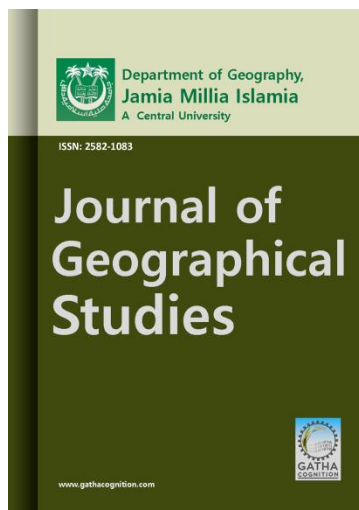




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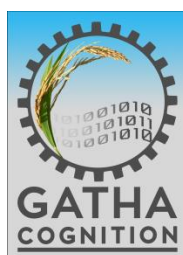
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Original Research Paper

Strategic Plan Formulation for the Tourism Sector of Bankura District using the SWOT and AHP Techniques

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Abstract

The strategic plan is important for the management of tourism resources in the particular region. However, the strategic planning for the Bankura District is still very far from being accomplished. The study was aimed to formulate the strategic plan for the Bankura District by combining the Analytic Hierarchy Process (AHP) and SWOT (Strength-Weakness-Opportunities-Threats) techniques. The methodology involved a five-step approach, which included the identification of SWOT factors, formulation of pair-wise comparison matrices and the strategy formulation using the TOWS (Threats-Opportunities-Weakness-Strengths) matrix. The data was collected both from the primary and secondary sources. The purposive sampling technique was used to interview the key stakeholders (800 tourists, 120 souvenir people and 87 tourist guides and hotel managers) and the non-participant observation technique were utilized to observe the nature of tourism in the study area. The findings of the research showed that the strength (S) and opportunity (O) factor obtained the highest priorities within the group. Therefore the S-O combination dominates in the strategic planning and management in the study area. The development of tourism may significantly contribute to the community members' feeling of pride in their area and culture by offering a supplemental source of revenue and livelihood with careful planning and implementation.

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1 INTRODUCTION

A sector that is quickly expanding and is essential to the economic growth of many nations worldwide is tourism (Brida *et al.*, 2016). In order to ensure sustainable growth and long-term success, it is becoming more and more crucial for tourist destinations and travel-related enterprises to participate in strategic planning (Aghili *et al.*, 2023). Analyzing the present situation, creating objectives, recognizing opportunities and obstacles, and designing methods to reach those goals are all parts of strategic planning (Romiszowski, 2016). The term 'Strategy' is obtained from the Greek word 'Strategos' (Garrido, 2016) which deals with destination awareness and destination modeling (Nur *et al.* 2020). Vaara and Washington (2012) identified the recent trend of the strategic plan, which strictly follows the spatiotemporal behavior and organizational framework for tourism.

Meanwhile, combinations for strategic plans have entered into the livelihood-based tourism approaches (Aazami and Shanazi, 2020) with community's carrying capacity and sustainable development (Sati and Vangchhia, 2017).

The study highlighted the National Strategic Plan (SWOT based) as a framework for resolving these problems, which identified crucial elements that may be used to raise Italy's competitiveness in the international tourist market. Costa *et al.* (2014) focused on wellness tourism (SWOT based), an expanding area that covers a variety of leisure, culture, and health-related activities. The report provided a case study of So Pedro do Sul, Portugal's largest thermal health complex, and its strategic strategy for tourism and thermalism. The strategy intended to modernize spa tourism by providing

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top-notch infrastructure and equipment, a variety of spa services, and leisure activities. The three key areas of the plan -products, space promotion, and governance-are anticipated to have favorable effects on the regional economy. [Abya et al. \(2015\)](#) focused on the developing tourism in Galugah, Iran, by using SWOT analysis to categorize different factors and QSPM to prioritize them. The results indicate that pollution and extinction of plant species due to environmental pollution and suitable climate for developing natural tourism in summer are the most important external factors. On the other hand, the intense cold of the region in summer and the existence of unique amusement places such as Amarg are identified as the most significant internal factors for tourism development in Galugah city. Similarly, [Monavari et al. \(2013\)](#), [Sotiriadis \(2015\)](#), [Selvakumar et al. \(2025\)](#) etc. highlighted on the strategic plans of tourism in several parts of the world.

However, the research papers focusing on the strategic plans in the Indian context is limited. [Agrawal \(2016\)](#) focused on the strategic plan in the Indian Tourism Industry, by considering Tour Operators, Hotel and Restaurants and Travel and Tourism Industry. The strategic plan for tourism in Goa was illustrated by [Gore et al. \(2021\)](#). The research utilized the 'Tourism Area Life Cycle' methodology to evaluate the tourism sector of Goa. Without those two to our best knowledge, hardly any research work is available on the strategic planning for tourism in India. Along with this, the research works highlighted above denoted the strategic planning without a proper objective model. This made those research works oversimplified, cannot be applicable in a broader context. This research paper has highlighted the strategic plan for tourism in Bankura District, through the Analytic Hierarchy Model based priorities of the SWOT factors; which makes the methodology justified and well-documented.

The Analytic Hierarchy Process (AHP) is a multi-criteria decision-making method developed by Thomas Saaty in the late 1970s. It is a structured approach to solving complex decision-making problems, which involves breaking down a decision into a hierarchy of criteria, sub-criteria, and alternatives. At each step, the AHP utilizes the consistency ratio, which makes the method superior than other MCDM techniques ([Raha and Gayen, 2023a](#)). The AHP method has been widely used in many fields, including engineering (i.e., [Selvakumar et al. \(2025\)](#); [Bafail et al., 2022](#) etc.), business (i.e., [Calabrese et al., 2019](#); [Suman et al., 2020](#)), healthcare ([Islam et al., 2016](#); [Ahsan and Rahman, 2017](#)), public policy ([Lee et al., 2021](#); [Salvia et al., 2019](#)) and tourism ([Görener, 2016](#); [Raha and Gayen, 2023a](#); [Raha et al., 2021](#)) to help decision-makers identify the most appropriate option among a set of alternatives. It is a useful tool for complex decision-making problems where multiple criteria need to be considered and weighed against each other. Therefore,

considering above aspects the objective of the research is to formulate the strategic plan for the tourism in the Bankura District.

2 STUDY AREA

Bankura is a district, located in the western part of the West Bengal ([Figure 1](#)). It covers 6,882 square kilometres. Bankura district had 3,596,674 people living there as of the 2011 Indian census. The district has a slightly higher population density (438 persons/square km.) than the state average. Compared to the state average of 76.26%, the literacy rate in Bankura district is lower at 70.26%. The district has a gender ratio that is 958 females for every 1000 males, which is slightly higher than the state average. With Muslims, Christians, and Buddhists making up smaller religious minorities, the district is predominately Hindu. Although other tongues like Santali and Munda are also spoken by the local tribes, Bengali is the official language of the district. Rice is the main crop grown in Bankura, whose economy is primarily based on agriculture. Handlooms and textiles are also produced in the district. In addition to brickmaking, pottery, and metalworking, Bankura has several small-scale industries.

Bankura is primarily known for its' rich cultural heritage, including traditional folk music, dance, and handicrafts. Several historical and cultural landmarks can be found in Bankura, including the Bishnupur Temples, which were built during the 17th and 18th centuries. The Mukutmanipur Dam, Susunia Hill, Joyrambati Temple, and Jhilimili Forest are also notable attractions. The Susunia Hill, the Jhilimili Forest, and the Biharinath Hill are just a few of the historical landmarks that can be found in Bankura. These locations, which are popular with hikers and nature lovers, offer breath-taking views of the surrounding countryside. The neighbourhood is also well-known for its traditional crafts, including the clay sculpture known as the Bankura Horse, which is a favourite among tourists as a memento. The neighbourhood also hosts a number of fairs and festivals, such as the Joydev Mela and the Bishnupur Mela, that highlight the customs and cultures of the area. The area has experienced an increase in tourism in recent years as more and more travellers come to experience its rich heritage and scenic surroundings. By building infrastructure and enhancing transportation options, the local government has also taken steps to promote tourism in the area.

3 MATERIALS AND METHODS

3.1 Data

A descriptive qualitative exploratory research design was followed in this research. Data was collected from both primary and secondary sources. The purposive sampling technique and non-participant observation technique were utilized in this research. The survey was done for the 800 tourists in 8 different

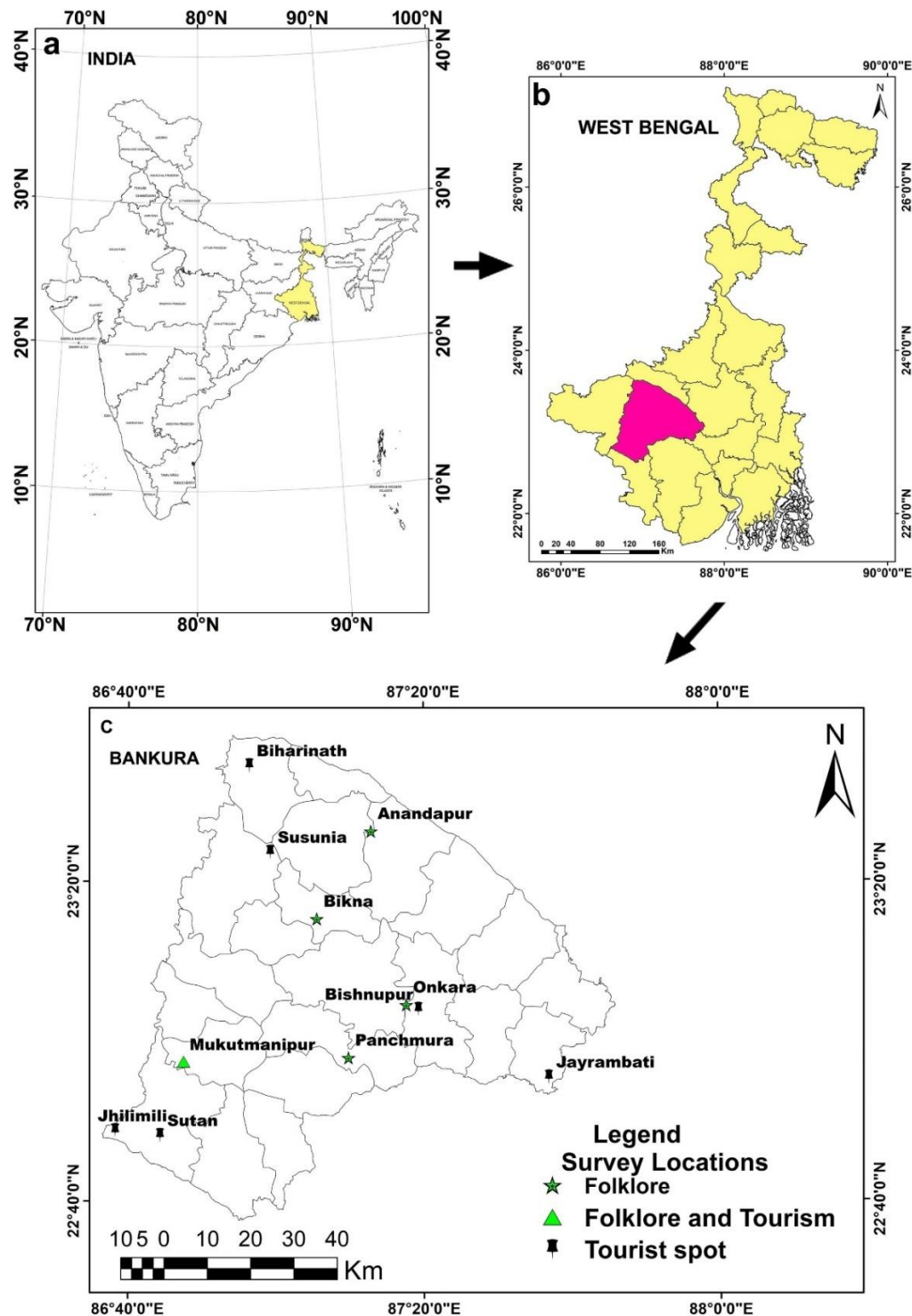


Figure 1. Study area: Bankura District in West Bengal (India)

locations (Figure 1c; Biharinath, Susunia, Onkara, Jayrambati, Mukutmanipur, Jhilimili, Sutan and Bishnupur) within the study area, 120 people were surveyed in the several categories of souvenir arts and 87 tourist guides and hotel managers were also surveyed. Within the Souvenirs; 10 people were interviewed from the *Terra Kotta* souvenir, 10 people

were selected for the *Dokra Art*, 20 people were interviewed for the *Baluchari Sari Making* and 20 people were interviewed for *Pottery*, *Leaf Pot Making*, and *Pata Chitra* each. Surveys are conducted in different villages as described in the following (Figure 1c):

- People attached with Terra Kotta are surveyed in Panchmura village,
- People connected with Dokra art are explored in the Bikna village,
- People linked with Pottery art is interviewed in the Anandapur village,
- People attached with Leaf pot making are interviewed in the Mukutmanipur,
- People stuck with Pata Chitra are observed in the Onkara village.

An intensive literature review was analysed from well-known indexing databases such as Scopus, Web of Science, Garuda, Google Scholar, and Scilit. Finally, the internal and external factors were prioritized with the help of 4 decision makers. The decision makers were selected from those, who have at least 10 years of experience in the relevant field. While taking responses, the informed consent letter was signed by those by confirming that their responses will only be used for the academic purposes without disclosing their names.

3.2 Methods

Briefly, the research holds 2 steps: which includes the identification of Strength-Weakness-Opportunity-Threat (SWOT) factors based on the recommendation of the expert panel, and the determination of the priorities based on the AHP technique. The AHP is an unbiased MCDM tool, which considers several criteria in a single window. The method (Saaty, 1980) was applied in this research with the help of the following 5 step procedures:

3.2.1 Step-1 Identification of the SWOT factors

A SWOT analysis is a strategic planning method used to assess the Strengths, Weaknesses, Opportunities, and Threats of a project, programme, or organisation (Kolbina, 2015). It is a technique for figuring out the internal and external elements that can have an impact on an entity's performance as well as its existing status and potential. Strengths (S) are intrinsic characteristics of a business or organisation that provide it an edge over rivals or aid in the accomplishment of its objectives. Strengths relate to the assets and resources that a tourism sector naturally accomplished (Hall and Williams, 2019). In this research, the natural and cultural attractions, quietude, accessibility and connectivity are considered as the strength factors (Table 1). Internal elements that might negatively affect an organization's performance and keep it from accomplishing its goals are referred to as Weakness (W). These are facets of the business that can be improved and are under its control. In this research, backwardness in the socioeconomic activities, poor-infrastructure facilities, weak community level organisation, lack of a sustainable market strategies and lack of awareness of local tourism potentials are considered as the weakness (W). Opportunities are external factors that could favourably affect the expansion, prosperity or general success of a tourism

sector (Simón-Moya et al., 2016). The role of the Govt. and NGOs, retail and lodging establishments, domestic and foreign tourists arrival, private sector initiatives, hill based adventure tourist spot and sifting nature of the pattern of tourists are the common scenarios of opportunities (O) of the tourism sector of the Bankura. A threat is an external element that could have a negative effect on the effectiveness or success of a tourism sector. Finding threats in a SWOT analysis is crucial because it enables companies and organisations to foresee possible problems and hazards and create plans to reduce or handle them (Namugenyi et al., 2019). According In this research, the extreme inflation, low adaptive capacity, weak village-level organization, lack of a sustainable market strategies are taken as the factors of threat of tourism in the Bankura.

3.2.2 Step-2 Formulation of pair-wise comparison matrices and checking consistency ratios

The pair-wise comparison matrices were formed through the relative importance of the two criteria. This relative importance was assessed by a 4 member expert panel. The local priorities of each group were estimated through the Eigen value approach. The priorities were marked using the Saaty's scale (i.e., 1 to 9; where, 1 represents equal importance, 3 represents moderate importance, 5 represents strong importance, 7 represents very strong importance and 9 represents extreme importance; 2, 4, 6 and 8 are the intermediate scales). Here, the AHP was applied using the following equations: equation (1)

$$pwc = (a_1, a_2, \dots, a_{npc}), (x_1, x_2, \dots, x_{npc}) \quad (1)$$

Where, pwc is the pair-wise comparison matrix with integers $a_i \in [0,1], x_i \in [1,M], M = 9$ and $i = 1 \dots \dots npc$, with npc is the number of pair-wise comparisons equation (2).

$$npc = \frac{n^2 - n}{2} \quad (2)$$

For, n criteria, the $n \times n$ decision matrix is then filled from pwc . For $a_i = 0$ we take x_i , for $a_i = 1$ we have to take the reciprocal of x_i . The pwc is the pair-wise comparison matrix and the npc is the number of pair-wise comparisons. Pairwise comparison matrix was created using an equal number of rows and columns. This matrix reflects the relative importance of each criterion. The factors included in the matrix were chosen from various databases and recommendations provided by different experts (Raha and Gayen, 2023a; 2023b). Consistency ratio (CR) is calculated in order to determine whether the pair-wise comparisons were consistent or not (Liang et al., 2023; Raha et al., 2024a, 2024b). The AHP has the ability to accommodate inconsistent relationships while providing a CR as a measure of the degree of consistency or inconsistency (Kubler et al., 2016). If the $CR < 0.10$, it indicates a satisfactory level of consistency to recognize the class weights equation (3) and (4):

$$\text{Consistency Ratio (C.R.)} = \frac{\text{Consistency Index (C.I.)}}{(n-1) \times \text{Random Consistency Index (RI}_n\text{)}} \quad (3)$$

$$\text{Consistency Index} = \frac{(\lambda_{\max} - n)}{(n-1) \text{RI}_n} \quad (4)$$

Where $\lambda_{\max}$ is the principal Eigen value and n is the number of factors. The randomly produced reciprocal matrices are used to create the Random Consistency Index. According to Saaty, (1980), if consistency ratio is below 0.1, the matrix becomes consistent. In each group, the component with the highest local importance is picked to represent the group. These four criteria are further contrasted, and a ranking of their importance is determined.

3.2.3 Step-3 Strategy formulation and evaluation process

The SWOT and AHP methods contribute to the strategic planning process by providing numerical numbers for the various components. According to the prioritised elements, new goals were established, strategies are devised, and implementations are planned, carefully taking these variables into account. The strategy was formulated using the Threats-Opportunities-Weakness-Strength (TOWS) matrix, which represents the combinations of every possible criteria, which contributes the tourism development in the study area. The TOWS matrix was first invented by Weihrich in 1982 serves as an expansion of the SWOT analysis, which encompasses Strengths, Weaknesses, Opportunities, and Threats. This holistic approach helps to create well-rounded and practical strategies that align a region's internal strengths with the external factors it faces (Palazzo and Micozzi, 2024). The TOWS Matrix is especially useful for identifying strategic options that may not be immediately evident through a SWOT analysis alone. It offers a clearer path for achieving sustainable growth and gaining a competitive advantage.

4 RESULTS

4.1 Evaluation matrix for internal and external factors

Table 2 demonstrates the priorities or weightage for internal and external factors. Within strength (S), natural and cultural attraction bears the highest importance or priority with 0.38 and 0.25 priority weights. The willingness of the community bears 0.1 weightage. Serenity and tranquility bear 0.16 weights. Accessibility and connectivity are noticed with 0.4 weightage, and unique activities carry 0.08 weightage. Combining all indicators, strength (S) is noticed with 0.42 weightage. Consequently, the natural and cultural attractions are marked with higher priorities (0.157 and 0.103, respectively). The willingness of community and serenity and tranquility are observed with 0.042 and 0.062 global weightages, respectively. Unique activities bear 0.031 weightage. The lowest global weightage is assigned to accessibility and connectivity.

Within Weakness (W), six parameters are identified. The backwardness of several socio-economic activities and the weak infrastructural facility are the most prominent weakness to be worked out. Overall, the above two factors bear 0.39 and 0.22-factor priorities. 0.052 and 0.03 are assigned to the above factors as the global priority, respectively. At the successive level, weak village level association (0.18 - factor weight and 0.024 - global weight), inadequate utilization of market strategy (0.03 - factor weight and 0.0045 - global weight), seasonality (0.11 - factor weight and 0.015 - global weight) and lack of awareness about tourism (0.06 - factor weight and 0.0074 - global weight) have been identified. Overall weakness (W) is noticed with 0.14 weightage.

Six opportunities (O) are identified in this framework. The lack of commercial and accommodation centers and initiatives from the Government and NGO has achieved maximum importance (0.48 and 0.23, respectively as the factor weight and 0.15 and 0.07, respectively as the global weight). At the successive levels, the arrival of foreign tourists (0.06 as the factor weight and 0.02 as the global weight), private sector initiative (0.03 as the factor weight and 0.01 as the global weight), hilly and plateau tract (0.07 as the factor weight and 0.02 as the global weight) and shift in the pattern of tourists (0.14 as the factor weight and 0.04 as the global weight) are identified. Overall, the factor Opportunity is placed with 0.32 weightage.

Under threat (T) overall, six factors are identified. Stagnation of Ethics (E) has achieved 0.49 weightage; Inflation has achieved 0.20 weightage, exploitation has been assigned with 0.13 weightage. Inadequate adaptive capacity with sustainable development, Competitive market, and extreme level of commercialization has been identified with 0.10, 0.06 and 0.03-factor weightage. Overall Threat (T) is identified with a weightage of 0.14. In every case of S, W, O and T consistency ratio is obtained as less than 0.1, so the matrix is consistent.

4.2 Formulation of strategies using Threats-Opportunities-Weakness-Strength (TOWS) matrix

Table 3 denotes the example of the formulation of TOWS matrix. Table 4 determines the estimated combined strategies for the development of tourism of Bankura. In these cases, Strength-Opportunity (S-O_i) combination dominates. First of all, the SO1 strategy follows the natural attraction and scenic beauty as well as the active role of Government and NGO to develop Bankura as a popular tourist spot. SO2 strategy follows the accessible smooth roads to reach the commercial as well as the accommodation centres. SO4 strategy denotes to make the public private partnership model to accelerate the growth of tourism in these sections. The SO3 strategy aims to attract more domestic and foreign

Table 1. SWOT factors of strategic planning

Classification	Description	Related schemes by authors
Internal factors		
Strength (S)		
S1: Natural attraction and scenic beauty	The unique natural beauty of open spaces based on different locations	Harrison and Schipani (2007)
S2: Culture related attractions	Traditional lifestyles and lifecycles of different ethnic groups including the Santhals, Mundas, and Oraons, have their own unique cultures and traditions. Particularly the Santhals are renowned for their music and dance (Chhau dance), which are fundamental to their cultural identity. In addition, several folk songs and dances like Jhumur, Nacchni Fairs, and Festivals several times of the year. Several local handicrafts also bear the local cultural attraction.	Saarinan et al. (2014)
S3: Willingness of local people	For those who are unable to support themselves through agriculture, tourism can be a good alternative source of income. However, its success is reliant on elements like the accessibility of resources, market demand, and local laws. Those who want to succeed in the tourism sector might need to pick up the necessary knowledge and skills.	Bhatta and Ohe (2019)
S4: Quietude	As a continuous section of the Deccan trap, the area was adversely affected by drought. The district's many isolated areas make it a good place for leisure and meditative tourism.	Han (2019)
S5: Accessibility and Connectivity	Although the road proximity of the region is relatively low in this region, road density is very high. Thus, various tourists (prominent 8 tourist places) places are well connected by road.	Mbaiwa (2019)
S6: Activities which are uncommon or unique	Nature trails, Rock climbing, adventure tourism, mask making, traditional handicrafts.	Mallick et al. (2020)
Weakness (W)		
W1: Backwardness of different socio-economic activities	Current agricultural and meteorological drought, an unbalanced population structure, tribal members with low levels of education, and marginalized workers are all taken into account. It is a major natural drawback of the region.	Mbaiwa (2017)
W2: Poor infrastructure	Limited lodging options, subpar signage, a dearth of tourist information centers, and subpar sanitary facilities.	Asmit et al. (2020)
W3: Weak Village level association	Although different NGOs play an active role to aware people about local tourism potential and dynamic grouping, but it sometimes looks inadequate	Budisusila et al. (2019)
W4: Lack of proper utilization of market strategy and commercialization	There are few opportunities for commercialization of the travel and tourism sector in the Bankura district. In the private sector, there aren't many players, and the government hasn't been able to foster an environment that encourages investment from the private sector. Not only that, there are a lack of training personnel, poor marketing and promotion and capacity building.	Sthapit et al. (2016)
W5: Seasonality	There exists seasonality of tourism phenomena. For example, harsh summer is the lean season and winter is the peak season.	Duro (2018)

W6: Lack of awareness of tourism potentiality	The results of various survey indicate that the potential for tourism in the study region is not well known by the locals from various livelihood sectors.	Sultana and Khan (2018)
External Factors		
Opportunities (O)		
O1: Initiatives from government and NGOs	Efforts by the national and state governments to promote tourism in rural India as a means of supplementing the traditional farm-based economy and reducing poverty.	Deshpande (2019)
O2: Retail and lodging establishments.	The various C. D. Blocks in Bankura currently have many hotels and homestays, which limits the potential growth of a sizable tourist cluster.	Estrada et al. (2015)
O3: Arrival of domestic and foreign tourists	The comprehensive West Bengal Tourism Policy Report (2014) reveals that there is a constant growth in the arrival of tourists in the last few years.	Nikolic et al. (2015)
O4: Private sector initiative	A number of private sectors are now making efforts to build local infrastructure for tourism. Because Yes Bank is dedicated to fostering community-based tourism in Bankura and Purulia, their 'Edge of India' project merits attention in this context.	Ali et al. (2021)
O5: Perfect hill based adventure tourism spot	Adventure tourism activities like hiking, rock climbing, rappelling, camping, and wildlife safaris are available in these locations. Particularly the Susunia Hills are well known for their rock formations, which draw hikers and rock climbers from all over the nation. Lack of hilly tracts in another part of West Bengal. Biharinath and Susunia are the perfect	Ahmed and Saeed (2020)
O6: Shift of pattern of tourists	In search of immersive experiences that let them engage with the locals and their culture, tourists are now looking to explore the neighborhood beyond its well-known tourist attractions. They want to become familiar with the regional history and customs, sample the cuisine, take part in cultural events, and learn about the traditional arts and crafts. Therefore, the rural tourism, culinary experiences, adventure tourism and cultural tours are now spreading within the Bankura. Bikna village (Dokra art), Panchmura village (i.e., Horse making), Bishnupur village (Archaeological temples), Chenchuria (Eco-park), Mukutmanipur (Dam and Scenic beauty), Jhilimili and Sutan village (Forest and Scenic beauty) are the prominent art and cultural spot within the Bankura.	Cohen and Cohen (2012)
Threats (T)		
T1: Barrier of inflation in local and global market	The local tourism industry may be negatively impacted by price hikes and inflation, which may result in fewer visitors, less money spent on travel-related goods, and a downturn in the local economy.	Meo et al. (2018)
T2: Exploitation	Exploitation of local culture and peace by the tourists	Abram et al. (2021)
T3: Low adaptive capacity with sustainable practice	Adaptation with Sustainable Tourism Criteria for India (STCI) is getting difficult because of the high cost is involved in it	Hartman (2018)
T4: Competitive Market	Competition with other national and international destinations has also become a key factor.	Horng and Tsai (2012)

T5: Adaptation with extreme commercialization	Extreme commercialization of local folk and traditional handicrafts makes the local culture vulnerable.	Kaján and Saarinen (2013)
T6: Stagnation of Ethics	Ethical behavior is fundamental in overall sustainability practices. But in most cases, ethical behavior becomes stagnated with extreme digitization and commercialization.	Weaver (2015)

Table 2. Priorities of SWOT groups in strategic planning perspectives

SWOT Groups	Priority of the group	SWOT factors	Consistency Ratio	Priority of the factors in the group	Overall Priority (Group weight× priority factors)
Strength (S)	56.1%	S1: Natural attraction and scenic beauty	2.5%	41.0%	0.229
		S2: Cultural attraction and rich art-craft		22.1%	0.123
		S3: Willingness of community to participate		16.7%	0.093
		S4: Remoteness with peace		10.5%	0.059
		S5: Accessibility and connectivity		6.1%	0.034
		S6: Uncommon unique but accessible activities		3.6%	0.020
Opportunity (O)	21.0%	O1: Initiatives from government and NGOs	3.4%	41.3%	0.087
		O2: Accessibility of commercial and accommodation centers		23.2%	0.049
		O3: Arrival of tourists		11.3%	0.027
		O4: PPP model with the public and private sector initiative		12.2%	0.026
		O5: Hilly and plateau tract		7.7%	0.014
		O6: Shift of pattern of Tourists		4.3%	0.009
Weakness (W)	14.8%	W1: Backwardness of different socio-economic activities	4.5%	33.4%	0.049
		W2: Tourist support infrastructure, which is inadequate in nature.		26.6%	0.039
		W3: Weak Village level association		19.0%	0.028
		W4: Lack of proper utilization of market strategy and commercialization		6.9%	0.010
		W5: Seasonality		9.9%	0.015
		W6: Lack of awareness of tourism potentiality		4.1%	0.006
Threats (T)	8.1%	T1: Barrier of Inflation in local and global market	4.7%	42.7%	0.035
		T2: Exploitation of culture		14.0%	0.011
		T3: Low adaptive capacity with sustainable practice		15.0%	0.012
		T4: Competitive market		9.7%	0.007
		T5: Adaptation with extreme Commercialization		9.4%	0.008
		T6: Devoid of awareness		9.3%	0.009

Overall all matrix has a consistency ratio of <0.1.

tourists in these sections. SO5 strategy follows the availability of hilly and plateau tract, which can be a

helpful resource for the adventure tourists and finally the SO6 focuses on the shifting nature of the pattern of

the tourists in the Bankura. SO1 follows the S1, O1, O2 and O3. SO2 follows the combination of S2, O1 and O4. SO3 follows the S2, S3, S4, S5, O2, O3, O4, O5 and O6. SO4 follows the combination of S3, S4, S5, S6, O4, O5 and O6. SO5 follows the combination of S6, O4, O5 and O6.

Strength-Threat (S-Ti) Diversification strategies include four strategic combinations which are ST1, ST2, ST3 and ST4. ST1 has combinations of S2, T1, T3, and T4. It formulates that local homestays must be free from the service tax and commercial levies. ST2 includes combinations of S4, T1, T4 and T6 which asserts the role of quietude, inflation and lack of awareness. ST3 formulates the lack of attraction, culture, awareness, adaptation with extreme commercialization by following the combination of S1, T5 and T6. By extending the above proposals, the unique activities need to be applied into extreme competitive environment. Thus, the ST4 follows the combination of S6 and T3.

Weakness-Opportunities (W-O_i)-overview strategies include 5 combination strategies. WO1 illustrates the sustainable market strategies, including the combination of W1, W2, W4, O1, O3 and O4. WO2 consists of a variety of W1, W5, O1 and O4, which illustrates the role of Govt. and NGOs in providing training of local people. WO3 experiences the combination of W1, W2, O1 and O4 to provide tourist support infrastructure by PPP model. WO4 includes in developing community-level organizations for the development of efficient tourism infrastructure. WO4 is possible by combining O1, O2 and W3. WO5 asserts the promotion of fairs and festivals throughout the season. WO5 is possible by combining W5, W6, T4, T5 and T6.

Defensive strategies are possible by combining Weakness and Threat (W-T_i). WT1 describes the optimum benefit from tourism and security of local communities by combining W1, W2, W3, W4, W5, W6, O1, O2, O3, O4, O5, and O6. Stick and strong

regulation must be recommended to secure a balanced growth of tourism. WT2 (W2, W4, W6, T2, T5 and T6) argues about the use of the SDGs in protecting the nature, culture and tourism.

The description and selection of SWOT factors (Step-1 in the methodology) showed that the tourism product design and the capacity building of the stakeholders. Here, the strength and opportunity (S-O) achieve highest group priorities (56.1% and 21.0% respectively); therefore the strength and opportunity dominated in the area. Thus, it is most suitable to adopt the S-O strategies to develop tourism in the area.

5 DISCUSSION

The strategic plan formulation for the tourism sector in the Bankura District uses SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis and AHP (Analytic Hierarchy Process) techniques. The technique was applied using a 3-fold approach. The strategic plan explored the several key factors of SWOT and their relevance for the Bankura. The research is an extensive documentation of field based research and non-participant based observation technique. Further, without the research work of [Mandal and Chakraborty \(2022\)](#) no other research on strategic plan on tourism is available on this tract. [Mandal and Chakraborty \(2022\)](#) applied the strategic planning techniques in the context of community-based tourism of the Ayodhya Hills of Purulia District, West Bengal. By taking some limited SWOT factors the findings of the research stressed on the combination of Strength and Opportunities (S-O) to develop the region as a popular tourist spot. This research also emphasized on the S-O combinations and also focused on the removing of weakness and threats to flourish the Bankura as a tourist spot. The recent efforts from the government and NGO were also noticed to create a tourism hub in the Bankura-Purulia sector. The Swadesh Darshan Scheme, Prasad Scheme and Dekho Apna Desh scheme are some of the important tourism

Table 3. Example of formulation of TOWS matrix

Parameters	Strength (S) (S1, S2, S3,S4,S5, S6)	Weakness (W) (W1, W2, W3, W4, W5, W6)
Opportunities (O) (O1, O2, O3,O4,O5,O6)	SO strategies	WO strategies
Threats (T) (T1, T2, T3, T4, T5, T6)	ST Strategies	WT strategies

Table 4. Formulation of strategies using TOWS matrix

SOX Competitive strategies/(maxi-maxi)
SO1: Natural attraction and scenic beauty, initiatives from Govt. and NGO, accessibility to commercial and accommodation centers, arrival of tourists (S1, O1, O2, and O3) (nature of stakeholders in every surveyed case are farmers, tourist guides and tourists)
SO2: Initiatives from the government, cultural attraction and PPP model (S2, O1, O4) (Activity overall on a broad region is homogeneous for all tourist spots)
SO3: Quietude, Community participation, remoteness and connectivity, tourist arrival, PPP and plateau tract in Bankura (O2, O3, O4, O5, O6, S2, S3, S4, and S5)
SO4: Community participation, remoteness, accessibility, unique activities, PPP, plateau, shift of the tourist pattern (S3, S4, S5, O2, O3, O4, and O5)
SO5: Unique activities, PPP, plateau tract, shifting pattern (S6, O4, O5, and O6)
STX: Diversification strategies/ (maxi-mini)
ST1: Excessive inflation and commercialization (S2, T1, T3, T4)
ST2: Quietude, inflation, lack of awareness (S4, T1, T4, T6)
ST3: Local people are not aware about their culture, attraction(S1, T5, T6)
ST4: Unique tourism related activities with competitive market (S6, T3)
WOX/Overview strategies/(mini-max)
WO1: Sustainable market strategies utilizing the role of govt., NGOs (W1, W2, W4, O1, O3, O4)
WO2: Role of Govt. and NGOs in providing training (W1, W5, O1 and O4)
WO3: Backwardness can be overcome by PPP (W1, W2, O1, O4)
WO4: Weak village level organization could be overcome by the community-level organization (O1, O2, W3)
WO5: Promotion of fair and festivals throughout the season, be more competitive(W5, W6, T4, T5 and T6)
WTX/ (Mini-Mini)/Defensive strategies
WT1: Optimum benefit and security of local communities (Weakness all-Threat All)
WT2: Use of sustainability principles in protecting nature, culture and tourism (W2, W4, W6, T2, T5, T6)

projects from Ministry of Tourism, Govt. of India to accelerate the development of tourism sector in the country. The Dekho Apna Desh scheme aimed to help tourists financially around the 50 destinations of the country. The rich cultural heritage of the country was promoted by the scheme. The Swadesh Darshan scheme was launched initially on 2014-15 for the integrated development and monitoring of theme based tourism circuits such as the Heritage circuit, northeast circuit's etc. This research is applicable to rural and developing regions that share similar socio-economic and cultural characteristics. It enables stakeholders to assess both internal and external factors that influence the tourism sector. Through SWOT analysis, the region's tourism potential can be evaluated, identifying natural and cultural assets as well as challenges such as inadequate infrastructure. By incorporating AHP, decision-makers can systematically prioritize these factors, ensuring that strategies align with local needs and sustainable growth objectives. This approach can guide tourism planning in rural districts globally, facilitating efficient resource management, attracting investment, promoting local culture, and protecting the environment. Furthermore, the combined use of SWOT and AHP provides a structured framework for addressing specific needs in sectors like community-based tourism, cultural heritage preservation, and eco-tourism, which are crucial in

Bankura and similar regions. The model's applicability extends beyond tourism, offering valuable insights for regional development, infrastructure planning, and policy formulation in other industries. By empowering local governments and stakeholders to identify priorities and allocate resources effectively, this strategic planning approach promotes long-term economic sustainability, community involvement, and regional competitiveness in both national and international markets. The Bankura is included in the Northeast circuit of the development of the tourism sectors. It is also partially included in the heritage circuit and eco-circuit of the country. To enhance the religious tourism in India, the Prasad scheme was launched. The Bankura is also known for its' religious festivals and cultural tourism. So, for the integrated development of the sector, Bankura should be included in the comprehensive tourism planning by the respective authorities. The 3 fold approach made the tourism based planning activities easy for the Govt. and NGOs.

Further, this plan can be monitored and evaluated using a continuous, multi-tiered approach. First, key performance indicators (KPIs) will be established based on the objectives identified through SWOT analysis. These KPIs will include metrics such as the natural attractions, cultural attractions, initiatives from Govt. and NGOs, and domestic and foreign tourist arrival.

Regular data collection and analysis will be conducted to track progress on these metrics (Tambunan, 2020; Inrawan et al., 2022). An oversight committee, consisting of local authorities, tourism experts, and other stakeholders, may conduct quarterly reviews to assess progress and ensure the plan aligns with the district's long-term goals (Silwana, 2021). These reviews will help identify areas that need improvement and adjustments in strategy. Additionally, this AHP based SWOT approach in this research will guide the prioritization of corrective actions when deviations from expected outcomes are identified. By assigning relative weights to factors such as economic impact, environmental sustainability, and cultural preservation, decision-makers can focus on high-priority areas that offer the greatest benefits (Vieira da Silva et al., 2016; Kwatra et al., 2021). Annual evaluations will be conducted, using both quantitative data from KPIs and qualitative feedback from tourists and local communities (Crofts et al., 2022; Wang et al., 2020). These evaluations will serve as a basis for making any necessary modifications to the strategic plan, ensuring it remains responsive to changing market conditions, emerging trends, and stakeholder needs over time.

6 CONCLUSION

This research focused on the formulation of the strategic plan for the development of tourism in Bankura District. SWOT model with Analytic Hierarchy Process (AHP) are utilized here to measure the suitable strategic plan for tourism. Total 24 SWOT units are identified here through non-participant field observation and counting. AHP procedure was utilized here to estimate global and local weights for each SWOT units. Overall, strength (S) and opportunity (O) possessed the highest global weights and therefore, the SO combination is recommended here to develop the region as an ideal tourist spot. On the other hand, weakness (W) and threats (T) was noticed with the least weightages and therefore, these two factors need to be resolved by the practitioners and policy makers to develop Bankura. The findings of the research was discussed in the context of the recent available research papers and notable Govt. and NGO efforts. The government and NGO must work on for the continuous development of the tourism sectors within the Bankura District, West Bengal.

Furthermore, to implement the proposed strategic plan for tourism, local government agencies should prioritize infrastructure development, with a specific focus on transport, accommodation, and attractions. One way to achieve this is by investing in sustainable and eco-friendly facilities, as this not only enhances the visitor experience but also allows for the preservation of natural resources. Additionally, upgrading roads, airports, and public transport systems is crucial for ensuring seamless connectivity for tourists. In order to stimulate the growth of the tourism sector, local governments should also consider supporting local businesses through grants or tax incentives. This support can encourage the development of authentic cultural and

recreational activities that appeal to a diverse range of visitors. Furthermore, it is important for local governments to collaborate with private stakeholders and community organizations to effectively promote destination marketing and branding. By establishing partnerships with travel agencies, hotels, and event organizers, targeted campaigns can be created to highlight local attractions and cultural experiences. It is also beneficial to introduce tourism training programs to improve service quality. By doing so, the local tourism industry can ensure that visitors have the best possible experience. Furthermore, regulations that promote environmental conservation and cultural preservation are essential for ensuring sustainable growth in the tourism sector. By taking these actions, local governments can help foster a resilient tourism economy that benefits both residents and visitors.

ABBREVIATIONS

AHP: Analytic Hierarchy Process; **C.R.:** Consistency Ratio; **max:** Maximum Value; **npc:** Number of Pair-Wise Comparisons; **pwc:** Pair-Wise Comparison Matrix; **SWOT:** Strength, Weakness, Opportunities, Threats; **TOWS:** Threat, Opportunities, Weakness, Strength.

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CONFLICT OF INTEREST

There is no conflict of interest regarding publication of this article.

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