Assessment of Tourism Potential: A Case study of Alwar District, Rajasthan

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Abstract - Tourism has significant contribution in sustainable development, economic upliftment and social benefits, if planned methodically. Since the last decade it has become a major thrust area in India to address the aforesaid issues and to utilize its wide variety of destination resources. Alwar is one of the most important cities of Northern Rajasthan. It is situated at approximate distance of 160 km south of Delhi, and about 150 km north of Jaipur, the capital of Rajasthan. Alwar is part of National Capital Region (NCR). The present study aims to identify various determinants of tourism potential of the Alwar district. The secondary data as well as personal interview was conducted from the tourist visited to Alwar. Hence, for achieving an optimized solution in this regard, the methodology is formulated based on “Weighted Sum Model (WSM)”, a popular multi-criteria decision making tool which incorporates ranking and scaling techniques for quantifying various attributes. The methodology has been applied to Alwar district of Rajasthan state, a district predominantly characterized by remarkable heritage precincts of various ruling dynasties and a few nature-based tourist spots. WSM is used to calculate the potential values of each tourist site which later gave a total potential value of all the tourist sites. Through qualitative and quantitative analysis techniques issues and outcomes have been taken out. A tourist circuit is proposed for the district which is also been connected with the existing Golden Triangle tourist circuit, to increase the potential of tourist and tourism sector in Alwar.

Key Words: Heritage tourism, Multi-Criteria Decision Model, Alwar tourism, Tourism potential, Weighted Sum Method

I. INTRODUCTION

The world Tourism organization (WTO) defines tourism as “Travelling to and staying in places outside their environment for not more than one consecutive year for leisure, business and other purposes”. Tourism has become fastest growing industry and popular global free time activity, develops job opportunities to the local people. Tourism also increases the foreign exchange and increase the standard of living [1]. There is no much difference in tourism and travel; in general, both terms are used as synonyms [2]. Tourism is considered as an activity essential to the life of nations because of its direct effects on the social, cultural, educational and economic sectors of national societies and on their international relations [3]. Tourism boosts up economic activities through its multiplier effects and exploits local cultural and natural specialties in a positive way [4]. The Planning Commission of India has declared tourism as the second largest sector in the country in providing employment opportunities for low-skilled and semi-skilled workers. Domestic tourism contributes about 75% of tourism economy. Thus in 12th five-year plan (2012-2017) tourism has been marked as a dawn of new era for social integration and economic development [5]. In 2008, the sector contributed 200 billion US dollars which is expected to increase to 375.5 US dollars in 2018 at a 9.4% annual growth rate [6]. Today tourism is the largest service industry in India, with a contribution of 6.23% to the national GDP and providing 8.78% of the total employment. India witnesses more than 5 million annual foreign tourist arrivals and 562 million domestic tourism visits. By default, India possesses a large variety of tourist destinations, mostly nature-based and historical spots. Statistics shows a sharp rise of decadal tourist demand but it lacks adequate tourist infrastructure, coordination in different levels, tourism master plan, and flexible circuit planning. Development of adequate tourist infrastructure requires significant financial involvement and it should be optimized in Indian scenario due to financial constraints. Thus, prior to invest in tourism, a local government must know the condition of respective tourist resources, their attractiveness and levels of touristic demand. All these aspects are associated with the tourism potential of a region.

II. A GLIMSE OF LITERATURE REVIEW

Early Development

In the year 1945 the first conscious and organized efforts was made in India to promote tourism. A committee was setup by the government under the chairmanship of Sir John Sargent, the then educational adviser to the government of India. The sixth plan marked the beginning of a new era when tourism began to be considered a major instrument for social integration and economic development.

Present situation and features of tourism in India

Today tourism is the largest service industry in India, with a contribution of 6.23% to the national GDP and providing 8.78% of the total employment. India witnesses more than 5
million annual foreign tourist arrivals and 562 million domestic tourism visits.

The Tourism Industry in India generated about US$100 billion in 2008 and that is expected to increase to US$275.5 billion by 2018 at a 9.4% annual growth rate. The Ministry of Tourism is the nodal agency for the development and promotion of tourism in India and maintains the "Incredible India" campaign. According to World Travel and Tourism Council, India will be a tourism hotspot from 2009-2018, having the highest 10-year growth potential.

**Types of Tourism in India**

1.2 Case Study: Nashik City, Maharashtra

**Introduction**

The city of Nashik is situated in the State of Maharashtra, in the northwest of Maharashtra, between 19°54"40" North latitude to 20°05"08" North latitude and between 73°41"08" East longitudes to 73°54"22" East longitude. It is connected by road to Mumbai (185 kms.) and to Pune (220 kms). Nashik is regional center of northern Maharashtra and very famous for its grapes growing. The city has become the centre of attraction because of its beautiful surroundings and cool, pleasant climate. Nashik has a personality of its own due to its mythological, historical, social and cultural importance.

**Map 1: Location map of Nashik City**

Source: Ministry of Tourism, 2017

**Methodology**

Methodology is one of the important parts of analysis. Output or result of analysis highly depends on the methodology will be used for the data processing or analysis purpose. The following methodology will be adopted:

**Step -1** Primary data will be collected; exhaustive literature survey of the topic of investigation is to be undertaken. Published literature, reports will be collected from various libraries, Institutes and government departments etc. Besides this relevant literature wills also reference books, bulletins, reviews will also be etc.by obtained through Internet.

**Step -II** various places were identified which having determinates of tourism potential of the Nashik city. Like as accessibility, health facilities, road, and infrastructure facilities, other entertainment facility, with the help of health facility, education facility, and entertainment facilities etc. tourism potential of Nashik city was assessed.

**Conclusion**

Nashik city like other major cities of Maharashtra, hosts many industrial giants like Mico, Gabriel, M&M, Ceat etc. Nashik is also a good education centre with engineering, medical and management institutions. Moreover, Nashik is also famous for its grape and onion produce. Thus, the dependency on tourism for employment is not much, especially in Nashik city. Nashik will remain as peaceful,
clean, green and artistic cultural center apart from the busy industrial and tourism activity.

1.3 Case Study: Murshidabad District, West Bengal

Introduction

Murshidabad district is a district of West Bengal, in eastern India. Situated on the left bank of the river Ganges, the district is very fertile. Covering an area of 5,341 km² (2,062 sq. mi) and having a population 5.863m (according to 2001 census), it is a densely populated district and the ninth most populous in India (out of 640). Baharampur town is the headquarters of the district. It borders West Bengal’s Malda district to the north, Jharkhand’s Sahebganj district and Pakur district to the north-west, Birbhum to the west, Bardhaman to the south-west and Nadia district due south. The international border with Bangladesh Rajshahi Division is on the east.

Map 2: Location map of Murshidabad District

Methodology

The Weighted Sum Method (WSM) has been chosen in this study. The methodology is furnished here in five sequential steps.

Step 1: Level-1 Attributes and Weight (Wi) assignment

Three broad aspects namely physical, social and environmental have been considered as level-1 attributes in connection with assessing tourism potential. For district level or region based tourism considerations, there may be similar qualities or levels for a single parameter. Hence, depending upon the regional setting and cluster of tourist areas the weight values of each of the three aspects, mentioned above, may be assigned.

Step 2: Level-2 Attributes and Weight (wj) assignment

Each of level-1 aspect consists of set of variables those are considered as level-2 attributes. These sets are explained hereunder.

1) Physical (Wp) aspects include geographic terrain, regional connectivity and vehicular accessibility, bottlenecks in accessibility, versatility in accommodation system, guide and tourist information factors, local souvenirs, telecommunication systems, availability of quality and special foods, parking and other recreational facilities.

2) Social (Ws) factors include existing tourist influx (for existing tourist spots only), intensity of fairs and festivals, timing to visit a spot, duration of stay, compatibility of the spot with surrounding land use, safety and security for the visitors, probability of social crimes, behavioural aspects of the operators or service providers etc.

3) Environmental (We) aspects are probability of natural calamity during a specific time window, natural and anthropogenic threat, hazardous land use, quality of air and water and pollution etc.

Step 3: Intra-Attribute Scaling (sj)

Level of quality or service for each attribute may not be similar for all the spots. Depending upon variations in quality / quantity, each attribute is scaled in a 5-point or 3-point scaling as required. These scales are related to grades from 1-5 or 1-3 based on logical interpretation and quantification of various levels. Hence, the step 1 and 2 indicates a global approach to be used for all parameters and step 3 is a local approach based on different variations or ranges set logically. For scaling, 1 refers to the worst/weakest quality and 5 indicates the best/strongest quality. For computation, the lowest value is considered as 0.2 followed by 0.4, 0.6, 0.8 and the highest being 1. A proper scaling sets up a common platform for both quantitative and qualitative parameters.

Step 4: Computation of Aggregate Potential Value

Potential value of a tourist spot is finally aggregated in an additive way. The expression is as follows:

\[
V = V_{\text{Physical}} + V_{\text{Social}} + V_{\text{Environmental}}
\]
Step 5: Grouping of Spots and Analysis

List of tourist spots and respective potential values (in aggregate and distributed) are assessed. Hereinafter, the spots are clustered in groups based on proximity to provide common infrastructure as much as possible to optimize the resource. Potential of each group is measured from mean values of the spot values. This provides a clearer scenario for setting up proposals. In this step, new tourist spots or recreational spaces may be searched out and tagged with the group to enhance the probability for revenue generation.

Results of analysis and discussions

Potential values for a particular tourist spot indicates the level of attractiveness and this has been quantified previously. However, proposing detail strategies of development for each spot may be uneconomic and non-feasible. So, the intensity of development proposals may be optimized by grouping / clustering of spots. Provision of common infrastructure, not only optimize the economic involvements but also, help to keep purity of individual spots as much as possible. Hence, clustering has been designed based on proximity of the spots.

III. Study Area: Alwar District, Rajasthan

Location

Alwar District is a district in Rajasthan a state in northern India, with capital in the city of Alwar. The district covers 8,380 km². It is bound on the north by Rewari district of Haryana, on the east by Bharatpur and Mewat district of Haryana, on the south by Dausa, and on the west by Jaipur districts. The Ruparail River is a major river near the city. As of 2011 it is the third most populous district of Rajasthan (out of 33) after Jaipur and Jodhpur.
Table 1: Selected tourist sites in Alwar district

<table>
<thead>
<tr>
<th>S.No</th>
<th>Tourist Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Daha Quila</td>
</tr>
<tr>
<td>2</td>
<td>Vijay Mandir Palace</td>
</tr>
<tr>
<td>3</td>
<td>Siliserh Lake</td>
</tr>
<tr>
<td>4</td>
<td>Sariska Palace</td>
</tr>
<tr>
<td>5</td>
<td>Sariska National Park</td>
</tr>
<tr>
<td>6</td>
<td>Bhangarh Fort</td>
</tr>
<tr>
<td>7</td>
<td>City Palace</td>
</tr>
<tr>
<td>8</td>
<td>Moosi Maharani ki Chatri</td>
</tr>
<tr>
<td>9</td>
<td>Bhantrihari Baba Temple</td>
</tr>
<tr>
<td>10</td>
<td>Company Garden</td>
</tr>
<tr>
<td>11</td>
<td>Neelkoth Temple</td>
</tr>
<tr>
<td>12</td>
<td>Jaissamand Lake</td>
</tr>
<tr>
<td>13</td>
<td>Neemrana Fort</td>
</tr>
</tbody>
</table>

Level-1: Attribute and Weight Assignment

Three broad aspects namely physical, social and environmental have been considered as level-1 attributes in connection with assessing tourism potential. So, three different weights are considered

Physical- Wp Social- Ws Environment- We

A total weight has been assigned to each tourist site for their Physical, Social and Environment attributes.

Figure 4: Weight assigned for various attribute of a tourist site
Source: Primary Survey, 2017

City palace shows the lowest weight in all Physical, Social and Environment attribute as the site has been converted to a government office, i.e. the ground floor of the site is being used by government officials. Thus, there is no tourist attraction or there are minimum visitors of the site. Sariska National Park has the highest weight as the park is popular amongst all the domestic and foreign tourist and attracts many tourists every year. Also it is being maintained by the Government and a lot of focus is being given for its popularity and management.

Level-2: Attribute and Weight Assignment

Each of level-1 aspect consists of set of variables those are considered as level-2 attributes. These sets are explained here under.

Physical aspects include: Conditions of Roads, Vehicular and Regional Connectivity, Vehicular accessibility, Parking facility and accommodation facility.
**Social aspects include:** Tourist influx, Safety and security for visitors, Sitting area, Hygienic conditions and cleanliness.

**Environmental aspects include:** Landscaping, Natural beauty, Open spaces, Flora and Fauna, Variety and Water in ponds/lakes.

Weights have been assigned for each tourist site through assignment of weights to each variable of level-1 aspects.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Weight assigned for each variables of each attribute</th>
<th>Source: Primary Survey, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sariska National Park</td>
<td>shows the maximum value in all three attributes followed by Sariska Palace and the lowest weight assessed is for city Palace.</td>
<td></td>
</tr>
<tr>
<td>The next highest weight is of Bhangarh Fort, as it’s popular for its haunted history. Also its proximity to National Capital Delhi and Jaipur attracts many tourists.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Level-3: Intra Attribute Scaling**

Depending upon variations in quality / quantity, each attribute is scaled in a 5-point or 3-point scaling as required. For scaling 1" refers to the worst/weakest quality and 5" indicates the best/strongest quality. For computation, the lowest value is considered as 0.2 followed by 0.4, 0.6, 0.8 and the highest being 1.

Various variables of all the tourist sites have been scaled in a range of 0.2 to 1, which gives the issues of each tourist site.

**Level-4: Computation of Aggregate Potential Value**

Total Potential \( (V) = \text{Potential Value for Physical Aspects (Vp)} + \text{Potential Value for Social Aspects (Vs)} + \text{Potential Value for Environmental Aspects (Ve)}. \)

**Figure 5:** Weight assigned for each variables of each attribute

Source: Primary Survey, 2017

**Figure 6:** Intra Attribute Scaling

Source: Primary Survey, 2017

**Figure 7:** Total Potential Value

Source: Primary Survey, 2017
Through calculating total potential value of each tourist site, City palace has obtained the lowest potential value with Sariska National Park having the highest potential value.

Further, the ranking of tourist sites has been done based on their assessment of potential values.

**Level-5: Grouping of Spots and Analysis**

The spots are clustered in groups based on proximity to provide common infrastructure as much as possible to optimize the resource. Potential of each group is measured. SWOT analysis of the spots have been done. This provides a clearer scenario for setting up proposals.

Depending upon the distance between the tourist sites and their proximity to each other, grouping of spots has been done. That is two clusters have been made; Cluster -1: Heritage and Eco Tourism Cluster and Cluster-2: Wildlife and Cultural Tourism Cluster.
IV. Conclusion

Through Weighted Sum Method analysis of all 13 tourist sites have been done and potential values of each tourist sites have been obtained. Sariska National Park has the highest potential value of 9.36 and City Palace having the lowest potential value of 1.61. Further issues and potential of each tourist sites have been obtained through intra attribute scaling of all the indicators under each Physical, Social and Environment aspect. Two clusters of tourist sites have been made on the basis of their proximity and distance between the tourist sites.

Cluster-1: Heritage and Eco Tourism Cluster

Total Potential Value of 27.48
Having the following tourist sites:
Vijay Mandir Palace, Moosi Maharani ki Chatri, Bala Quila, City Palace, Company Garden, Sisiserh Lake and Jaisamand Lake.

Cluster-2: Wildlife and Cultural Tourism Cluster

Total Potential Value of 28.88
Having the following tourist sites:
Sariska Palace, Sariska National Park, Neelkanth Temple and Bhartrihi Baba Temple.

Renovations, Illuminations, Light shows and Water sport facility for various tourist sites has been recommended. Distance between each tourist site and distance of each tourist site from Alwar Junction is calculated through Distance matrix. Distance Matrix helps to propose a tourist circuit for an area. Neemrana-Bhangarh Tourist Circuit is proposed for the district which is of 569 Kms in length and has a well-defined entry and exit points. The proposed circuit connects all the 13 tourist sites of the district. A systematic and manageable tourist plan of 3 days is prepared for tourist visiting the district. Further the proposed Neemrana-Bhangarh Tourist Circuit is connected to Golden Triangle Tourist Circuit which would increase the tourist influx of the district, contributing an increase in the tourism sector of the district. Also tourism can play a major role in economic upgradation through contributing towards the district economic development.

V. Recommendations

Provision of Official Tourist Guides

Employment opportunities can be generated by employing official tourist guides for the sites with some historical background, or having any kind of story behind the construction of these monuments. For example, Bhangarh Fort has a horror story in its past which attracts many of the tourists to visit the fort. Thus the official guides provided by State Government will help in increasing employment opportunity, source of income and also tourists visiting these sites would get some interesting stories to listen.

Figure 13: Recommendations for tourist sites

REFERENCES


