above matrix, to be calculated as follows,

$$d_{i1}^+ = \sqrt{((0.023 - 0.061)^2 + (0.023 - 0.054)^2 + (0.023 - 0.054)^2 + (0.026 - 0.088)^2 + (0.023 - 0.110)^2)} = 0.128$$

$$d_{i1}^- = \sqrt{((0.023 - 0.023)^2 + (0.026 - 0.023)^2 + (0.026 - 0.023)^2 + (0.056 - 0.026)^2 + (0.033 - 0.0033)^2)} = 0.300$$

In the TOPSIS, ideal vector is positive and negative ideal vector, the model R, are status quo or take the status quo, The R-value, which are ideal situation from both positive and negative and are calculated through formula:

$$CL_1 = \frac{d_j^-}{d_j^- + d_j^+}$$

The obtained values between zero and one

$$(\leq 1 \ R \leq 0)$$

The R-value, the status quo is to zero, indicating a tendency toward undesirable status quo, and on the opposite side of the R-1 tend to show willingness status quo is desirable. In other words, each option that its CL is larger, is closer to the ideal situation. The calculated values in the model, Positive and negative ideal in connection with the performance of museums is as follows:

Positive ideal vector

Negative ideal vector

Performance audits the four areas studied, obtained by the formula:

(9):

$$CL_1 = \frac{d_j^-}{d_j^- + d_j^+}$$

$$CL_1 = \frac{0.300}{0.300 + 0.123} = 0.709 \quad \text{Grand Museum}$$

Zahedan

CL value between zero and one, the higher this value is close to a solution, the solution is ideal, and have Better performance. As the results show that, 1 is the status quo of Zahedan's Grand Museum. It is important that the expression of these indices is reviewed in good condition. The important in part is suitable Zabul Museum of Anthropology. The Museum of Burnt City and Post of Zahedan do not have good condition compared to other museums. According to the following formula results achieved clearly expressed in the following:

$$\leq 1 \ R \ (0 \leq)$$

Table-5.7. Final ranking state museums

Row	Museum	Priority factor	The Entitlement
1	Grand Museum of Zahedan	0/709	Favorable
2	Post of Zahedan	0/235	Undesirable
3	Anthropology Zabul	0/571	Mostly good
4	burnt City	0/450	Undesirable

Source: The results

## 6. CONCLUSION

All the proposed museum in tourist countries, with its tourist capacity Began organizing stores, In order to supply all kinds of cultural products for different age groups. In addition to this, with temporary exhibitions, restaurant, coffee shop and visitors seeking more hours spent at the museum. Given that the largest share of the development of tourism attractions and activities that depend on the natural environment, historical heritage and cultural patterns of tourism-related areas, and also According to a set of ideas and views expressed by visitors, As well as the author's analysis of the current status of the museum-in the north of Sistan and Baluchestan, Also implies that museums can play an important role in attracting tourists to their area. The findings of TOPSIS indicate that great museum of Zahedan by a factor of 0.709 have ideal conditions than other museums. Museum of Anthropology Zabul with a score of 0.571 in the second, Museum of Burnt City in third place with 0.450, and Museum of Zahedan post by a factor of 0.235, didn't have suitable situation.

## 7. SUGGESTIONS

- ✓ Development and providing access routes, installation of signs, using information from camps in the input paths museums.
- ✓ Creating low-cost accommodation and guest houses around the museum in order to encourage visitors to stay longer in the region.
- ✓ Creating markets for handicrafts and cultural products on the grounds of the museum on the day of the week, Local festivals and local music concerts to introduce the culture of the region, In order to attract tourists and residents in the area and exploitation of other historical and cultural attractions, In order to further the development of cultural tourism.
- ✓ Use of experienced and expert in connection with important responsibilities, such as manuals and other relevant sites related to present and introduce the museum to visitors
- ✓ The use of new methods of communication such as web design, preparation of brochures, CDs, etc.
- ✓ Access to amenities and the comfort of local museums including the Museum of Burnt City.
- ✓ Provide visiting students with their understanding of museums and historical places and natural Region.
- ✓ Despite the historic attractions in the tourist district of the city burned, there are barriers to entrance tourists, Lack of facilities and tourism facilities, Lack of appropriate locations for facilities and buffet for the necessities, Lack of supermarkets and parks, not enough space for family travel to the healthy family and tourists place, has established limits.

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