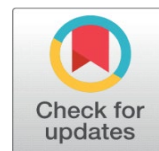# HOW TO RANK TOURIST DESTINATIONS: A LITERATURE REVIEW

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ABSTRACT

Tourism is the most prominent service industry and one of the world's fastest-growing businesses. One of the most immediate issues in the tourist business is assessing and evaluating tourism destinations. Due to the wide variety of variations across tourism sites, comparing them is a challenging process. This study focuses on various Multi-Criteria Decision-Making methods which can be used for assessing and ranking tourist destinations. Although we discovered a number of MCDM techniques for evaluating tourism destinations, they are not extensively employed. So far, the major reasons have been recognized as a lack of knowledge of the procedures, a lack of understanding of their implications, difficulties collecting data, a lack of interest, etc. The purpose of this review article is to give an overview of several MCDM approaches and their implications for ranking tourism destinations. Based on a review of relevant works of literature, this paper describes the phases, strengths, and limits of several MCDM approaches that will be beneficial in deciding which method to employ for evaluating tourism destinations.

Keywords: Tourism, Tourism Destinations, Service Industry, Ranking Methods, MCDM

1. INTRODUCTION

Tourism is a significant part of the world economy and is a fast-growing industry in many nations. For the last few decades, tourism has become one of the significant forces for economic growth in many developing and developed countries. Luo et al. (2016) The tourism industry creates a wide range of economic opportunities and employs many people in various sectors. Tourism boosts the revenues of the economy, creates thousands of employments, enhances a country's infrastructure, and promotes cross-cultural engagement. Millions of people's lives are being improved by tourism, and entire towns are being transformed. In the global economy, total international tourist arrivals grew 5% in 2018 to reach the 1.4 billion marks. At the same time, tourism-related export earnings have increased by 4% over the previous year to USD 1.7 trillion. (UNWTO 2019).

Recently, it is found that tourism can provide a significant contribution to the nation's economy. Travel & Tourism is one of the world's largest sectors, supporting 330 million jobs and generating 10.3% of global GDP in 2019 (WTTC report 2020). Even some countries' economy entirely dependent on their tourism. Tourism is considered one of the biggest service industries in the Turkish economy Önder et al. (2013). The contribution of travel and tourism to GDP in Macau SAR, China in 2019, is 91.3 % (USD 48,915.5 MN) of the total

economy. The job contribution of travel and tourism is 65.5 % of overall employment. And 81.3 % of overall exports (USD 36,961.4 MN) are invested by international visitors (WTTC 2020).

One of the most immediate issues in the tourism sector is assessing and ranking the tourism destination. Deciding on a suitable travel destination is a complicated procedure, and selecting a suitable approach is not a simple task. In the tourism context, competitiveness is defined as the capacity of tourist destinations to attract travelers and investment (e.g., infrastructure and tourist equipment), which impacts the arrival of visitors, increases employment, and the average expenditure of tourists. This last indicator tracks the economic impact of tourism on local residents and providers of services León Santiesteban and Leyva López (2017). The concept of the attractiveness of destinations (tourism attractiveness) is one of the most frequent issues studied in the theory of tourism and its adjacent disciplines in recent decades Butowski (2018). However, the use of tourist destination ranking is relatively less used as the television industry uses its ranking system (TRP or Television rating point) for determining various rates relating to that industry. Specifically, every tourist has an individual opinion about tourist center selection. Therefore, the following factors have been considered: accessible transportation, cost, belief and doctrines from history and culture, natural beauty, and entertainment Göksu and Kaya (2014). Despite the fact that several ranking methods for tourist destinations have been discovered, they are not widely used. The main reasons, so far identified, include lack of understanding of the methods, lack of understanding their implication, difficulty to collect data, lack of interest, and so on. This paper will summarize the ideas of scholars based on a study of the relevant works of literature from the aspects of exploring different Multi-Criteria Decision Making (MCDM) methods, provide a brief overview of each method, and eventually include the implications of using the ranking methods. The aim of this research is to provide a quick summary of each method, and to explain how these methods may be used to rank tourist destinations.

2. METHODOLOGY

This paper will review several articles, books, journals, and other authentic sources to explore various MCDM ranking methods used to evaluate a tourist destination. The current research is based on secondary information. This research looks at several Multi-Criteria Decision Making (MCDM) Methods for ranking tourism locations. The major objective of this research paper is to provide a general overview of various ranking methods and their importance in deciding on a tourism location.

3. MULTI-CRITERIA DECISION MAKING (MCDM) METHODS

Multi-criteria decision-making is an operation research sub-discipline that explicitly analyzes several factors in decision-making scenarios. Multiple criteria must generally be examined in making decisions, whether in our daily lives or in our professional life Gülsün et al. (2017). In real life, MCDM issues are quite prevalent. A typical MCDM problem has a number of alternatives to consider and a set of criteria to use to evaluate them. Each criterion has a performance value assigned to each option, and these values may be used to evaluate and rank the alternatives Karande et al. (2016). At present, the tourism sector is evaluated as a multi-criteria

group decision-making issue which is concerned with (a) the exploration of the whole alternatives, (b) the identification of the selection criteria, (c) the assessment of the criteria weights along with the performance ratings of alternatives by individual decision-makers, (d) the aggregation of the criteria weights and alternative ratings in order to generate the overall performance index for each alternative across the whole criteria and (e) the selection of the most suitable alternative for a particular situation Wibowo and Deng (2012). MCDM methods can be categorized in a variety of ways by different authors. Hwang and Yoon created a fundamental categorization in 1981. Based on diverse purposes and data groupings, Hwang and Yoon (1981) divide MCDM techniques into two categories: Multi-Purpose Decision Making (MPDM) and Multi-Quality Decision Making (MQDM) Arslan (2017). The most commonly used MCDM methods are Value-based methods (AHP, TOPSIS, SMARTS), Superiority methods (ELECTRE, PROMETHEE), Interactive methods (PRIAM, STEM) and other methods Göksu and Kaya (2014). Zardari et al. (2015) have identified three major categories of MCDM approaches, which are expressed as simple, original, and differentiated methods in the form of an up-to-date categorization Arslan (2017).
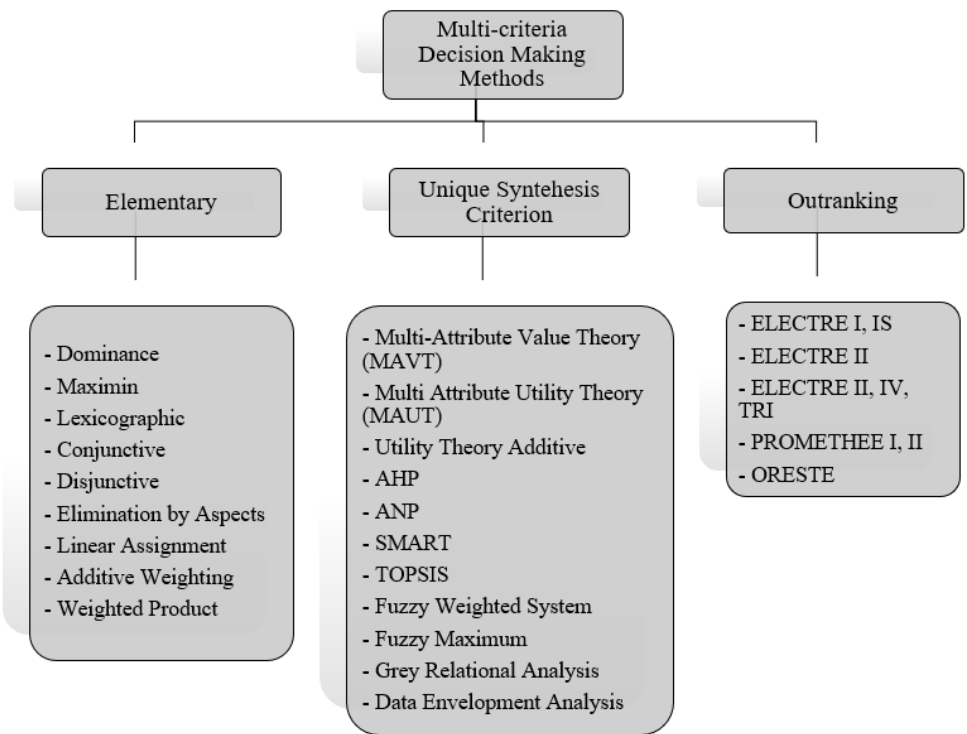
Figure 1 Classification of MCDM methods Zardari et al. (2015)

4. RANKING METHODS AND RESPECTIVE OVERVIEW

Destination attractiveness has been one of the most often studied topics in tourism theory and related subjects (tourism attractiveness). One of the decision-making difficulties that needs be thoroughly studied in order to select the best alternative among popular choices is destination selection Ali et al. (2012). Several Multi-Criteria Decision-Making (MCDM) approaches assist tourists in selecting the

best choice from the multiple options available by ranking them. In recent decades, a set of multi-criteria decision-making tools have been intensively applied to the evaluation of tourist attractiveness Butowski (2018). In this study, eight MCDM approaches such as; AHP, Fuzzy AHP, TOPSIS, ELECTRE, PROMETHEE, SMART, GRA and ANP are briefly examined in order to synthesize the opinions of many experts.

1) Analytical Hierarchy Process (AHP)

The Analytical Hierarchy Process (AHP) method is a classical multi-criteria decision-making tool developed by the American Mathematician T. L. Saaty in the 1970s, and it has been extensively studied and refined since then (1980, 1982, 1987, 1995, and 2008) Butowski (2018). The Analytic Hierarchy Process (AHP) is a qualitative method of weighing alternatives by examining key factors. It's a valuable and effective MCDM method for studying complex topics, emphasizing both mathematics and psychology. By reducing tough decisions to a series of simple pairwise comparisons and rankings, then synthesizing the results, the AHP method facilitates arriving at the best decision and provides a clear rationale for the choices made Ali et al. (2012). With the aid of the AHP approach, travelers may easily make a selection among all the options. All aspects that influence decision-making are organized into a tree hierarchy and given weights in the AHP technique. The weight determines the priority of each alternative for the overall goal. The AHP technique relies heavily on pairwise comparisons to weight criteria and indicators. The AHP constructs a pairwise comparison matrix for each level in the hierarchy using a discrete scale ranging from 1 to 9. Ruano (2018). In defining problems and pairwise comparisons, an order is required in applying AHP to determine the relationships in the structure. The hierarchical structure is depicted in a tree diagram that contains goals (problem objectives to be sought for a solution), criteria, sub-criteria, and alternatives Dharmanto et al. (2019). The analytical hierarchy process (AHP) is to create a hierarchical structure based on the topic. Goals, criteria, alternatives, and their interrelationships should all be visible. Calculating the weight of measures and sub-criteria, calculating the weight of other options, calculating the final points of alternatives, and examining the logical consistency of judgments are all parts of the analytical hierarchy process Nekooee et al. (2011).

2) Fuzzy Analytic Hierarchy Process (FAHP)

The FAHP technique is an extension of AHP that combines the Fuzzy and AHP approaches for dealing with uncertain situations. The Fuzzy Analytic Hierarchy Process (F-AHP) integrates fuzzy theory with the basic Analytic Hierarchy Process (AHP), which was developed by Saaty Saaty (1980). Fuzzy Analytic Hierarchy Process (FAHP) is a novel fuzzy systematic method for evaluating criteria that integrates a fuzzy approach with Analytic Hierarchy Process Ali et al. (2012). Because many criteria involve using fuzzy numbers, Fuzzy-AHP is a method of producing AHP that can handle fuzzy judgments. In reality, the fuzzy AHP approach is an enhanced analytical decision-making tool derived from the AHP. In the vast majority of circumstances, decision-makers are unable to assess ambiguous desires. On the other hand, fuzzy AHP approaches remove these issues by employing fuzzy comparison ratios. Göksu and Kaya (2014). Because fuzziness is a common element in decision-making problems, the FAHP approach was designed to address this issue in practical situations. Compared to AHP, which analyzes relative weights with crisp numbers, fuzzy AHP effectively depicts human ideas with the ambiguity of real-

world decision-making situations Lee et al. (2013). The Fuzzy-AHP is a frequently used MCDM approach for deciding on the best places to visit. It involves generating decisions based on several variables that represent tourist preferences. Fuzzy AHP employs a variety of scales in its applications. Converting each relation between criteria into a Triangular Fuzzy Number (TFN) and estimating the degree of possibility are the two critical components of the FAHP method. The procedure concludes with selecting a set of criteria to be used in the final assessment and ranking. Saifullah (2019). Triangular Fuzzy Number (TFN) is a frequently used approach characterized by its conceptual and computational simplicity. It is the most often used approach for defining fuzzy number memberships among the various forms Rekik et al. (2016).

3) Technique for Order Performance by Similarity to Ideal Solution (TOPSIS)

TOPSIS is a multi-criteria decision analysis approach that was first introduced by Ching-Lai Hwang and Yoon in 1981 Hwang and Yoon (1981) and then improved by Yoon (1987) and Hwang, Lai, and Liu in 1993 Hwang et al. (1981), (Liu, 1993). TOPSIS is a commonly used numerical approach of multi-criteria decision-making that relies on computer assistance and a basic mathematical model. This methodology helps to quantify relative performance in a simple mathematical form and assess the preference values of the alternatives for visitors to rank them when rating tourist destinations. TOPSIS is a multiple-criteria approach for selecting solutions from a limited number of options. The primary notion is that the chosen alternative should be the closest to the positive ideal solution while being the furthest away from the negative ideal solution. Ilban and Yıldırım (2017). Positive ideal solutions maximize benefits while minimizing costs, whereas negative ideal solutions enhance costs while minimizing benefits. It is presumptively assumed that each criterion should be maximized or decreased. TOPSIS is a simple and effective method for rating several potential solutions based on how near they are to the ideal answer Önder et al. (2013). TOPSIS makes full use of quality information to assess all the alternatives properly to rank them, and one of the preferences of TOPSIS is that pairwise comparisons are maintained a strategic distance from.

4) The ELECTRE Method

Elimination Et Choix Traduisant la Realité (Elimination Et Choice Translating Reality), abbreviated as ELECTRE, is a multi-criteria decision-making method used to evaluate some alternatives in any vital sector, such as tourist destination. ÉLECTRE is a multi-criteria decision analysis approach that was originated in the mid-1960s in Europe Wikipedia (2019). ELECTRE methods date back to 1965 when they were first proposed by Bernard Roy and his colleagues at SEMA, a European consulting firm. The term "outranking relations" is used in this strategy. Furthermore, this strategy is more than a solution; it is a philosophy of decision support, which Roy discusses in detail (1991) Eren and Özarı (2016). ELECTRE is a component of the MCDM techniques, which are quantitative techniques that allow the aggregation of several assessment criteria to choose amongst a collection of options Botti et al. (2020). The ELECTRE approach is commonly categorized as an outranking decision-making approach. Using the ELECTRE methodology, outranking relationships between the various options (Tourist destinations) can be

created León Santiesteban and Leyva López (2017). The ELECTRE approach is divided into two parts: (i) the creation of outranking relations between two alternatives using a combination of a concordance index and a discordance index, and (ii) using these connections to generate recommendations for choice alternatives. Botti et al. (2020). Despite the advantages of assessing the superiority relationship of the alternatives, the ELECTRE technique has the limitations of establishing the criterion weights randomly or subjectively and not measuring the performance scores of the alternatives Öztürk et al. (2018).

5) Preference Ranking Organization Method for Enrichment Evaluations (PROMETHEE)

The PROMETHEE approach is one of the most widely used Multi-Criteria Decision Analysis (MCDA) methods in tourist research. The PROMETHEE I (partial ranking) and II (complete ranking) were developed by J.P. Brans and Mareschal in the 1980s. The same authors proposed in 1988 the visual interactive module GAIA, which is providing a marvelous graphical representation supporting the methodology. In 1992 and 1994, they suggested two nice extensions: PROMETHEE V (MCDA including segmentation constraints) and PROMETHEE VI (representation of the human brain) Mareschal (2005). Due to the enormous number of factors, the structure of choice issues has become more complicated in recent years. Decision-makers must consider many parameters during this procedure. With several decision-makers and different criteria, the PROMETHEE technique solves complex and ambiguous choice issues. It also deals with ranking issues when there is no way to compare alternatives. They are made up of an outranking relation, a preference connection between alternatives based on multiple criteria. Rekik et al. (2016). PROMETHEE uses partial aggregation and a pairwise comparison of different actions to determine if one action outranks or not the others under particular conditions. Bottero et al. (2018).

6) Simple Multi-Attribute Rating Technique (SMART)

SMART is a multi-attribute decision-making approach that uses multi-attribute utility measurement in decision making was created by Edward in 1977 Sihotang et al. (2021). SMART is a basic approach that assigns weights to each of the criteria in order to represent their relative relevance in determining the most suitable alternative. SMART may be used for any number of options or criteria in the tourism sector for evaluating tourist destinations. The drawback of SMART is that its priority and score results differ from those of AHP. Kasie (2013). In reality, this is the simplest MCDM method for responding to decision makers' urgent requirements where the attributes are generally independent, that is, the decision maker's preference (or sentiments) for the value of one attribute is unaffected by the values of the other attributes Fishburn (1976). One of the significant features of this method which is very helpful, is that, when additional options or criteria are added to an existing comparison, any subsequent assessments do not have to start over from the beginning but may instead build on the past results Valiris et al. (2005a) .

7) Grey Relational Analysis (GRA)

The Grey Relational Analysis (GRA), which is a part of the Gray System Theory, was originally presented by professor Julong Deng, a faculty member at Hua Chung University of Science and Technology in Thailand, in 1982 Akpinar and GERŞİL (2021). Grey relation analysis (GRA) is a method to make decisions in circumstances where there are several criteria by ranking them according to their relational grade. The measurement of shifting relations between two systems or elements that occur

in a system over time is referred to as a "grey relation." The method of analysis is known as "grey relation analysis," and it analyzes the relationships between items based on the degree of similarity or difference in development patterns among these elements Guo and Sun (2016). GRA addresses MCDM issues by aggregating all of the performance criterion values examined for each alternative into a single value. It reduces the original issue to a single-criterion judgment. Following the GRA method, multi-criteria options may be easily compared Y. Kuo et al. (2008). GRA is a well-known method for ranking, decision-making, and performance evaluation, and it is a typical MCDM strategy for tackling multidimensional challenges. Grey relation analysis (GRA) is used to analyze and rank tourist destinations when the sample size is small and the sample distribution is unknown.

8) Analytic Network Process (ANP)

Thomas L. Saaty developed the analytic network process (ANP), a more general variation of the Analytic Hierarchy Process (AHP) in multi-criteria decision analysis, and explains the significance weights of the possibilities. In essence, ANP constructs the problem as a network, whereas AHP constructs it as a hierarchy. (Rekik et al., 2016). In the ANP method, a decision-making issue is split down into numerous levels, and the sum of these levels forms a network. The ANP approach is a valuable tool for combining qualitative and quantitative data. The ANP technique, on the other hand, was chosen because it considers the links between the criteria and hence provides more realistic results. Öztürk et al (2018). This method is a two-part coupling. The first one is a control hierarchy or network of criteria and sub-criteria that manages interactions. The second is an interconnected network of effects between components and clusters Reza and Majid (2013). The ANP technique, like the AHP technique, uses pairwise comparisons of the alternatives to determine the weights of the structure's components and, eventually, to rank them in the decision-making.

5. DISCUSSION

Tourism has evolved into one of the fastest-growing sectors of the economy, creating employment, driving exports, and generating wealth for many nations worldwide. One of the most challenging difficulties confronting today's tourists is determining how to evaluate and rank tourism destinations and decide what elements impact their decisions. Destination selection is one of the decision-making difficulties that should be thoroughly explored to select the best option from several options Ali et al. (2012). This study tries to help the tourists figure out the best way and choose the best alternative from many possibilities and rank tourist locations. Selecting an ideal vacation location is complex, and establishing a suitable approach for successful tourism destination evaluation is no simple undertaking. A large body of literature discusses various research methodologies used to assess and select tourism destinations Guo and Sun (2016). Several approaches known as Multiple Criteria Decision Making (MCDM) methods have been presented to aid decision-makers in rating options. Choosing an MCDM ranking technique is difficult due to the variety of accessible approaches. This paper discusses the overview of eight multi-criteria decision-making techniques such as AHP, Fuzzy AHP, TOPSIS, ELECTREE, PROMETHEE, SMART, ANP and GRA which can be used for evaluating and rating tourism locations. Some of the techniques may already be well-known to the general audience. Other methodologies were simply taken from the field of

industrial research and adapted to the tourist industry. Some are still in the developmental phases. Following the examination of the above MCDM techniques, a quick summary of these methods is provided in Table 1 , which will be useful in deciding which methods will be used in assessing and rating tourism destinations. The procedures, benefits, and limits of these eight techniques are briefly described in the table below, which will aid in determining which way will be easier to use and which will be more difficult in terms of ranking tourist destinations. The basic approach in each of these methods is to define the problem, identify the alternatives, select the MCDM method for the assessment procedure, then use the selected MCDM method to solve the problem and arrive at the best option.

Table 1 MCDM methods, strengths and limitations

MCDM methods	Stages of the Method	Strengths	Limitations	References
Analytical Hierarchy Process (AHP)	1. Determining decision hierarchy with Attributes (criteria) and Alternatives 2. Determining pairwise comparisons of attributes and alternatives 3. Determine the weights, the Maximum Eigen Value (max), and the C.I. (Consistency Index) 4. Compute the value of C.R (Consistency Ratio) 5. normalize the weights and find out the best alternative	1. Flexible 2. structured technique 3. effortlessly reasonable system 4. appropriate composite weights to each parameter 5. simplifying a multiple criterion problem 6. does not require a large sample 7. Because of the hierarchical structure, each criterion may be more concentrated and visible.	1. The challenge of allocating weights becomes more complicated when more decision-makers are involved. 2. can't unravel non-straight models 3. When goals and options are interconnected, a hazardous situation emerges.	Moktadir M et al. (2017) Crisostomo& Gustilo(2019) Božic (2016) Božić (2018) Socaciu et al. (2016) Kumar (2017a) Karthikeyan et al. (2016)
Fuzzy Analytic Hierarchy Process (FAHP)	1. Define the Problem 2. Create a comparison matrix 3. Checking for consistency 4. Set up Triangular Fuzzy Number (TFN) 5. Calculate the fuzzy vector's weight value. 6. Ranking and selection of decisions	1. The advanced analytical decision-making method handle fuzzy decisions 2. deals with ambiguous or not well-defined situations. 3. scientific framework 4. collect the qualitative and quantitative data effectively	1. Fuzziness 2. complex calculation 3. Difficulty when confronted with a problematic issue.	Dwi Putra et al. (2018) Lee et al. (2013) Ali et al. (2012) Göksu and Kaya (2014) Saifullah (2019)
Technique for Order Performance by Similarity to Ideal Solution (TOPSIS)	1. To establish the decision matrix for the ranking 2. To calculate the normalized decision matrix 3. To calculate the weighted normalized decision matrix using its associated weights. 4. To determine the positive and negative ideal solutions 5. To calculate the separation measures from the positive ideal solution	1. The use of a basic ranking system uses all of the information that has been given to them. 2. The technique is logical and understandable 3. the notion is expressed mathematically in a straightforward manner. 4. The computing procedure is relatively easy, and	1. The approach is based on Euclidean distance, in theory; therefore, negative and positive numbers have no impact on computations. 2. The findings are heavily influenced by a significant divergence of	Göksu and Kaya (2014) Siksnelyte et al. (2018) Jato-Espino et al. (2014) Shih Shih et al. (2007) Emre Boran et al. (2009)

	6. To calculate the relative closeness of the alternative. The index value ranges from 0 to 1. The greater the index value, the more important the options are.	the results are obtained quite rapidly.	one indication from the optimum result.	
The ELECTRE Method	1. Construction of Decision Matrix 2. Calculation of the Normalized Decision Matrix 3. Calculation of the Weighted Normalized Decision Matrix 4. Determination of the Concordance and Discordance Sets 5. Construction of Concordance and Discordance Matrix 6. Determine the Concordance Dominance and Discordance Dominance Matrix 7. Determine the Aggregate Dominance Matrix 8. Eliminate the less favorable alternative and rank them	1. provide a sensible and straightforward computation 2. examining the superiority relation of the alternatives 3. Decision Support Systems (DSS) method	1. determining the criteria weights randomly or subjectively not calculating the performance scores of the alternatives 3. Less adaptable	Eren and Özarı (2016) Nawir et al. (2017) Öztürk et al. (2018) Eren and Özarı, (2016)
The PROMETHEE Method	1. Obtain an assessment matrix and compare them pairwise, taking into account each and every criterion. 2. Assigning a preference function with values ranging from 0 to 1 depending on the pair difference 3. creating a global matrix and calculating the rank by adding the column that expresses which option is superior to the others.	1. useful where several choices are tough to harmonize 2. uses both qualitative and quantitative data 3. Calculations can take into account uncertain and fuzzy data.	1. The calculation procedure is time-consuming. 2. Calculations are quite difficult.	Brans JP (1985) Kumar et al. (2017a) Siksnelyte et al. (2018) Kumar et al. (2017b) Amaral and (2014) Brans and Vincke (1985)
Simple Multi-Attribute Rating Technique (SMART)	1. Identification of criteria and alternatives 2. Give preference weight to criteria 3. Normalization of preference weight 4. Giving score to attribute for each alternative 5. Calculating or determining the utility value 6. Aggregation of utility values with preference weight	1. Independent of the alternatives 2. Simplest method 3. Values of one attribute are not influenced by the values of others. 4. No limitation for attributes or criteria 5. A good degree of accuracy	1. Priority and score result is not equally consistent with AHP. 2. limitations in the class of each attribute 3. consistency limitation as compared to AHP.	Sihotang et al. (2021) Valiris et al. (2005b) Kasie (2013) Fishburn (1976) Risawandi and Rahim (2016)

Grey Relational Analysis (GRA)	1. Preparing data set and construct decision matrix 2. Constructing reference series and compare matrix 3. Normalization process and constructing normalization matrix 4. Constructing absolute values table 5. Calculating the grey relational coefficient for each alternative 6. Calculating the grey relational degree	1. simplifies and facilitates the assessment process 2. meaningful & flexible 3. easy to compute and understand 4. doesn't require a large sample size	1. a limited number of criteria and alternatives 2. poor, limited, and unreliable information 3. a failure to look at the alternative's outcome indicators	Pourmohammadi et al. (2018) Guo and Sun (2016) H-H (2002) Jiang H Lin J-Y (2017) Akpinar and GERŞİL (2021) MT (2015)
Analytic Network Process (ANP)	1. The problem is defined, and a decision model is established 2. The relationships between the criteria of the problem and its sub-criteria are determined. 3. Priority vectors are calculated from pairwise comparisons between the criteria. 4. Consistency analyzes of comparison matrices are performed. 5. Super matrics is created The best alternative is chosen. 6. The best alternative is chosen.	1. A useful tool for prediction 2. provides more realistic results 3. allows the ease of usage of the qualitative and quantitative data together. 4. using inner dependency of elements	The complexity of deciding on a final decision	Reza and Majid (2013) Öztürk et al. (2018) Hadiwijaya et al. (2018)

Aside from these eight MCDM techniques, there are a few more that aren't covered in this research, such as; PRIAM, STEM, VIKOR, DEA, TODIM, SAW and other MCDM techniques. All of these MCDM methodologies can also be used for tourist destination evaluation. Tourists can analyze and evaluate tourist attractions using any of these MCDM methodologies. As previously stated, MCDM is based on the comparison of alternatives (available options), criteria (measuring parameters), and their combinations. All of the strategies that aid in achieving an ideal condition of outcome are essentially a mix of these key elements. Despite the numerous benefits of the above-mentioned MCDM methods in Table 1, visitors seldom employ these approaches due to restrictions such as difficulties of understanding the approaches, a lack of comprehension of their implications, a lack of interest, and so on. For a proper appraisal of tourism destinations, these constraints must be overcome. This research is entirely based on the literature and focuses on eight MCDM techniques, which are briefly summarized in Table 1. Despite the fact that a thorough overview of these approaches was provided, a checklist of these eight MCDM methods is presented here based on Table 1 and the preceding discussion.

	AHP	FUZZY AHP	TOPSIS	ELECTREE	PROMETHEE	SMART	ANP	GRA
Pairwise comparison of alternatives	√	√	√		√		√	
Calculation of weights of each alternative	√	√					√	
Compute consistency ratio	√	√					√	
Triangular Fuzzy Number (TFN)		√						
Calculate Normalized decision matrix			√	√				√
Decision Support Systems (DSS) method				√				
No limitation for attributes or criteria						√		
It doesn't require a large sample size	√	√						√
Determine the positive and negative ideal solutions			√					
Collect both qualitative and quantitative data		√			√		√	
Provides more realistic results							√	
Determination of the Concordance and Discordance Sets				√				
Handle uncertain, fuzzy and ambiguous decisions		√			√			
Calculations are quite difficult.		√		√	√			
Easy to compute and understand			√			√		√
Independent of the alternatives						√		
The complexity of deciding on a final decision							√	

6. CONCLUSION

Based on the summary and review of related literature about evaluating tourism destinations, it is viewed that multi-criteria decision-making (MCDM) methods are feasible assessment scale for ranking tourism destinations by comparing the results of many options. In the tourism sector, there is a lot of potential for using these ranking systems to rate tourist destinations. This research examines eight MCDM techniques for evaluating tourism locations. It is evident from this study that the Fuzzy AHP, ELECTREE, and PROMETHEE techniques are more challenging than the others, and they are used to calculate uncertain, fuzzy, and ambiguous data. On the other hand, AHP, TOPSIS, SMART, ANP, and GRA are less difficult than the previous three. According to the literature study, the AHP technique is the most common ranking system, whereas SMART is the easiest one. These eight techniques may all be used to rank tourist destinations. This study will enrich the existing literature related to MCDM methods. In rating tourism sites, the study highlights the use of MCDM methods. Furthermore, MCDM approaches are briefly examined, along with their unique characteristics. The discussion claims that employing these methodologies, tourist destination research has provided numerous outcomes and provided a solid platform for future study, based on a review of relevant literature. Only the theoretical elements of some MCDM ranking methods are covered in this study. This study can be useful for the researchers to conduct further study in a ranking system. It will also help researchers to pursue their studies related to ranking alternatives in different fields.

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